

## SONOMA STATE UNIVERSITY

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2011-2012


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www.sonoma.edu/catalog

# WELCOME TO SONOMA STATE UNIVERSITY 

www.sonoma.edu


#### Abstract

When planning your academic career at Sonoma State University this General Catalog will serve as one of your main reference tools. Another source of information is the website - www.sonoma.edu which should be consulted in conjunction with the catalog in case there have been any changes since publication of this book. You should also check with individual academic departments and administrative offices, either by phone or in person, to make sure that you have the most current information.


## ABOUT THIS CATALOG

## Changes in Regulations and Policies Published in the Catalog

Although every effort has been made to assure the accuracy of the information in this catalog, students and others should note that laws, rules, and policies change from time to time and that these changes may alter the information contained in this publication. Changes may come in the form of statutes enacted by the State Legislature or rules and policies adopted by the Board of Trustees of the California State University, by the chancellor or designee of the California State University, or by the president or designee of the campus. It is not possible in a publication of this size to include all the rules, policies, and other information that pertain to students, the institution, and the California State University. More current or complete information may be obtained from the appropriate department, school, or administrative office.

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ABOUT SSU

## A WORD FROM THE PRESIDENT


\/elcome to Sonoma State University. You join approximately 8,200 other students at this campus who are pursuing a college degree. As you are aware, a college degree is more crucial than ever in order to succeed in today's ever-changing world.

Sonoma State University is an ideal place to live and learn. This campus highly values student satisfaction, retention, and graduation. We are eager to help you succeed in your educational goals and career plans.

This university has many attributes that will serve you as a student. It is a beautiful campus with a strong sense of community. It is also a place for opportunity and personal growth made possible through a student-centered learning environment. I predict you will experience each over the next few years. Here you will find relatively small classes with faculty who are committed to your scholarship and intellectual progress.

Scan the hundreds of course offerings in this catalog. They are the foundation of our high quality educational programs designed to develop your intellect, increase your understanding of yourself and others, and prepare you for the diverse challenges ahead.

Sonoma State University's deep commitment to the teaching and learning of the liberal arts and sciences has shaped a top-notch university experience. You can be proud to attend Sonoma State University and I know you will be proud to be called an alumnus of this university in just a few years.

As with all exploration, the pursuit of knowledge is rigorous and demanding. But if you accept the challenge, you will find your life is immeasurably enriched. I invite you to join us in our common adventure and wish you the greatest success.
— Ruben Armiñana, Ph.D.

## Where is SSU?

Sonoma State University occupies 269 acres in the beautiful wine country of Sonoma County, in Northern California. Located at the foot of the Sonoma hills, the campus is just an hour's drive north of San Francisco and 40 minutes away from the Pacific Ocean.

## What's special about SSU?

Sonoma State University, a small campus of 9,000 welcoming students, is dedicated to the liberal arts and sciences. Our students enjoy a high quality education that features close interactions with faculty, research and internship opportunities and SSU's status as one of the premier public undergraduate institutions in the state.

SSU strives to graduate students who are ready to pursue fulfilling careers in our changing world, and who are prepared to make informed decisions that benefit their own lives, as well as the lives of their families and communities.

## How and when do I apply?

Sonoma State University is part of the California State University System and uses admissions procedures established by the CSU. Electronic versions of the CSU undergraduate and graduate applications are accessible on the World Wide Web at www.csumentor. edu/. The CSU Mentor system allows students to browse through general information about CSU's 23 campuses, view multimedia campus presentations, send and receive electronic responses to specific questions, and apply for admission and financial aid.

Applications also may be obtained online or at any California high school or community college or from the Office of Admission at any of the campuses of the California State University. The SSU Office of Admissions and Records is located on the second floor of Ruben Salazar Hall, and the phone number is (707) 664-2778.

Admission at Sonoma is competitive and students are encouraged to apply during the specified filing period. For entry in the fall semester, the filing period is October-November with the final date to file November 30.

Some of the programs in the highest demand are called "impacted programs." These programs receive more applications during the filing period than can be accommodated. In such cases, you must meet supplementary admission criteria if applying to an impacted program. A list of impacted majors can be found at http://www. sonoma.edu/ar/prospective/ftt/freshmenhighdemand.shtml.
Applications will be accepted after the initial filing period on a rolling basis provided space is available in the student's preferred major.

## Where will I live?

The Residential Community provides comfortable, convenient campus housing for 3,200 single students. The Community is a unique mix of nontraditional residence hall suites and campus apartments, all located just minutes from the campus classroom buildings.

All suites and apartments are fully furnished and carpeted and have their own living rooms, bathrooms, and some have kitchens with all appliances. The suites and apartments are wired into the University's computer network, giving residents wireless access to University computing resources, the library, and the Internet. The Community has its own dining hall, swimming pools, study rooms, convenience store, post office, meeting rooms, game room, and outdoor recreation areas.
Thirty percent of our students are housed on campus. For those students who choose to live off-campus, the Housing Services Office maintains a listing of available rental accommodations in the local area. This listing, accessible online on Housing's website, includes rental houses, apartments, and rooms in private homes.

## What are my annual costs?

For the 2009-10 academic year, fees for undergraduates who are California residents enrolled in 6 units or fewer is $\$ 1,799$ per semester. For a class load of 7 units or more, the cost is $\$ 2,645$ per semester. Nonresident tuition is an additional $\$ 372$ per unit. For a complete list of fees and other charges, see the 2009-10 schedule of fees in the section of this catalog titled "Fees, Expenses, and Financial Assistance" or go online to www.sonoma.edu/ar/registration/fees.shtml.
With other costs, such as housing, books, meal plans, various course fees, and incidentals, an in-state student can expect to pay between $\$ 15,500$ and $\$ 23,500$ each year. Fees for international students are listed in the section of this catalog on admissions procedures for international students.

## What about financial aid and scholarships?

Nearly 35 percent of our students receive some type of financial aid, while 27 percent receive grants or scholarships. We participate in all state and federal financial aid programs. The University's merit, athletic, and talent scholarship programs total more than $\$ 600,000$ in awards.
You should apply for financial aid in January. Each year, the priority filing date for the FAFSA (Free Application for Federal Student Aid) is March 2. Some types of financial aid are available if you apply after that date.
You should apply for scholarships at the same time you apply for admission to the University. If you are applying for spring admission, you should apply for scholarships for the following fall semester. The scholarship applications are available in October of each year, and the deadline for your application and any supporting materials to be received or postmarked is January 15 of each year.
For complete information on Sonoma State University fees and our financial aid and scholarship programs, see the Fees, Expenses, and Financial Assistance section in this catalog.

## How do I register for my classes?

All registration is conducted online. For new students at Sonoma, your first experience is Summer Orientation. This program gives you an opportunity to register for your first classes online, make friends with fellow students, and become acquainted with the campus and the area. Faculty, staff and student advisors assist you before and during the registration process. Other orientation programs are available for transfer students.
All entering students are assigned an advisor in their academic department. One-third of new students who enroll do not have a declared major and receive academic advising from professional staff members in the Advising Center on the first floor of Salazar.
The Educational Mentoring Team is highly recommended to provide advising for all first-time freshmen. Each EMT consists of a faculty member, student services professional, and a peer advisor. The EMT program helps students begin their educational career with the appropriate coursework and career planning.
Advising for upcoming semesters takes place in the departments. Students register for classes on the Web. For more details on registration, see Admissions; for details on advising, see Student Academic Services. The section on Degree Requirements will help you plan your course of study.

## What about technology?

One of the first universities in California to require computer access of all its entering freshmen, Sonoma State continues to lead the curve in its use of technology. Our designation as one of the Top 100 Wireless Universities in the United States is just one example of the highly sophisticated, technological environment you will discover at Sonoma.
In addition to registration via the Web, you will receive all official communication from the University online. As you progress through your coursework, you will experience technology in a variety of settings, from an online chatroom from your residence hall to a classroom that allows the professor to send and receive screenshots to and from students.

## How can I personalize my education?

There are a number of ways to pursue your interests. Each year, many students take advantage of the study abroad programs, traveling to a host University or special study center in one of 20 countries.
Through a variety of internships, students can gain practical experience or academic credit in settings that are related to their career.
Many volunteer opportunities are available, such as the JUMP program offered through Associated Students. In some situations, credit may be earned for volunteer experiences, while providing valuable service to the community.

## How can I become involved?

The more you're involved in the life of the campus, the more rewarding your college experience will be. Sonoma has more than

100 registered student clubs and organizations on campus. Whether your interests are student government, athletics, recreational sports, Greek organizations, or the arts, you will find many opportunities to develop leadership roles.
Working for paid leadership positions or other on-campus jobs is one way to get involved. Paid leadership positions include community service advisors, peer advisor roles in living-learning communities, Summer Bridge and Summer Orientation leaders, and peer mentors. For more information on these positions, see http://www. sonoma.edu/saem/leadership/. For on-campus job opportunities, see http://www.sonoma.edu/sas/crc/student.shtml.
Sonoma State University is a Division II member of the NCAA and sponsors 13 intercollegiate programs: five for men - soccer, basketball, baseball, tennis, and golf - and eight for women - soccer, cross country, volleyball, basketball, softball, tennis, water polo, and cross country. SSU teams have been extremely successful at all levels capturing three national championships and 31 conference championships since 1990.
Another way for students to get involved is through the Student Ambassadors. These students represent SSU at the campus and community levels, and work with the Alumni Association to keep current students and alumni connected.
The performing arts are alive and well at SSU. More than 140 performances in drama, dance, and music are given each year. Whether you prefer to sing Bach or Indian, or play modern jazz or classical guitar, there is a place for you at SSU. A wide variety of ensembles are open to students of all majors and to members of the community.

## What fun can I find off campus?

With the coast and the mountains within easy reach, there is always plenty to do outside the classroom. Outdoor Pursuits, located in the Recreation Center, sponsors a variety of activities all year, including hiking, biking, skiing, river rafting, and camping.
The local area and the communities of Santa Rosa, Petaluma, and Sebastopol offer an abundance of activities - from festivals and farmers' markets to several symphonic, chamber music, and theater groups. The campus is just an hour's drive from beautiful San Francisco and the Bay Area.

## Already thinking about graduation?

On a beautiful day in May, you will join the thousands of Sonoma State University graduates who have come before you.
SSU Career Services works closely with new graduates and offers several job placement programs. Graduates have access to informational resources, such as job listings, workshops, job fairs, and other employment search services.
Today, there are more than 50,000 Sonoma State alumni. The SSU Alumni Association works to maintain a strong bond between the University and its alumni. In addition to offering the many advantages of membership in the organization, the Association sponsors student scholarships and special events for alumni throughout the year, including the Distinguished Alumni Awards.

## MISSION, HISTORY, ACCREDITATION

## Our Mission

The SSU mission is to prepare students to be learned men and women who:

- Have a foundation for lifelong learning,
- Have a broad cultural perspective,
- Have a keen appreciation of intellectual and aesthetic achievements,
- Will be leaders and active citizens,
- Are capable of pursuing fulfilling careers in a changing world, and
- Are concerned with contributing to the health and well-being of the world at large.

To achieve its mission, Sonoma State University recognizes that its first obligation is to develop and maintain excellent programs of undergraduate instruction grounded in the liberal arts and sciences. Instructional programs are designed to challenge students not only to acquire knowledge but also to develop the skills of critical analysis, careful reasoning, creativity, and self-expression. Excellence in undergraduate education requires students to participate in a well-planned program that provides both a liberal education and opportunities for specific career preparation.
The University offers a wide range of traditional disciplines, as well as interdisciplinary programs, so that students are able to explore diverse modes of inquiry, the understanding gained within the various disciplines, and a global spectrum of ideas, institutions, values, and artistic expressions.
The University offers selected professional and graduate programs leading to master's degrees, teaching credentials, and certificates in various career fields. These programs respond to regional and state needs within the academic, business, education, and professional communities.
The quality of the educational experience relies on close human and intellectual relationships among students and faculty to foster the open exchange of ideas. The University is committed to creating a learning community in which people from diverse backgrounds and cultures are valued for the breadth of their perspectives and are encouraged in their intellectual pursuits. The University's special character within California education emerges from its small size; its commitment to high standards of scholarship and ongoing professional development; and its promotion of diversity in the faculty, staff, and student populations.
The University also recognizes its obligation to serve as an educational and cultural resource for people in the surrounding communities. It offers courses, lectures, workshops, and programs that are open to the public. Special events in the arts, the sciences, and athletics contribute to the intellectual and cultural life of students and the community.

## Our History

The California State Legislature established Sonoma State College in 1960.

The college opened in temporary quarters in Rohnert Park in fall 1961 under the leadership of founding president Ambrose R. Nichols, Jr., with an enrollment of 265 upper-division students. Most of the faculty and administrators of the Santa Rosa Center of San Francisco State College, which had served the region since 1956, joined the new college. The center's elementary education, psychology, and counseling programs were the principal offerings.

The college grew steadily, developing academic programs based in the traditional liberal arts and sciences, as well as in career and professional programs, all the while emphasizing close studentfaculty interaction. The college moved to its present 274-acre site in 1966, upon completion of Stevenson and Darwin halls. Excellent new facilities have been constructed, and the grounds have been extensively landscaped, creating one of the most attractive, modern, and well-equipped campuses in the state. In 1978, University status was granted, and the name was changed to Sonoma State University.

The University now enrolls more than 7,500 students and offers 43 bachelor's degrees, 14 master's degrees, and 9 teaching, specialist, and service credentials.

## Accreditation

Sonoma State University is fully accredited by the Western Association of Schools and Colleges. In addition, individual program accreditations have been granted by the American Chemical Society, the Association to Advance Collegiate Schools of Business, the National Association of Schools of Music, the National League for Nursing, the National Association for Schools of Art and Design, and the Council for Accreditation of Counseling and Related Educational Programs. The School of Education is accredited by the National Council for Accreditation of Teacher Education, and its programs are approved by the California Commission on Teacher Credentialing.

The University is also a member of the prestigious Council of Public Liberal Arts and Colleges (COPLAC), an association of public colleges and universities whose primary mission is ensuring that fine undergraduate liberal arts and sciences education is available to students in the public systems of higher education. SSU is the only California member of COPLAC.

## WASC Contact Information:

Western Association of Schools and Colleges
985 Atlantic Avenue, Suite 100
Alameda, CA 94501
Tel: (510) 748-9001
Fax: (510) 748-9797
E-mail: wascsr@wascsenior.org
Website: www.wascweb.org

## ACADEMIC CALENDAR 2011-12

For the most current calendar information, see the website: www.sonoma.edu/university/calendars.shtml.

## 2011-2012 Academic Year

## FALL SEMESTER 2011

Aug. 22 University Convocation
Aug. 23 Orientation and Advising
Aug. 24 Instruction begins
Sept. 15 Deadline to apply for December 2010 graduation
Dec. 2 Last day to submit master's theses and projects to Graduate Studies Office

Dec. 9 Last day of instruction
Dec. 12-16 Final examinations
Dec. 22 Semester ends

## Holidays

Sept. 5 Labor Day, campus closed
Nov. 11 Veterans Day observance, campus closed
Nov. 23-25 Thanksgiving, campus closed Thursday and Friday
Dec. 25- Holiday recess, campus closed Jan. 1

## Intersession 2012 (Special Session)*

Jan. 3-24 Intersession classes in session
Jan. 16 Martin Luther King Jr. Day, campus closed

* Brochure and course schedule are available in the School of Extended Education Stevenson Hall 1012.


## SPRING SEMESTER 2012

Jan. 12 Faculty Work Day: Faculty Retreat
Jan. 13 Faculty Work Day: School Meetings
Jan. 16 Martin Luther King Jr. Holiday, University closed
Jan. 27 Orientation and advising
Jan. 17 Instruction begins
Feb. 15 Deadline to apply for May 2011 graduation
April 1 Deadline to apply for August 2011 graduation
May 4 Last day to submit master's theses and projects to Graduate Studies Office

May 4 Last day of instruction
May 7-11 Final examinations
May 12 Commencement
May 17 Semester ends
Holidays
Mar. 30 Cesar Chavez Birthday, holiday observed, campus closed

Mar. 26-29 Spring recess, classes not in session
SUMMER TERM 2012
Dates to be announced

Welcome! Thank you for your interest in Sonoma State University. You are probably attracted to Sonoma because of our success in academic programs, the intellectual accomplishments of our students and faculty, our exciting curricula, or perhaps the location and beauty of the campus. Whatever spurred your interest, we are delighted you've taken the time to glance through our catalog. Here you will learn how to apply, what documents are needed, and the admission requirements.

## Application Filing Periods, 2011-2012

| For admission in | Priority filing | File no later than |
| :--- | :--- | :--- |
| Fall Semester 2011 | October-November 2010 | November 30, 2010 |
| Spring Semester 2012 | August 2011 | August 30, 2011 |
| Fall Semester 2012 | October-November 2011 | November 30, 2011 |

Applications are accepted until capacities are reached. Many CSU campuses limit undergraduate admission in an enrollment category because of overall enrollment limits. If applying after the initial filing period, consult the campus admission office for current information. Similar information is conveniently available at www.csumentor.edu/filing_status/Default.asp.

## Admission Procedures and Policies

Requirements for admission to Sonoma State University are in accordance with Title 5, Chapter 1, Subchapter 3, of the California Code of Regulations. If you are not sure of these requirements, you should consult a high school or community college counselor or CSU campus admission office.

Electronic versions of the CSU undergraduate and graduate applications are accessible on the World Wide Web at www.csumentor. edu/. The CSU Mentor system allows students to browse through general information about the CSU's 23 campuses, view multimedia campus presentations, send and receive electronic responses to specific questions, and apply for admission and financial aid.

Applying online via www.csumentor.edu is expected unless electronic submission is impossible. An acknowledgement will be sent when online applications have been submitted. Application in "hard copy" form may be obtained online via www.csumentor.edu as a portable data format (PDF). Application forms (in PDF) may also be downloaded from www.calstate.edu/sas/publications.

## Importance of Filing Complete, Accurate, and Authentic Application Documents

Sonoma State University advises prospective students that they must supply complete and accurate information on the application for admission, residence questionnaire, and financial aid forms. Further, applicants must submit authentic and official transcripts of all previous academic work attempted. Failure to file complete, accurate, and authentic application documents may result in denial of admission, cancellation of academic credit, suspension, or expulsion (Section 41301, Article 1.1, Title 5, California Code of Regulations).

## Undergraduate Application Procedures

Prospective students applying for part-time or full-time undergraduate programs of study in day or evening classes must file a complete undergraduate application. The $\$ 55$ nonrefundable application fee should be in the form of a check or money order payable to "The California State University" or by credit card if submitting the online application, and it may not be transferred or used to apply to another term. An alternate campus and major may be indicated on the application, but applicants should list as an alternate campus only a CSU campus that also offers the major. Generally, an alternate major will be considered at the first choice campus before an application is redirected to an alternate choice campus. The applications of persons denied admission to an impacted and/or closed campus may be re-routed to another campus at no cost, but only if the applicant is CSU eligible and a written request is made to the Office of Admissions and Records.

## Impacted Programs

The CSU designates programs as impacted when more applications from CSU regularly eligible students are received in the initial filing period (October and November for fall terms, June for winter terms, August for spring terms, February for summer terms) than can be accommodated. Some programs are impacted at every campus where they are offered; others are impacted only at a few campuses. You must meet supplementary admission criteria if applying to an impacted program.

The CSU will announce during the fall filing period those campuses or programs that are impacted. Detailed information on campus and programs impaction will be available at the following websites:

- www.csumentor.edu
- www.calstate.edu/impactioninfo.shtml
- http://www.calstate.edu/sas/impaction-campus-info.shtml

Campuses will communicate their supplementary admission criteria for all impacted programs to high schools and community colleges in their service area and will disseminate this information to the public through appropriate media. This information will also be published at the CSU campus individual website and made available online at www.calstate.edu.

You must file your application for admission to an impacted program during the initial filing period. If you wish to seek admission consideration in impacted programs at more than one campus, you must file an application to each.

## Supplementary Admission Criteria

Each CSU campus with impacted programs uses supplementary admission criteria in screening applicants. Supplementary criteria may include rank ordering of freshman applicants based on the CSU eligibility index or rank-ordering of transfer applicants based on the overall transfer grade point average, completion of speci-
fied prerequisite courses, and a combination of campus-developed criteria. Applicants for freshman admission to impacted campuses or programs are required to submit scores on either the SAT or the ACT. For fall admission, you should take the test as early as possible and no later than November or December of the preceding year.
The supplementary admission criteria used by the individual CSU campuses to screen applicants appear periodically in the CSU Review.
Unlike unaccommodated applicants to locally impacted programs who may be redirected to another campus in the same major, unaccommodated applicants to systemwide impacted programs may not be redirected in the same major, but may choose an alternate major either at the first choice campus or another campus.
Sonoma State University is an increasingly popular campus and from year to year depending on the application pools and enrollment trends, petitions the California State University for impaction at a class or major level. If impaction status is granted, supplemental admissions criteria is utilized in the admissions process. Supplementary admission criteria for first-time freshmen include, but are not limited to, high school grade point averages, test scores (SAT I or ACT), high school course preparation, and/or a supplemental questionnaire or essay. For transfer applicants, supplemental admissions requirements may include, but are not limited to, transfer grade point average, grade point averages in specific courses, and course preparation. The specific criteria utilized depend on the number of applications received by each class level and major. To maximize your chance of admission, you are strongly urged to view and meet the basic requirements outlined in the CSU Admission Requirements section as just that: basic requirements. Higher grade point averages, submission of test scores, and completion of additional required course preparation increase your chances for admission. Please visit us online or call the Admissions Office for an updated list of impacted majors and criteria at www.sonoma.edu.

## Use of Social Security Number

Applicants are required to include their correct Social Security numbers in designated places on applications for admission pursuant to the authority contained in Section 41201, Title 5, California Code of Regulations, and Section 6109 of the Internal Revenue Code (26 U.S.C. 6109). The University uses the Social Security number to identify students and their records, including use to identify the student for purposes of financial aid eligibility and disbursement and the repayment of financial aid and other debts payable to the institution. Also, the Internal Revenue Service requires the University to file information returns that include the student's Social Security number and other information such as the amount paid for qualified tuition, related expenses, and interest on educational loans. This information is used by the IRS to help determine whether a student, or a person claiming a student as a dependent, may take a credit or deduction to reduce federal income taxes.

## Residence Determination

Whether you are a resident of California or a non-resident determines the fees you pay and the admissions requirements which
apply to you. Residence classifications are determined through a review of the information you provide in the residence portion of your admissions application. For a summary statement of the principal rules and exceptions regarding the residence determination, see "Determination of Residence for Non-resident Tuition Purposes."

## Graduate and Post-baccalaureate Application Procedures

All graduate and post-baccalaureate applicants (e.g., Ed.D. applicants, master's degree applicants, those seeking credentials or certificates, and where permitted, holders of baccalaureate degrees interested in taking courses for personal or professional growth) must file a complete graduate application as described in the graduate and post-baccalaureate admission materials at www.csumentor.edu. At this time, Sonoma State University is not accepting applicants seeking a second bachelor's degree. Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the $\$ 55$ nonrefundable application fee. Since applicants for postbaccalaureate programs may be limited to the choice of a single campus on each application, redirection to alternate campuses or later changes of campus choice will be minimal. To be assured of initial consideration by more than one campus, it will be necessary to submit separate applications (including fees) to each. An electronic version of the CSU graduate application is available on the World Wide Web at www.csumentor. edu/.Applications submitted by way of www.csumentor.edu are preferable.

## Reapplication for Subsequent Semesters

If you apply and are admitted to the University for a given semester, but do not register, you will forfeit your admission. Should you later wish to undertake work at the University, you must file a new application, pay a new application fee, and meet all of the current requirements for admission. Materials supporting an application for admission, such as transcripts and entrance examination scores, will be held for one year only and may be used during this time to meet the requirements for admission. After one year, these materials will be destroyed.

## Application Acknowledgment

You may expect to receive an acknowledgment from your first choice campus within two to four weeks of filing the application. The notice may also include a request that you submit additional records necessary for the campus to evaluate your qualifications. You may be assured of admission if the evaluation of your qualifications indicates that you meet CSU admission requirements, and in the case of admission impaction, campus requirements for admission to an impacted program. Unless specific approval/confirmation is received, an offer of admission is not transferable to another term or to another campus.

## Hardship Petitions

The campus has established procedures for consideration of qualified applicants who would be faced with extreme hardship if
not admitted. Petitioners should contact Admissions and Records regarding specific policies governing hardship admission.

## Undergraduate Admission Requirements

## Freshman Requirements

Generally, first-time freshman applicants will be considered for regular admission if they:

1. Have graduated from high school, have earned a Certificate of General Education Development (GED), or have passed the California High School Proficiency Examination;
2. Have a qualifiable minimum eligibility index (see section on Eligibility Index); and
3. Have completed with grades of $C$ or better each of the courses in the comprehensive pattern of the A-G college preparatory subject requirements (see "Subject Requirements").

Eligibility Index - The eligibility index is the combination of your high school grade point average and your score on either the ACT or the SAT. Your grade point average is based on grades earned in courses taken during your final three years of high school that are college preparatory "A-G" subject requirements, and bonus points for approved honors courses (excluding physical education and military science).

Up to eight semesters of honors courses taken in the last two years of high school, including up to two approved courses taken in the tenth grade, can be accepted. Each unit of $A$ in an honors course will receive a total of 5 points; B, 4 points; and $\mathrm{C}, 3$ points.

You can calculate the index by multiplying your grade point average (A-G coursework 10th and 11th grade) by 800 and adding your total SAT I scores on the Critical Reading and math portions of the test. If you took the ACT, multiply your grade point average (A-G coursework 10th and 11th grade) by 200 and add ten times the ACT composite score. If you are a California high school graduate (or a resident of California for tuition purposes), you need a minimum index of 2900 using the SAT I or 694 using the ACT; the Eligibility Index Table illustrates several combinations of required test scores and averages.

Sonoma State University continues to receive a high volume of applicants and is an impacted campus within the California State University, Sonoma State University requires a higher eligibility index than the minimum index and/or supplemental criteria from out of service area applicants. The local service area for SSU is comprised of 6 counties: Sonoma, Napa, Lake, Marin, Mendocino, and Solano.

For admission to terms during the 2011-2012 college years, the University has no plans to include the writing scores from either of the admissions tests (SAT or ACT) in the computation of the CSU Eligibility Index.

| Eligibility Index Table for California High School Graduates or Residents of California |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GPA | ACT Score SAT I Score <br> 3.00 and above qualifies with any score |  | GPA | ACT Score | SAT I Score | GPA ACT Score SAT I Score |  |  | GPA | ACT Score | SAT I Score | GPA | ACT Score | SAT I Score |
|  |  |  | 2.81 | 14 | 660 | 2.60 | 18 | 820 | 2.39 | 22 | 990 | 2.18 | 26 | 1160 |
|  |  |  | 2.80 | 14 | 660 | 2.59 | 18 | 830 | 2.38 | 22 | 1000 | 2.17 | 26 | 1170 |
|  |  |  | 2.79 | 14 | 670 | 2.58 | 18 | 840 | 2.37 | 22 | 1010 | 2.16 | 27 | 1180 |
| 2.99 | 10 | 510 | 2.78 | 14 | 680 | 2.57 | 18 | 850 | 2.36 | 23 | 1020 | 2.15 | 27 | 1180 |
| 2.98 | 10 | 520 | 2.77 | 14 | 690 | 2.56 | 19 | 860 | 2.35 | 23 | 1020 | 2.14 | 27 | 1190 |
| 2.97 | 10 | 530 | 2.76 | 15 | 700 | 2.55 | 19 | 860 | 2.34 | 23 | 1030 | 2.13 | 27 | 1200 |
| 2.96 | 11 | 540 | 2.75 | 15 | 700 | 2.54 | 19 | 870 | 2.33 | 23 | 1040 | 2.12 | 27 | 1210 |
| 2.95 | 11 | 540 | 2.74 | 15 | 710 | 2.53 | 19 | 880 | 2.32 | 23 | 1050 | 2.11 | 28 | 1220 |
| 2.94 | 11 | 550 | 2.73 | 15 | 720 | 2.52 | 19 | 890 | 2.3 | 24 | 1060 | 2.10 | 28 | 1220 |
| 2.93 | 11 | 560 | 2.72 | 15 | 730 | 2.51 | 20 | 900 | 2.30 | 24 | 1060 | 2.09 | 28 | 1230 |
| 2.92 | 11 | 570 | 2.71 | 16 | 740 | 2.50 | 20 | 900 | 2.29 | 24 | 1070 | 2.08 | 28 | 1240 |
| 2.91 | 12 | 580 | 2.70 | 16 | 740 | 2.49 | 20 | 910 | 2.28 | 24 | 1080 | 2.07 | 28 | 1250 |
| 2.90 | 12 | 580 | 2.69 | 16 | 750 | 2.48 | 20 | 920 | 2.27 | 24 | 1090 | 2.06 | 29 | 1260 |
| 2.89 | 12 | 590 | 2.68 | 16 | 760 | 2.47 | 20 | 930 | 2.26 | 25 | 1100 | 2.05 | 29 | 1260 |
| 2.88 | 12 | 600 | 2.67 | 16 | 770 | 2.46 | 21 | 940 | 2.25 | 25 | 1100 | 2.04 | 29 | 1270 |
| 2.87 | 12 | 610 | 2.66 | 17 | 780 | 2.45 | 21 | 940 | 2.2 | 25 | 1110 | 2.03 | 29 | 1280 |
| 2.86 | 13 | 620 | 2.65 | 17 | 780 | 2.44 | 21 | 950 | 2.23 | 25 | 1120 | 2.02 | 29 | 1290 |
| 2.85 | 13 | 620 | 2.64 | 17 | 790 | 2.43 | 21 | 960 | 2.22 | 25 | 1130 | 2.01 | 30 | 1300 |
| 2.84 | 13 | 630 | 2.63 | 17 | 800 | 2.42 | 21 | 970 | 2.2 | 26 | 1140 | 2.00 | 30 | 1300 |
| 2.83 | 13 | 640 | 2.62 | 17 | 810 | 2.41 | 22 | 980 | 2.20 | 26 | 1140 | Below | 2.00 does not | ot qualify |
| 2.82 | 13 | 650 | 2.61 | 18 | 820 | 2.40 | 22 | 980 | 2.19 | 26 | 1150 |  | regular admi | ission |

The CSU uses only the ACT score or the SAT mathematics and critical reading scores in its admission eligibility equation. The SAT or ACT writing scores are not currently used by CSU campuses.

SSU requires the submission of test scores regardless of grade point average. All applicants for admission are urged to take the SAT or ACT and to provide the scores of such tests to Sonoma State University no later than December of the preceding year, if applying for fall admission.
If you neither graduated from a California high school nor are a resident of California for tuition purposes, you need a minimum index of 3502 (SAT I) or 842 (ACT). Graduates of secondary schools in foreign countries must be judged to have academic preparation and abilities equivalent to applicants eligible under this section.
You will qualify for regular admission when the University verifies that you have graduated from high school, have a qualifiable eligibility index, have completed the comprehensive pattern of college preparatory "a-g" subjects, submit the required tests, and, if applying to an impacted program or class, have met all supplementary admission criteria.

## Provisional Admission of First-Time Freshman Applicants

Sonoma State University may provisionally admit first-time freshman applicants based on their academic preparation through the junior year of high school and that planned for the senior year. The campus will monitor the final two years of study to ensure that those so admitted complete their secondary school studies satisfactorily, including the required college preparatory subjects, and graduate from high school. Students are required to submit an official transcript after graduation to certify that all coursework has been satisfactorily completed. A campus may rescind admission decisions for students who are found to be ineligible after the final transcript has been evaluated.
In no case may documentation of high school be received any later than the census date for a student's first term of CSU enrollment. A campus may rescind admission decisions, cancel financial aid awards, and cancel any university registration for students who are found to be ineligible after the final transcript has been evaluated.
You will qualify for regular (non-provisional) admission when the University verifies that you have graduated and received a diploma from high school, have a qualifiable minimum eligibility index, have completed the comprehensive pattern of college preparatory "a-g" subjects, and, if applying to an impacted program or campus, have met all supplementary criteria.

## Subject Requirements

The California State University requires that first-time freshman applicants complete, with grades of C or better, a comprehensive pattern of college preparatory study totaling 15 units. A "unit" is one year of study in high school.

- 2 years of social science, including 1 year of U.S. history, or U.S. history and government;
- 4 years of college preparatory English;
- 3 years of math (algebra, geometry, and intermediate algebra);
- 2 years of laboratory science (1 year biological and 1 year physical, both with labs);
- 2 years in the same foreign language (subject to waiver for applicants demonstrating equivalent competence);
- 1 year of visual and performing arts (art, dance, drama/ theater, or music, in the same area of study); and
- 1 year of electives: selected from English, advanced mathematics, social science, history, laboratory science, foreign language, and visual and performing arts.


## High School Students

High school students may be considered for enrollment in certain special programs if recommended by the principal and the appropriate campus department chair and if preparation is equivalent to that required of eligible California high school graduates. Such admission is only for a given program and does not constitute the right to continued enrollment.

## Transfer Policies of CSU Campuses

Authority for decisions regarding the transfer of undergraduate credits is delegated to each California State University (CSU) campus. Most commonly, college level credits earned from an institution of higher education accredited by a regional accrediting agency recognized by the United States Department of Education is accepted for transfer to campuses of the CSU.
The CSU General Education-Breadth (GE-Breadth) program allows California community college transfer students to fulfill lowerdivision general education requirements for any CSU campus prior to transfer. Up to 39 of the 48 GE -Breadth units required can be transferred from and certified by a California college. "Certification" is the official notification from a California community college that a transfer student has completed courses fulfilling lower-division general education requirements. The CSU GE-Breadth certification course list for particular community colleges can be accessed at www.assist.org.
Campuses may enter into articulation agreements on either a course for course or program to program basis. Such articulations are common between CSU campuses and any or all of the California community colleges, but may exist between CSU campuses and other institutions. Established CSU/CCC articulations may be found on www.assist.org.
No more than 70 semester units may be transferred to a CSU campus from an institution which does not offer bachelor's degrees or their equivalents, e.g., community colleges. Given the university's 30-unit residency requirement, no more than 90 total units may be transferred into the university from all sources.

## Transfer Requirements

Students who have completed fewer than 60 transferable semester college units (fewer than 90 quarter units) are considered lowerdivision transfer students. Student who have completed 60 or more transferable semester college units ( 90 or more quarter units) are considered upper-division transfer students. Students who complete college units during high school or through the summer immediately following high school graduation are considered first-time freshmen
and must meet those admission requirements. Transferable courses are those designated for baccalaureate credit by the college or university offering the courses.

## Lower-Division Transfer Admission Requirements

Visit the SSU Admissions website to find out if Sonoma State is taking applications from lower-division transfer students: www.sonoma.edu/ar/.

Generally, applicants will qualify for admission as a lower-division transfer student if they have fewer than 60 semester or 90 quarter units and a grade point average of at least 2.0 ( C or better) in all transferable units attempted, are in good standing at the last college or university attended, and meet any of the following standards:

1. Will meet the freshman admission requirements (grade point average and subject requirements) in effect for the term to which they are applying (see "Freshman Requirements" section); or
2. Were eligible as a freshman at the time of high school graduation except for the subject requirements, and have been in continuous attendance in an accredited college since high school graduation, and have made up the missing subjects.

Sonoma State also requires lower division transfer students to have completed all remediation courses in English and Mathematics.

Applicants who graduated from high school prior to 1988 should contact the Admissions Office to inquire about alternative admission programs.

Due to enrollment constraints Sonoma State presently is not admitting lower division transfer students. Please visit our website to find out if Sonoma State is taking applications from lower division transfer students: www.sonoma.edu/ar/.

## Making Up Missing College Preparatory Subject Requirements

Lower division applicants who did not complete subject requirements while in high school may make up missing subjects in any of the following ways:

1. Complete appropriate courses with a C or better in adult school or high school summer sessions;
2. Complete appropriate college courses with a C or better. One college course of at least three semester or four quarter units will be considered equivalent to one year of high school study; or
3. Earn acceptable scores on specified examinations, e.g., SAT subject tests..

Please consult with any CSU Admissions Office for further information about alternative ways to satisfy the subject requirements.

## Upper-Division Transfer Requirements

Generally, applicants will qualify for admission as an upper-division transfer student if:

1. They have a grade point average of at least 2.0 ( $C$ or better) in all transferable units attempted; and
2. They are in good standing at the last college or university attended; and they have completed at least 60 semester units of college coursework with a grade of C or better in each course to be selected from courses in English, arts and humanities, social science, science, and mathematics at a level at least equivalent to courses that meet general education requirements. The 60 units must include at least 30 units of courses, which meet CSU general education requirement including all of the general education requirements in communication in the English language (both oral and written) and critical thinking and the requirement in mathematics/ quantitative reasoning (usually 3 semester units) $\mathbf{O R}$ the Intersegmental General Education Transfer Curriculum (IGETC) requirements in English communication and mathematical concepts and quantitative reasoning.
Due to enrollment constraints, priority is given to "local service area" applicants.

## Provisional Admission of Transfer Applicants

Sonoma State University may provisionally admit transfer applicants based on their academic preparation and courses planned for completion. The campus will monitor the final terms to ensure that those admitted complete all required courses satisfactorily. All accepted applicants are required to submit an official transcript of all college level work completed. Campuses will rescind admission for all students who are found not to be eligible after the final transcript has been evaluated. In no case may such documents be received and validated by the University any later than a student's registration for their second term of CSU enrollment.

## Test Requirements

Freshman and transfer applicants who have fewer that 60 semester (90 quarter) units of transferable college credit are strongly encouraged to submit scores, unless exempt (see "Eligibility Index") from either the ACT or the SAT I of the College Board. If you are applying to an impacted program on campus and are required to submit test scores, you should take the test no later than November or December. Test scores also are used for advising and placement purposes. Registration forms and dates for the SAT I or ACT are available from school or college counselors or from a CSU campus testing office. Or students may write to or call:

The College Board (SAT I)
Registration Unit, Box 6200
Princeton, New Jersey
08541-6200
(609) 771-7588
www.collegeboard.org
ACT Registration Unit
P.O. Box 414

Iowa City, lowa
52240
(319) 337-1270
www.act.org

## English Language Requirement

All undergraduate applicants whose native language is not English and who have not attended schools at the secondary level or above for at least three years full time where English is the principal language of instruction must present a score of [campus minimum score] or above on the Test of English as a Foreign Language (TOEFL). Some majors may require a score higher than [campus minimum]. Applicants taking the Computer Based Test of English as a Foreign Language must present a score of [campus minimum] or above. Some majors and some campuses may require a higher score. A few campuses may also use alternative methods of assessing English fluency: Pearson Test of English Academic (PTE Academic), the International English Language Testing System (IELTS), and the International Test of English Proficiency (TEP). Each campus will posts the tests it accepts on its website and will notify students after they apply about the tests it accepts and when to submit scores.

CSU minimum TOEFL standards are:

|  | Internet | Computer | Paper |
| :--- | :--- | :--- | :--- |
| Undergraduate | 61 | 173 | 500 |
| Graduate | 80 | 213 | 550 |

## Systemwide Placement Test Requirements

The California State University requires each entering undergraduate, except those who qualify for an exemption, to take the CSU Entry Level Mathematics (ELM) examination and the CSU English Placement Test (EPT) prior to enrollment. These placement tests are not a condition for admission to the CSU, but they are a condition of enrollment. These examinations are designed to identify entering students who may need additional support in acquiring basic English and mathematics skills necessary to succeed in CSU baccalaureate-level courses. Undergraduate students who do not demonstrate college-level skills both in English and in mathematics will be placed in appropriate remedial programs and activities during the first term of their enrollment. Students placed in remedial programs in either English or mathematics must complete all remediation in their first year of enrollment. Failure to complete remediation by the end of the first year may result in denial of enrollment for future terms.
Students register for the EPT and/or ELM at their local CSU campus. Questions about test dates and registration materials may be addressed to Testing Services, (707) 664-2947, Ruben Salazar Hall 1070.

## English Placement Test (EPT)

The English Placement Test (EPT) is designed to assess the level of reading and writing skills of students entering the California State University. The CSU EPT must be completed by all non-exempt entering undergraduates prior to enrollment in any course, including remedial courses. Students who score 147 or above on the EPT will be placed in college-level composition classes.
Exemptions from the EPT are granted only to those who present proof of one of the following:

- A score of 500 or above on the critical reading section of the College Board SAT Reasoning Test;
- A score of 22 or above on the American College Testing (ACT) English Test;
- A score of 3 or above on either the Language and Composition or Composition and Literature examination of the College Board Scholastic Advanced Placement Program;
- Completion and transfer to CSU of the credits for a college course that satisfies the CSU General Education requirement in English Composition, provided such a course was completed with a grade of C or better; or
- A score of "Exempt" or "Ready for college-level English courses" on the CSU Early Assessment Program (EAP) taken along with the English Language Arts California Standard Test in grade 11.


## Entry Level Mathematics (ELM) Examination

The Entry Level Mathematics (ELM) Examination is designed to assess and measure the level of mathematics skills acquired through three years of rigorous college preparatory mathematics coursework (Algebra I and II, and Geometry) of students entering the California State University (CSU). The CSU ELM must be completed by all non-exempt entering undergraduates prior to enrollment in any course, including remedial courses. Students who score 50 or above on the ELM will be placed in college-level mathematics classes.
Exemptions from the ELM are granted only to those who present proof of one of the following:

- A score of 550 or above on the mathematics section of the College Board SAT Reasoning Test;
- A score of 550 or above on a College Board SAT Subject Test in Mathematics (level 1 or level 2);
- A score of 23 or above on the American College Testing (ACT) Mathematics Test;
- A score of 3 or above on the College Board Advanced Placement Calculus AB or Calculus BC exam;
- A score of 3 or above on the College Board Advanced Placement Statistics examination;
- Completion and transfer to CSU of a college course that satisfies the requirement in Quantitative Reasoning, provided such a course was completed with a grade of C or better;
- A score of "Exempt" or "Ready for college-level Mathematics courses" on the CSU Early Assessment Program (EAP), taken in grade 11 in conjunction with the CST in Summative High School Mathematics or Algebra II; or
- A score of "Conditionally ready for college-level Mathematics courses" or "Conditional" on the CSU Early Assessment Program (EAP) taken in grade 11 along with the California Standards Test in Summative High School Mathematics or Algebra II, provided successful completion of a CSU-approved 12th grade math course that require Algebra II as a prerequisite.


## Nonbaccalaureate Courses in English and Math (courses with numbers lower than 100)

The University offers courses in English and mathematics for students who need to improve their proficiency in these areas. These classes carry units of credit that apply to students' unit load for a given semester but do not apply toward graduation.

CSU system wide and SSU policy require that all entering students needing remediation take and complete all remedial courses within their first year of enrollment. Failure to do so results in administrative academic disqualification from the University.

Enrollment in nonbaccalaureate classes, as appropriate, is thus required during the first semester of enrollment. Students who fail any of these courses must repeat them in the next semester of enrollment. Failure to pass after the second attempt will result in administrative academic disqualification. Students who pass these courses must take the next appropriate course in their next semester of enrollment.
Students who fail to complete remediation within the first year of enrollment will be placed on administrative academic disqualification and will be required to complete remediation at a community college or other university before they will be allowed to return to SSU.

## Graduation Requirement in Writing Proficiency

All students must demonstrate competency in writing skills as a requirement for graduation. Information on currently available ways to meet this graduation requirement may be obtained from the SSU Writing Center, (707) 664-2058, or at Sonoma State University on the Web at www.sonoma.edu/programs/writingcenter/. See also the section under Degree Requirements titled "Completion of the Written English Proficiency Requirement."

## Graduate and Post-baccalaureate Admission Requirements

## Admission Requirements

Graduate and post-baccalaureate applicants may apply for a degree objective, a credential or certificate objective, or where approved, may have no program objective. Depending on the objective, the CSU will consider an application for admission as follows:

- General Requirements - The minimum requirements for admission to graduate and post baccalaureate studies at a California State University campus are in accordance with university regulations as well as Title 5, Chapter 1, Subchapter 3 of the California Code of Regulations.
- Specifically, a student shall at the time of enrollment: (1) have completed a four-year college course of study and hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association, or shall have completed equivalent academic preparation as determined by appropriate campus authorities; (2) be in good academic standing at the last college or university attended; (3) have earned a grade point average of at least 2.5 on the last
degree completed by the candidate or have attained a grade point average of at least $2.5(A=4.0)$ in the last 60 semester (90 quarter) units attempted; and (4) satisfactorily meet the professional, personal, scholastic, and other standards for graduate study, including qualifying examinations, as appropriate campus authorities may prescribe. In unusual circumstances, a campus may make exceptions to these criteria.
- Students who meet the minimum requirements for graduate and post-baccalaureate studies may be considered for admission in one of the four following categories:
- Graduate Classified - To pursue a graduate degree, applicants are required to fulfill all of the professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus; or
- Graduate Conditionally Classified - Applicants may be admitted to a graduate degree program in this category if, in the opinion of appropriate campus authority, deficiencies may be remedied by additional preparation; or
- Post-baccalaureate Classified, e.g. admission to an education credential program - Persons wishing to enroll in a credential or certificate program, will be required to satisfy additional professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus; or
- Post-baccalaureate Unclassified - To enroll in undergraduate courses as preparation for advanced degree programs or to enroll in graduate courses for professional or personal growth, applicants must be admitted as postbaccalaureate unclassified students. By meeting the general requirements, applicants are eligible for admission as post-baccalaureate unclassified students. Admission in this status does not constitute admission to, or assurance of consideration for admission to, any graduate degree or credential program (Most CSU campuses do not offer admission to unclassified post-baccalaureate students).

These and other CSU admissions requirements are subject to change as policies are revised and laws are amended. The CSU website www.calstate.edu and the CSU admissions portal www.csumentor.edu are good sources of the most up-to-date information.

## Graduate, Post-baccalaureate English Language Requirement

All graduate and post-baccalaureate applicants, regardless of citizenship, whose native language is not English and whose preparatory education was principally in a language other than English must demonstrate competence in English. Those who do not possess a bachelor's degree from a postsecondary institution where English is the principal language of instruction must receive a minimum score of 213 or higher on the computerized Test of English as a Foreign Language, ( 550 on the paper form or 79 on the Internet form). Some
programs may require a higher score. Several CSU campuses may use alternative methods for assessing fluency in English including Pearson Test of English Academic (PTE Academic), the International English Language Testing System (IELTS), and the International Test of English Proficiency (ITEP).

## Returning Students

If you were previously enrolled as a post baccalaureate student at Sonoma State University, but have not registered for two or more semesters, you must file an application for readmission online at www.csumentor.edu and submit the application to Sonoma State University. If you missed only one semester, you need not reapply. If coursework was attempted at another college or university, one official transcript reflecting this work must be filed with the Office of Admissions and Records. Previously enrolled students who are reapplying are subject to the same application dates and fees as new applicants. If you attended Sonoma State as a visitor, concurrent enrollee, or exchange student, and you wish to continue your enrollment at Sonoma, you must file a new application for admission at www.csumentor.edu and submit the application to Sonoma State University.

## Information for International Students

Students now entering or enrolled in higher education will be the leaders of industry, commerce, government, education, and the arts in the 21st Century. The global marketplace, affordable air travel, extraordinary levels of human migration, and the rise of transnational communications systems dictate that the valuable university graduates will be those who are prepared to live and work in an international setting in a rapidly changing world.
International students bring to our campus and to its surrounding communities new perspectives and invaluable experiences to share with California students. At the same time, they take home with them, at the end of their studies, a deep understanding of America and its people. Sonoma State University has welcomed students from more than 50 countries, representing virtually every continent and island area in the world. These students come here to experience a traditional American liberal arts education, but in an untraditional academic setting, where teachers are guides to learning. They want to live in a beautiful and safe environment, and they also want a challenging, intellectually stimulating academic program taught by a distinguished faculty.

## International (Foreign) Student Admission Requirements

The CSU must assess the academic preparation of foreign students. For this purpose, "foreign students" include those who hold US visas as students, exchange visitors, or in other nonimmigrant classifications.

Priority in admission is given to residents of California. There is little likelihood of nonresident applicants, including international students, being admitted either to impacted majors or to those majors or programs with limited openings.

The CSU uses separate requirements and application filing dates in the admission of foreign students. Verification of English proficiency (see the section on the English Language Requirement for undergraduate applicants), financial resources, and academic performance are all important considerations for admission. Academic records from foreign institutions must be on file by the close of the application period for the semester for which entry is desired and, if not in English, must be accompanied by certified English translations.
Sonoma State University welcomes applications from qualified international students. The application and admissions process for international students is distinct from the process for domestic students. Please read the following information carefully.
Sonoma State University International Student Application forms and University information are available on the Internet at www. sonoma.edu/sas/is The application for university admission can be found at www.csumentor.edu A printable application is available upon request.

If you are unable to access this information, please contact us:

- By e-mail at international.inquiry@sonoma.edu;

OR

- By mail at:

Sonoma State University
International Admissions
Salazar Hall 1010A
1801 East Cotati Avenue
Rohnert Park, California 94928
United States of America
SSU admits international students twice a year for entry into either the fall or spring semesters. Application periods are as follows:

## For fall semester entry

October 1 through May 31

## For spring semester entry

August 1 through October 30

## Academic Qualification

Undergraduate applicants must provide evidence of graduation from an appropriate secondary educational institution or successful study at a recognized institution of higher education with a minimum cumulative grade point average of at least 2.50 on a 4.00 scale or the equivalent. Admissions to some fields of study may be competitive.
Graduate applicants must meet the standards applicable to the University and to each SSU graduate program as indicated elsewhere in this catalog.

## Housing

International students who file complete applications (including transcripts and financial affidavits) prior to the end dates of the respective application periods should be able to obtain on-campus housing.

## International Services and Activities at SSU

International Services provides essential support for international students to ensure that they make a quick and successful adaptation to university studies and to the student community at SSU. International Services provides administrative support, cultural adjustment support, academic advising, personal counseling, and assistance with all issues relating to university life. In addition, International Services is the home base for the SSU International Education Exchange Council (IEEC), one of the largest and most active student clubs on the campus, which offers on-campus and off-campus activities, trips, and community volunteer programs.

## International Student Fees and Expenses (Academic Year)

Sonoma State University offers international students an outstanding education at a very attractive price; however, it does not, in general, offer them financial assistance. For this reason, applicants must describe their plans for financing their studies in some detail. Instructions on financial certifications are in the application packet. Part-time employment on campus is permitted, but work opportunities are very limited. Having a good financial plan is, therefore, extremely important. Fees and tuition amounts are subject to change.
Budget estimate of average annual cost for an academic year*

|  | Undergraduate (12 units) | Graduate (8 units) |
| :--- | :---: | :---: |
| Registration Fees* | $\$ 5290$ | $\$ 6226^{* * *}$ |
| Non-Resident Tuition <br> (\$372 per unit) |  |  |
| Food and Housing | $\$ 8928$ | $\$ 5952$ |
| Books and Materials | $\$ 170400$ | $\$ 10400$ |
| SSU Health Insurance | $\$ 919$ | $\$ 1732$ |
| Personal Expenses | $\$ 3500$ | $\$ 919$ |
| TOTAL: | $\$ 30700$ | $\$ 3500$ |
|  | $\$ 28660$ |  |

* All fees are subject to change by the California Legislature
*** For M.B.A. only - $\$ 210$ per unit professional fee (additional \$3360 per year)


## Other Applicants

## Educational Opportunity Program (EOP)

To be eligible for EOP admission, you must be an undergraduate and a California resident.*

EOP provides assistance for students who are first generation, historically low-income students. Students who are lacking the subject requirements, grades, or test scores normally required for college attendance, may be admitted through EOP if they have demonstrated the potential for academic success.
Students who are academically eligible for regular admission to the University may also apply to EOP.

To apply for admission through EOP, you must submit an EOP application, Forms 1 and 2, apply/submit the online CSU application found at www.csumentor.edu, and check "yes" to question number 37 on the CSU application. In addition, all EOP applicants must file the Free Application for Federal Student Aid (FAFSA).

For additional information about the Educational Opportunity

Program, please contact our EOP Office at (707) 664-2427 or visit their website at www.sonoma.edu/sas/eop/.
*AB540 applicants are not eligible for EOP.

## Veterans

If you are a veteran of the United States military service and a California resident, you may possibly be granted admission even if you do not meet the University's regular admissions requirements. If you wish to request consideration under this provision, follow regular application procedures, and send a letter of appeal to the Office of Admissions.

## Applicants Not Regularly Eligible

Applicants not admissible under one of the above provisions may enroll in extension courses, at a community college, or at another appropriate institution to meet eligibility requirements. Denied applicants may choose to petition for special admission consideration. Only under the most unusual circumstances and only by special action will such applicants be admitted to Sonoma State University.

## Adult Students

As an alternative to regular admission criteria, an applicant who is 25 years of age or older may be considered for admission as an adult student if he or she meets all of the following conditions:

1. Possesses a high school diploma (or has established equivalence through either the Tests of General Educational Development or the California High School Proficiency Examination);
2. Has not been enrolled in college as a full-time student for more than one term during the past five years; and
3. If there has been any college attendance in the last five years, has earned a C average or better in all college work attempted.

Consideration will be based upon a judgment as to whether the applicant is as likely to succeed as a regularly admitted freshman or transfer student and will include an assessment of basic skills in the English language and mathematical computation.

You must send a formal letter of appeal and all transcripts from high school and colleges. An admissions committee will review each appeal for adult admission. Admission is determined on a case-bycase basis. Recent course work in math and English to demonstrate college-level proficiency is essential for admission.

## Intrasystem and Intersystem Enrollment Programs

Students enrolled at any CSU campus will have access to courses at other CSU campuses on a space available basis unless those campuses or programs are impacted. This access is offered without students being required to be admitted formally to the host campus and sometimes without paying additional fees. Although courses taken on any CSU campus will transfer to the student's home CSU campus as at least elective credits, students should consult their home campus academic advisors to determine how such courses may apply to their degree programs before enrolling at the host campus.

There are two programs for enrollment within the CSU and one for enrollment between CSU and the University of California or California Community Colleges. Additional information about these programs is available from the Office of Admissions and Records, (707) 664-2778, Ruben Salazar Hall 2030, and in the "Regulations and Policies" section of this catalog.
CSU Concurrent Enrollment - Matriculated students in good standing may enroll on a space available basis at both their home CSU campus and a host CSU campus during the same term. Credit earned at the host campus is automatically reported to the home campus to be included on the student's transcript at the home campus.
CSU Visitor Enrollment - Matriculated students in good standing enrolled at one CSU campus may enroll on a space available basis at another CSU campus for one term. Credit earned at the host campus is reported automatically to the home campus to be included on the student's transcript at the home campus.
Intersystem Cross Enrollment - Matriculated CSU, UC, or community college students may enroll on a space available basis for one course per term at another CSU, UC, or community college and request that a transcript of record be sent to the home campus.

## CSU Immunization Requirements - Must be Satisfied Prior to Enrollment

Entering CSU students are required to present proof of the following immunizations to the Office of Admissions and Records well in advance of the start of their first semester of classes here.
Measles and Rubella (MMR): All new and readmitted students must provide proof of full immunizations against measles and rubella prior to enrollment.
Hepatitis B: All new students who will be 18 years of age or younger at the start of their first term at a CSU campus must provide proof of full immunization against Hepatitis $B$ before enrolling. Full immunization against Hepatitis B consists of three timed doses of vaccine over a minimum 4 to 6 months period. If you need further details or have special circumstances, please consult the Sonoma State Student Health Center. Each incoming freshman who will be residing in on-campus housing will be required to return a form indicating that they have received information about meningococcal disease and the availability of the vaccine to prevent contracting the disease and indicating whether or not the student has chosen to receive the vaccination. These are not admission requirements, but are required of students as conditions of enrollment in CSU.
The SSU Student Health Center can provide MMR and Hepatitis B immunizations or blood tests to confirm immunity at reduced cost to entering students who have been accepted and paid their Enrollment Reservation Deposit to SSU, or students may submit records from off-campus healthcare providers. Go to http://www.sonoma. edu/SHC/immuniz.html for detailed information about immunization requirements and how to satisfy them.

Send Immunization Records or Copies of Blood Tests Documenting Immunity to:

Sonoma State University<br>Office of Admissions and Records<br>ATTN: Immunization Requirements<br>1801 E. Cotati Avenue<br>Rohnert Park, CA, 94928

Meningococcal Disease is a rare but potentially fatal infection that occurs more frequently in college students than in the general population, especially in undergraduates living in residence halls or other close living circumstances. Meningococcal vaccine can lower the risk of becoming infected with this organism and is highly recommended. Although proof of having received this vaccine is not required to attend SSU, California law requires that college students who will be living in campus residence halls receive information about meningococcal disease and the availability of protective vaccine, and return a signed meningitis information form to the residence halls confirming that they have received and read this information.

## Reservation

The University reserves the right to select its students and to deny admission to the University or to any of its programs as the University, in its sole discretion, determines appropriate, based on an applicant's suitability and on the best interests of the University.

## General Information About Admission and Evaluation of Academic Records

## Advanced Placement

Sonoma State University grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement Program of the College Board. Students who present scores of three or better will be granted up to six semester units (nine quarter units) of college credit.

## Credit by Examination

Students may challenge courses by taking examinations developed at Sonoma State University. Credit shall be awarded to those who pass them successfully.

## Credit by Challenge Examinations

You may earn unit credit for an SSU course that you successfully challenge by examination. The University, in the interest of accelerating the academic progress of capable students with special interests and experience, encourages the earning of such credit. The following regulations govern the challenging of courses:

1. Students may challenge only those courses that are listed in the SSU catalog and for which the challenger has not otherwise received credit. A course may be challenged only during the semester in which it is regularly offered;
2. Only students in resident study may challenge a course;
3. Examinations are set and administered by the instructor of the course challenged or by a faculty designee of the appropriate department chair. Completed examinations are filed in the department offices;
4. Application for Unit Credit by Challenge Examination must be approved by the appropriate department chair;
5. For summer sessions only, challenge examinations must be taken within the first two weeks of the Six Week Summer Session; and
6. When students pass the examination for credit, a CR will be recorded on their permanent record but will not be posted to students' records until 30 units have been earned in residence. No resident credit is earned, and units graded CR do not affect the grade point average. Forms for Application for Unit Credit by Challenge Examination are available in department offices.

## Credit for Noncollegiate Instruction

Sonoma State University grants undergraduate degree credit for successful completion of noncollegiate instruction, either military or civilian, appropriate to the baccalaureate degree, that has been recommended by the Commission on Educational Credit and Credentials of the American Council on Education. The number of units allowed are those recommended in the Guide to the Evaluation of Educational Experience in the Armed Services and the National Guide to Educational Credit for Training Programs.

## Faculty Evaluated Prior Learning (FEPL) Program

Rachel Carson Hall 38, (707) 664-2273

## Coordinator

Barbara Lesch McCaffry
Sonoma State University grants up to 30 units of undergraduate credit for learning, knowledge, or skills-based experience that has been documented and evaluated according to campus policy. Students should be aware, however, that policies for earning credit for prior learning vary from campus to campus in the CSU.
Sonoma State University subscribes to the principles recognized by the California State University and by the Western Association of Schools and Colleges and offers its Faculty-Evaluated Prior Learning (FEPL) Program in order to serve highly motivated students with substantial prior learning experience. For the student who decides to apply for FEPL, the Portfolio Workshop (UNIV 310), offered through the School of Extended Education, is the gateway into the program. It is a three-unit upper division interdisciplinary course which is open both to registered SSU students and also to non-SSU students considering completing their undergraduate degrees at SSU. Both the course, and subsequent stages of the actual assessment, will be educational in themselves. The portfolio submitted for review prior to granting University credits will, in addition, be useful in future educational and career planning.

In defining creditable prior learning, it is perhaps easier to begin with what it is not. It is not giving credit for living. Everyone has lived and has had experience, but not everyone's life and experience produce learning equivalent to portions of a prescribed college curriculum. The credit is not awarded for raw experience, but rather for significant learning experiences that result in a blend of practical and theoretical understanding applicable to other situations. The learning must be demonstrable and demonstrated, according to the policies and procedures outlined below (and in more detail in the brochure available from the FEPL coordinator).

## FEPL Policies and Procedures

To apply for FEPL by submitting documentation for evaluation the student must:

1. Have successfully completed the Portfolio Workshop (UNIV 310), offered through the School of Extended Education, although this course can be taken prior to applying or to being admitted to SSU;
2. Have applied and been admitted to an undergraduate degree program in Sonoma State University (FEPL credit is not available at the graduate level). The Portfolio Workshop (UNIV 310) can be taken prior to applying or being admitted to SSU;
3. Be enrolled in coursework at SSU in the semester in which the actual evaluation of prior learning takes place;
4. Be applying for college-level credit in areas where Sonoma State University has degree programs and faculty expertise;
5. Be applying for credit applicable to an approved degree program; and
6. Follow the established program procedures.

## Orientation and Advising

This step is accomplished by enrolling in UNIV 310: Portfolio Workshop. In this seminar, the seminar instructor will help the student assess the appropriateness of the prior learning experience as a basis for attempting to earn credit through the College Level Examination Program (CLEP), challenge exams, or Faculty Evaluation of Prior Learning. As a part of the seminar, the student will begin to develop a portfolio that is used as a source of information in the evaluation program.

## Payment of User Fee

If the student, the seminar instructor, and the FEPL coordinator agree that the portfolio warrants formal application for award of credit, the next step is payment of a one-time non-refundable fee, based partly upon the complexity of the portfolio (please see FEPL brochure for details). The fee is assessed to cover the cost of faculty evaluation of the portfolio and does not guarantee the award of credit.

## Faculty Evaluation

The FEPL coordinator forwards the completed portfolio to appropriate faculty evaluators who consider whether the learning demonstrated in the portfolio meets the criteria for college-level learning in their disciplines, whether it is upper- or lower-division level, and whether it is appropriate for credit in general education (GE), electives, or the major. Recommendations for award of credit for GE are reviewed according to standard university procedures. The evaluators also recommend the exact titling of the credit to be awarded and the number of units to be awarded in each category. The evaluators' recommendations and the portfolio are then returned to the FEPL coordinator. The time line for this process is one semester.

## Posting of FEPL Credit

The final recommendations, including units to be awarded and specific descriptive titles, are forwarded by the FEPL coordinator to Admissions and Records for transcription. Units earned through FEPL are graded CR/NC and are clearly identified on the transcript as based on Faculty Evaluation of Prior Learning.

Transfer of FEPL units, even after official transcription, is up to the recipient institution and cannot be guaranteed by Sonoma State University. However, the FEPL coordinator will, at the request of any institution or agency, furnish full documentation showing how such learning was evaluated and the basis upon which units were awarded.

## Limitation on Units Possible Through FEPL

In accordance with WASC guidelines and University policy, no more than 30 baccalaureate units may be earned through FEPL.

## Determination of Residence for Nonresident Tuition Purposes

University requirements for establishing residency are independent from those of other types of residency, such as for tax purposes, or other state or institutional residency. A resident for tuition purposes is someone who meets the requirements set forth in the Uniform Student Residence Requirements. These laws governing residence for tuition purposes at the California State University are California Education Code sections 68000-68090, 68120-68134, and 8970589707.5, and California Code of Regulations, Title 5, Subchapter 5, Article 4, sections 41900-41916. This material can be viewed on the Internet by accessing the California State University's website at www.calstate.edu/GC/resources.shtml. These regulations were promulgated not to determine whether a student is a resident or nonresident of California, but rather to determine whether a student should pay University fees on an in-state or out-of-state basis.
Each campus's Admissions Office is responsible for determining the residence status of all new and returning students based on the Application for Admission, Residency Questionnaire, Reclassification Request Form, and, as necessary, other evidence furnished by the student. A student who fails to submit adequate information to establish eligibility for resident classification will be classified as a nonresident.

Generally, establishing California residence for tuition purposes requires a combination of physical presence and intent to remain indefinitely. An adult who, at least one full year prior to the residence determination date for the term in which enrollment is contemplated, can demonstrate both physical presence in the state combined with evidence of intent to remain in California indefinitely may establish California residence for tuition purposes. Minor normally derive residence from the parent(s) they reside with or most recently resided with.
Evidence demonstrating intent may vary from case to case but will include, and is not limited to, the absence of residential ties to any other state, California voter registration and voting in California elections, maintaining California registration and driver's license, maintaining active California bank accounts, filing California income tax returns, listing a California address on federal tax returns, owning residential property or occupying or renting an apartment where permanent belongings are kept, maintaining active memberships in California professional or social organizations, and maintaining a permanent military address and home of record in California.
Nonresident students seeking reclassification are required to complete a supplemental questionnaire that includes questions concerning their financial dependence on parents or others who do not meet University requirements for classification as residents for tuition purposes. Financial independence is required, along with physical presence and intent, to be eligible for reclassification.
Non-citizens establish residence in the same manner as citizens, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. Unmarried minor noncitizens derive their residence in the same manner as unmarried minor citizens except that both parents and minor must have an immigration status consistent with establishing domicile in the United States.
Exceptions to the general residence requirements are contained in California Education Code sections 68070-68084 and Title 5 of the California Code of Regulations, sections 41900-41916, and include, but are not limited to, members of the military and their dependents, certain credentialed employees of school districts, and most students who have attended high school in California and graduated or attained the equivalent. Whether an exception applies to a particular student cannot be determined before the submission of an application for admission and, as necessary, additional supporting documentation. Because neither campus nor Chancellor's Office staff may give advice on the application of these laws, applicants are strongly urged to review the material for themselves and to consult with a legal advisor.
Nonresident students seeking reclassification are required to complete a supplemental questionnaire including questions concerning their financial dependence on parents who cannot satisfy University requirements for classification as residents for tuition purposes, which will be considered along with physical presence and intent in determining reclassification.

Residence determination dates are set each term. They are:

| Fall | September 20 |
| :--- | :--- |
| Spring | January 25 |
| Summer | June 1 |

The residence determination dates for the four stages of CalStateTEACH are as follows:

| Stage 1 | September 20 |
| :--- | :--- |
| Stage 2 | January 5 |
| Stage 3 | June 1 |
| Stage 4 | September 20 |

Students classified as nonresidents may appeal a final campus decision within 120 days of notification by the campus. A campus residence classification appeal must be in writing and submitted to:

The California State University
Office of General Counsel
401 Golden Shore, 4th Floor
Long Beach, California 90802-4210
The Office of General Counsel can either decide the appeal or send the matter back to the campus for further review.
Students incorrectly classified as residents or incorrectly granted an exception from nonresident tuition are subject to reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Title 5 of the California Code of Regulations.
Resident students who become nonresidents or who no longer meet the criteria for an exception must immediately notify the Admissions Office.
Changes may have been made in the rate of nonresident tuition and in the statutes and regulations governing residence for tuition purposes in California between the time this information is published and the relevant residence determination date. Students are urged to review the statutes and regulations stated above.

## Seawolf Service Center

Salazar Hall
(707) 664-2308

## Financial Aid Office

Salazar Hall
(707) 664-2389

## Scholarship Office

Stevenson Hall
(707) 664-2261

## Spring 2011 Schedule of Student Charges*

See the Fee Schedule online for the most current mandatory registration charges and information, www.sonoma.edu/ar/registration/Fees.shtml

Mandatory registration charges required of all students for one semester:

| Resident Undergraduate |  |  |
| :---: | :---: | :---: |
| Units per semester | 1-6 | 7+ |
| Associated Students Fee | \$91 | \$91 |
| Consolidated Service Fee | \$14 | \$14 |
| Facilities Fee | \$14 | \$14 |
| Instructionally Related Activities Fee | \$205 | \$205 |
| Tuition Fee | \$1,287* | \$2,220* |
| Student Health Fee | \$121 | \$121 |
| Student Union Fee | \$194 | \$194 |
| Total Resident Undergraduate | \$1,926 | \$2,859 |
| Resident Graduate |  |  |
| Units per semester | 1-6 | 7+ |
| Tuition Fee | \$1,587* | \$2,736* |
| Campus-based Fees | \$639 | \$639 |
| Total Resident Graduate | \$2,226 | \$3,375 |
| Resident Credential Student** |  |  |
| Units per semester | 1-6 | 7+ |
| Tuition Fee | \$1,494* | \$2,577* |
| Campus-based Fees | \$639 | \$639 |
| Total Resident Credential Student | \$2,133 | \$3,216 |

## Additional Registration Charges

Professional Program Fee (MBA)
Per Unit \$231* in addition to mandatory registration charges

## Nonresident Students (U.S. and Foreign)

Nonresidents and foreign visa students are required to pay nonresident tuition in addition to mandatory registration charges charged to all students.

Tuition for Nonresident students in addition to mandatory registration charges:

- Charge Per Unit \$372*

The total nonresident tuition paid per term will be determined by the number of units taken.

Mandatory tuition fees are waived for those individuals who qualify for such exemption under the provisions of the California Education Code (see section on fee waivers).

Students are charged campus-based fees in addition to tuition fees. Information on campus-based fees can be found by contacting the Seawolf Service Center.

Nonresident students are eligible for an installment payment plan. There is a $15 \%$ service fee on the plan. Contact the Seawolf Service Center for details.
*The CSU makes every effort to keep student costs to a minimum. Fees listed in published schedules or student accounts may need to be increased when public funding is inadequate. Therefore, CSU must reserve the right, even after initial fee payments are made, to increase or modify any listed fee, without notice, until the date when instruction for a particular semester or quarter has begun. All CSU listed fees should be regarded as estimates that are subject to change upon approval by The Board of Trustees.
${ }^{* *}$ Students seeking an Initial Multiple Subject, Single Subject, or Special Education teaching credential (preliminary, clear, Level I, or Level II) admitted to a credential program with classified or conditionally classified status.

## Other Charges

ACT- Residual Test \$30
Alcohol and Other Drug Intervention
Level I Alcohol and Drug Intervention \$65
Seawolf Substance Intervention Program ..... \$180
Application Fee ..... \$55(This fee is payable upon application for admission orreadmission by all new students or students returningafter an absence of two or more semesters.)
Arts and Humanities Single Subject Evaluation ..... $\$ 60$Bilingual Education Program Test forSpanish and Culture\$35
Bio Feedback Training ..... \$15 / \$75
Chemistry Eyeglasses ..... \$4
College Major Scorecard ..... \$5
Counseling Transcript Evaluation ..... \$50
Credential Processing and Evaluation ..... \$25
Credential Processing Non-SSU Applicants ..... \$40
Credential Out of State Verification ..... \$15
Credential Subject Matter Authorization Eval. ..... \$15
Dishonored Check or Credit Card Fee (returned for any cause) ..... $\$ 20$
Failure to meet administratively required appointment or time limit ..... $\$ 20$
FEPL ..... \$250
Health Center/Pharmacy/Lab Service ..... costItems lost or broken, or damage toUniversity propertycost

Late Registration
Lost Keys
Meyers-Briggs Test
Modern Language Lab Fee
Modern Language Proficiency Exam
Musical Equipment Deposit
Musical Instrument/Audio/Visual Equipment Use
National League of Nursing Exam
PE Lost Equipment
PE Towel/Locker Use (optional)
RICA Exam Review (SSU students)
RICA Exam Review (non-SSU students)
SSU Waiver Subject Matter
Strong Interest Inventory
WEPT
Deposits for locker keys and breakage required in some laboratory courses. These deposits are refundable in whole or in part. If deposits are not required, charges may be made against the student for undue breakage or failure to clear locker and/or return key.

## Specific Course Fees

Payable when service is rendered. Students have the option of obtaining materials or services for specific courses from sources other than the University, so long as they meet the instructional requirements.
ARTH 212A/B \$15
ARTH 363
\$36
ARTS 102
\$20
ARTS 103
ARTS 204
ARTS 208, 308
ARTS 210, 310
ARTS 220, 320, 420
ARTS 229, 329, 429
ARTS 230, 330, 430
ARTS 236, 336, 436
ARTS 238, 338, 438
ARTS 245
ARTS 298, 498
ARTS 304, 404
ARTS 335,435
ARTS 340, 440
\$20
\$35
$\$ 45$
\$62
\$10
\$61
\$61
\$50
\$25
\$54

ARTS 342,442
\$25

ARTS 382, 482
ARTS 400
ARTS 432
\$35
\$68
\$54
\$54

ARTS 457
$\$ 54$

ARTS 458
ARTS 496 (Field Trip)
BIOL 121
BIOL 122
BIOL 220
\$61

BIOL 314
\$25

BIOL 330
BIOL 338 \$25
BIOL 350
\$30
BIOL 465 \$20
BIOL 502 \$40
CALS 310 \$10
CHEM 102,105, 115 A/B, 255, 232 \$25
CHEM 316, 335A, 336, 401, 402, 441 \$35
COMS 385 (1-2 units) \$25
COMS 385 (3-4 units) $\$ 50$
COUN 525 up to $\$ 25$
ENSP 323 \$15
ENSP 375 \$20
ENSP 411 A/B \$40
ENSP 430/440 \$30
ENSP 444 up to $\$ 250$
GEOG 314 A/B $\$ 10$
GEOG 314 D up to $\$ 150$
GEOG 318 up to $\$ 200$
GEOG 360 \$10
GEOL 102 \$12
GEOL 120 \$130
GEOL 304 \$175
GEOL 308 \$195
GEOL 412 \$185
GEOL 418 \$175
GEOL 420 \$195
GEOL 496 \$125
KIN 342 \$10
LIBS 101/102 \$100
LIBS 201/202 \$100
LIBS 360 \$15
NURS 205 \$160
NURS 305 \$25
NURS 509 \$25
NURS 549 \$25
NURS 550A \$25
POLS 345 \$350
THAR 300 (Field Trip) \$120

## Library Fees

Community Borrower Cards $\$ 10 / 3$ months
Friends of the Library Card varies

## Overdue Fees

25 cents per day on 28 -day loan items; $\$ 10$ maximum fine per item

## Overdue Fees for Reserve Materials

$\$ 20$ maximum fine per item
2 hrs. $\$ 1$ an hour
1 day $\$ 5$ a day
3 days $\quad \$ 5$ a day
7 days $\quad \$ 5$ a day
Overdue fees for media items
Audiocassettes $\$ 1$ a day

Compact discs, CD roms, videos, DVDs, laser discs, slides, phonos Headphones, phono keys

## Parking Fees

Auto, reserved, per semester \$262
Auto, non-reserved, per semester \$ 94
Motorcycle, per semester \$22
Daily permit

## Miscellaneous Fees

For other fees and charges, consult the current Schedule of Classes. Deposits for locker keys and breakage are required in some laboratory courses. These deposits are refundable in whole or in part. If deposits are not required, charges may still be made for undue breakage or failure to clear lockers and/or return keys. In addition, fees are required for miscellaneous expenses in some courses, as indicated in catalog course descriptions, and for field trips.

A fee of $\$ 25$ per semester is charged for use of music department instruments and equipment. In addition, a deposit of $\$ 20$ is required for each instrument checked out for each semester. The deposit will be refunded with the return of the instrument.

## Credit Cards

VISA, MasterCard, American Express, and Discover cards may be used for payment of student charges.

## Refund of Fees Including Nonresident Tuition

Regulations governing the refund of mandatory fees, including nonresident tuition, for students enrolling at the California State University are included in Section 41802 of Title 5, California Code of Regulations. For purposes of the refund policy, mandatory registration charges are defined as those tuition fees and campus-based fees that are required to be paid in order to enroll in state-supported academic programs at the California State University. Refunds of fees and tuition charges for self-support programs at the California State University (courses offered through extended education) are governed by a separate policy established by the University.

In order to receive a full refund of mandatory registration charges, including nonresident tuition fee or the Professional Program fee, a student must cancel registration or drop all courses prior to the first day of instruction for the term. Information on procedures and deadlines for canceling registration and dropping classes is available from Admissions and Records, Ruben Salazar Hall 2030, and in the Schedule of Classes.

For state-supported semesters, quarters, and non-standard terms, or courses of four (4) weeks or more, a student who withdraws during the term in accordance with the University's established procedures will receive a refund of mandatory registration charges, including nonresident tuition or the Professional Program fee, based on the portion of the term during which the student was enrolled. No student withdrawing after the 60 percent point in the term will be entitled
to a refund of any mandatory registration charges or nonresident tuition or the Professional Program fee.

For state-supported semesters, quarters, and non-standard terms, or courses of less than four (4) weeks, no refunds of mandatory registration charges and nonresident tuition or the Professional Program fee will be made unless a student cancels registration or drops all classes prior to the first day in accordance with the University's established procedures and deadlines.

Students will also receive a refund of mandatory registration charges, including nonresident tuition or the Professional Program fee, under the following circumstances:

- The mandatory registration charges were assessed or collected in error;
- The course for which the mandatory registration charges were assessed or collected was cancelled by the University;
- The University makes a delayed decision that the student was not eligible to enroll in the term for which mandatory registration charges were assessed and collected, and the delayed decision was not due to incomplete or inaccurate information provided by the student; or
- The student was activated for compulsory military service.

Students who are not entitled to a refund as described above may petition the University for a refund demonstrating exceptional circumstances, and the chief financial officer of the University, or designee, may authorize a refund, if he or she determines that the mandatory registration charges and non resident tuition or Professional Program fee were not earned by the University.

Information concerning any aspect of the refund of student charges may be obtained from the Seawolf Service Center.

## Seawolf Service Center

## Salazar Hall

(707) 664-2308

The following student-related functions are found in the Seawolf Service Center:

- Enrollment and Housing Deposits
- Payments for Student Charges
- Miscellaneous course fee payments
- WEPT and other test fees
- Equipment fees
- Requests for refund of fees
- Sale of parking decals
- Parking citation payments
- Housing room and board payments
- Issuance of campus keys
- Lost and found
- Paycheck pick-up
- Financial aid check disbursement
- Clearance of financial holds
- Routine maintenance requests for dorm students
- I.D. Card issuance and validation
- University-related notary services
- Travel reimbursement for students appointed to system-wide committees

The Seawolf Service Center is open extended hours, including evenings, when classes are in session. Refer to the current Schedule of Classes for hours of operation.

## Fees and Debts Owed to the Institution

Should a student or former student fail to pay a fee or a debt owed to the institution, the institution may "withhold permission to register, to use facilities for which a fee is authorized to be charged, to receive services, materials, food, or merchandise, or any combination of the above from any person owing a debt" until the debt is paid (see Title 5, California Code of Regulations, Sections 42380 and 42381).

Prospective students who register for courses offered by the University are obligated to pay fees associated with registration for those courses. Failure to cancel registration in any course for an academic term prior to the first day of the academic term gives rise to an obligation to pay student fees including any tuition for the reservation of space in the course.

The institution may withhold permission to register or to receive official transcripts of grades or other services offered by the institution from anyone owing fees or another debt to the institution. The institution may also report the debt to a credit bureau, offset the amount due against any future state tax refunds due the student, refer the debt to an outside collection agency and/or charge the student actual and reasonable collection costs, including reasonable attorney fees if litigation is necessary, in collecting any amount not paid when due.

If a person believes he or she does not owe all or part of an asserted unpaid obligation, that person may contact the campus business office. The business office, or another office on campus to which the business office may refer the person, will review all pertinent information provided by the person and available to the campus and will advise the person of its conclusions.

## Fee Waivers

The California Education Code includes provisions for the waiver of certain mandatory system-wide fees as follows:

Section 66025.3-Qualifying children, spouses, or unmarried surviving spouses of a war period veteran of the U.S. military who is totally service-connected disabled or who died as a result of service-related causes; children of any veteran of the U.S. military who has a service-connected disability, was killed in action, or
died of a service-connected disability and meets specified income provisions; qualifying dependents of a member of the California National Guard who in the line of duty and in active service of the state was killed or became permanently disabled, or died of a disability as a result of an event while in active service of the state; and undergraduate students who are the recipient of, or the child of, a recipient of a Congressional Medal of Honor and meet certain age and income restrictions;

Section 68075 (a) - An undergraduate student who is a member of the Armed Forces of the United States stationed in this state on active duty, except a member of the Armed Forces assigned for educational purposes to a state-supported institution of higher education, is entitled to resident classification only for the purpose of determining the amount of tuition and fees.
(b) A student seeking a graduate degree who is a member of the Armed Forces of the United States stationed in this state on active duty, except a member of the Armed Forces assigned for educational purposes to a state-supported institution of higher education, shall be entitled to resident classification only for the purpose of determining the amount of tuition and fees for no more than two academic years, and shall thereafter be subject to Article 5 (commencing with Section 68060).

Section 68121 - Student enrolled in an undergraduate program who are the surviving dependent of any individual killed in the September 11, 2001 terrorist attacks on the World Trade Center in New York City, the Pentagon building in Washington, D.C., or the crash of United Airlines Flight 93 in southwestern Pennsylvania, if the student meets the financial need requirements set forth in Section 69432.7 for the Cal Grant A Program and either the surviving dependent or the individual killed in the attacks must have been a resident of California on September 11, 2001.

Students who may qualify for these benefits should contact the Admissions and Records Office for further information and/or an eligibility determination.

## Procedure for the Establishment or Abolishment of Campus-Based Mandatory Fees

The law governing the California State University provides that fees defined as mandatory, such as a student body association fee and a student body center fee, may be established. A student body association fee must be established upon a favorable vote of two-thirds of the students voting in an election held for this purpose (Education Code, Section 89300). A student body center fee may be established only after a fee referendum is held which approves by a two-thirds favorable vote the establishment of the fee (Education Code, Section 89304). The student body fee was established at Sonoma State University by student referendum on May 2, 1980. The campus President may adjust the student body association fee only after the fee adjustment has been approved by a majority of students voting in a referendum established for that purpose (Education Code, Section 89300). The required fee shall be subject to referendum at any time upon the presentation of a petition to the campus President
containing the signatures of 10 percent of the regularly enrolled students at the University. Once bonds are issued, authority to set and adjust student body center fees is governed by provisions of the State University Revenue Bond Act of 1947, including, but not limited to, Education Code, sections 90012, 90027, and 90068. Student body association fees support a variety of cultural and recreational programs, childcare centers, and special student support programs.

The process to establish and adjust other campus-based mandatory fees requires consideration by the campus fee advisory committee and sometimes a student referendum. The campus President may use alternate consultation mechanisms if he/she determines that a referendum is not the best mechanism to achieve appropriate and meaningful consultation. Results of the referendum and the fee committee review are advisory to the campus President. The President may adjust campus-based mandatory fees, but must request the Chancellor establish a new mandatory fee.

For more information or questions, please contact the CSU Chancellor's Office, (562) 981-4579.

## Average Support Cost Per Full-time Equivalent Student and Sources of Funds

The total support cost per full-time equivalent student (FTES) includes the expenditures for current operations, including payments made to students in the form of financial aid, and all fully reimbursed programs contained in state appropriations. The average support cost is determined by dividing the total cost by the number of FTES. The total CSU 2010-11 budget amounts were $\$ 2,617,435,000$ from state General Fund appropriations (not including capital outlay funding), $\$ 1,244,603,000$ from net basic tuition fee revenue, and $\$ 320,211,000$ from other fee revenues and reimbursements for a total of $\$ 4,182,249,000$. The number of projected 2010-11 FTES is 339,873 resident and 14,509 non-resident students. FTES is determined by dividing the total academic student load by 15 units per term (the figure used here to define a full-time student's academic load).

The 2010-11 average support cost per FTES based on General Fund appropriation and net basic tuition fee revenue only is $\$ 11,213$ and when including all sources as indicated below is $\$ 12,117$. Of this amount, the average net basic tuition fee revenue and other income \& reimbursements per FTES is \$4,416, which includes all fee revenue in the CSU Operating Fund (e.g. tuition fees, application fees, other miscellaneous fees, and reimbursements).

## Average Cost

| 2010-11 | Amount | per FTES | Percentage |
| :---: | :---: | :---: | :---: |
| Total Support Cost | \$4,182,249,000 | \$12,117 | 100\% |
| - State Appropriation ${ }^{1}$ | 2,617, 435,000 | 6,542 | 64\% |
| - Net Basic Tuition Fee Revenue ${ }^{2}$ | 1,244,603,000 | 3,512 | 29\% |
| - Other Income \& Reimbursements ${ }^{2,3}$ | 320,211,000 | 904 | 7\% |

${ }^{1}$ "State Appropriation includes a decrease of $\$ 106$ million reflecting a shift of costs on a one-time basis to the federal American Recovery and Reinvestment Act State Fiscal Stabilization Fund. "
${ }^{2}$ Net Basic Tuition fee revenue and other income represents campus 2010-11 budgets submitted November 2010.
${ }^{3}$ Other income and reimbursements represent campus "other fee" 2010-11 final budget revenues submitted, as well as reimbursements in the CSU Operating Fund.

The average CSU 2010-11 academic year, resident, undergraduate student basic tuition fee and other mandatory fees required to apply to, enroll in, or attend the university is $\$ 5,285$. However, the costs paid by individual students will vary depending on campus, program, and whether a student is part-time, full-time, resident, or nonresident.

## Selective Services

The federal Military Selective Service Act (the "Act") requires most males residing in the United States to present themselves for registration with the Selective Service System within thirty days of their eighteenth birthdays. Most males between the ages of 18 and 25 must be registered. Males born after December 31, 1959, may be required to submit a statement of compliance with the Act and regulations in order to receive any grant, loan, or work assistance under specified provisions of existing federal law. In California, students subject to the Act who fail to register are also ineligible to receive any need-based student grants funded by the state or a public postsecondary institution.

Selective Service registration forms are available at any U.S. Post Office, and many high schools have a staff member or teacher appointed as a Selective Service Registrar. Applicants for financial aid can also request that information provided on the Free Application for Federal Student Aid (FAFSA) be used to register them with the Selective Service. Information on the Selective Service System is available and the registration process may be initiated online at www.sss.gov.

## Financial Aid and Scholarship Programs

## Financial Aid Office

Salazar Hall
707 664-2389
Fax 707 664-4242
finaid@sonoma.edu
www.sonoma.edu/FinAid
By contacting the Financial Aid Office staff and accessing the office's website, students and their families can find out about federal and state financial aid programs and, if eligible, be awarded monetary assistance to meet the costs of attending Sonoma State University.

The staff is committed to providing each applicant with timely and efficient customer service, as well as ensuring that students have access to current and accurate information about the steps and deadlines for completing the financial aid application process.

## Financial Aid Programs

Financial aid can be in the form of grants, loans, employment, and scholarships. Students may receive assistance from the following programs:

## Federal Aid

- Federal Pell Grants
- Federal TEACH Grants
- Federal Supplemental Educational Opportunity Grants
- Bureau of Indian Affairs Grants
- Federal Work Study (FWS)
- Federal Perkins Loans
- Federal Direct Student Loans
- Federal Direct Parent Loans for Undergraduate Students


## State Aid

- Cal Grants A and B
- Child Development Teacher Grants
- Alan Pattee Scholarships
- Assumption Program of Loans for Education
- Graduate Assumption Program of Loans for Education
- Robert C. Byrd Honors Scholarships
- Educational Opportunity Program Grants
- Graduate Equity Fellowships
- State University Grant

The Financial Aid Office has developed an informative and supportive website where students can find descriptions and specific eligibility requirements for the programs listed above. Students are encouraged to visit links provided on the website, to apply online, and to review the information about the California Student Aid Commission's programs on its website at www.csac.ca.gov and information about federal financial aid at www.studentaid.ed.gov

## Additional Work Opportunities

Employment is generally available in Sonoma County and the surrounding University service area to students with ability and initiative. The Career Services Center in Salazar Hall can be helpful in referring interested students to part-time job opportunities.

## Application Procedures

All new and continuing financial aid applicants are required to complete and submit the Free Application for Federal Student Aid (FAFSA) at www.fafsa.ed.gov. By submitting this single application, applicants will be considered for most of the federal and state financial aid programs that are listed above (excluding BIA and non-FWS employment). New applicants for Cal Grants must also file a California Student Aid Commission GPA Verification Form by March 2. The FAFSA asks for confidential information about family income, assets, household size, etc., which is used by the Financial Aid Of-
fice to establish financial need and determine what aid, if any, the student is eligible to receive.

To help avoid errors and to speed up processing of your FAFSA, apply online at www.fafsa.ed.gov. FAFSA on the Web worksheets will be available from the site by December. You (and your parent, if you will be required to report your parents' information) should also apply for a federal PIN at www.pin.ed.gov in December so you can sign your FAFSA electronically.

Apply as early after January 1 as possible. Those who apply in January will have first priority to the available funding. To be considered for priority filing and to apply for a new Cal Grant, you must file your application by March 2.

The Financial Aid Office expects the student and the student's family to make every effort possible to finance the student's education. Students who do not meet the federal definition of financial independence from their parents must provide parental financial data. This information, in addition to the student's own resources, will be taken into consideration when determining a student's eligibility for the various aid programs administered by the University. The student's financial need is determined by subtracting those resources available for education from a standard student budget.

It is toward meeting this need - the difference between costs and resources - that financial aid is directed. Generally, the need is met by a "package" - loan, scholarship, employment, and/or grant. Notification of aid for the following year is sent to each applicant once the FAFSA has been received. This process usually begins in late March for newly admitted students and in mid-June for continuing students.
Questions regarding a student's eligibility or types of financial aid offered should be directed to the Financial Aid Office. Contact hours, phone numbers, and e-mail addresses are available on the financial aid website at www.sonoma.edu/FinAid/.

## Scholarship Office

Stevenson Hall
(707) 664-2261

Fax 707 664-4410
www.sonoma.edu/Scholarship/

## University Scholarship Program

The University Scholarship Program at Sonoma State is made possible through the generous support of individuals, businesses, and organizations who recognize the outstanding contributions made by the University and its graduates.
Any incoming freshman, undergraduate, or graduate student planning to attend Sonoma State University full-time beginning in the fall semester, whether entering or continuing, is eligible. However, official notification of admission is not required. Application to, acceptance by, or enrollment in the University is required.

Most University scholarships are awarded on the basis of an applicant's academic record and overall achievements without special consideration of financial need. A minimum cumulative GPA of 3.00
on a 4.00 point scale is required. Students with a GPA of 3.5 or higher are most competitive in our program.

Applications of candidates are reviewed by the University Scholarship Committee. The committee asks each applicant to submit a personal narrative and two letters of recommendation, in addition to the basic scholarship application form.
Scholarship applications are available beginning September 15 each year. Applications and required materials must be received or postmarked by January 15. Students interested in applying for any of the awards offered through the University Scholarship Program may obtain an application form by:

1. Downloading the application from the Scholarship Office website: www.sonoma.edu/scholarship;
2. E-mailing the Scholarship Office at scholarships@sonoma.edu;
3. Contacting the Scholarship Coordinator in Salazar Hall 1010;
4. Calling (707) 664-2261; or
5. Faxing a request to (707) 664-4410.

## Presidential Scholar Program

In addition to the University Scholarship Program, Sonoma State also guarantees a $\$ 1,000$ President's Scholar Scholarship for incoming first-time freshmen who have a weighted cumulative 4.00 GPA for their sophomore and junior years and for the first semester of their senior years. The GPA calculation does not include P.E. courses, but does allow for "weighting" of honors, advanced placement and/or international baccalaureate courses, according to the high school's policy. Please contact the Scholarship Office by phone, e-mail, or fax for more information.

## Alan Pattee Scholarships

Children and spouses of deceased public law enforcement or fire suppression employees who were California residents and who were killed in the course of law enforcement or fire prevention or suppression duties are not charged mandatory tuition fees (tuition fee and application fee) at any California State University campus, according to the Alan Pattee Scholarship Act, Education Code, Section 68120 . Students qualifying for these benefits are known as Alan Pattee scholars. For more information, contact the Office of Admissions for an eligibility determination.

## Departmental and Athletic Scholarships

Many departments at SSU offer scholarships to students within their majors. Athletic scholarships are also given. Contact your department or respective coach for more information.

## External Scholarships

Community, social and service groups, employers, churches, and other organizations often provide scholarships. Applicants should check with their high school counselors or local foundations and community groups for more information.
Note: Receipt of any scholarship may affect eligibility for certain financial aid. Recipients should check with the Financial Aid Office to determine their options.

Page 26 Fees, Expenses, and Financial Assistance

## Appeals

Students have the right to appeal their financial aid award or any other financial aid decision that they feel affects them adversely and that falls outside of the jurisdiction of federal, state, or chancelIor's office regulations. This right includes answers to questions, explanations of financial aid policies and procedures, and a request for reconsideration. The initial appeal is made in writing, with any supporting documents, to the student's financial aid representative. If denied, the student may appeal directly to the Director of Financial Aid, whose decision is final. The Director has the option, based on the circumstances of the appeal, to refer the appeal to the Financial Aid Office Exception Processing Review Board for a decision and/ or to request advice and direction from the Financial Aid Advisory Committee.

## Availability of Institutional and Financial Assistance Information

The following information concerning student financial assistance may be obtained from Director of Financial Aid, Salazar 1000, (707) 664-2389:

1. A description of the federal, state, institutional, local, and private student financial assistance programs available to students who enroll at Sonoma State University;
2. For each aid program, a description of procedures and forms by which students apply for assistance, student eligibility requirements, criteria for selecting recipients from the group of eligible applicants, and criteria for determining the amount of a student's award;
3. A description of the rights and responsibilities of students receiving financial assistance, including federal Title IV student assistance programs, and the criteria for continued student eligibility under each program;
4. The satisfactory academic progress standards that students must maintain for the purpose of receiving financial assistance and criteria by which the student who has failed to maintain satisfactory progress may reestablish eligibility for financial assistance;
5. The method by which financial assistance disbursements will be made to students and the frequency of those disbursements;
6. The terms of any loan received as part of the student's financial aid package, a sample loan repayment schedule, and the necessity for repaying loans;
7. The general conditions and terms applicable to any employment provided as part of the student's financial aid package;
8. The responsibility of Sonoma State University for providing and collecting exit counseling information for all student borrowers under the federal student loan programs; and
9. The terms and conditions for deferral of loan payments for qualifying service under the Peace Corps Act, the Domestic Volunteer Service Act of 1973, or comparable volunteer community service.

Information concerning the cost of attending Sonoma State University is available from the Seawolf Service Center, Salazar 1000, (707) 664-2308, and includes mandatory registration charges and tuition (where applicable); the estimated costs of books and supplies; estimates of typical student room, board, and transportation costs; and, if requested, additional costs for specific programs. Information concerning the refund policies of Sonoma State University for the return of unearned tuition and charges or other refundable portions of institutional charges is available from the Seawolf Service Center, Salazar 1000, (707) 664-2308. Information concerning policies regarding the return of federal Title IV student assistance funds as required by regulation is available from Director of Financial Aid, Salazar 1000, (707) 664-2389.
Information regarding special facilities and services available to students with disabilities may be obtained from Director, Disability Services for Students, Salazar 1049, (707) 664-2677.
Information concerning Sonoma State University policies, procedures, and facilities for students and others to report criminal actions or other emergencies occurring on campus may be obtained from Senior Director, Police Services, Sonoma Bldg., (707) 664-2143.
Information concerning Sonoma State University Annual Campus Security Report may be obtained from Senior Director, Police Services, Sonoma Bldg., (707) 664-2143.

Information concerning the prevention of drug and alcohol abuse and rehabilitation programs may be obtained from Vice President for Student Affairs and Enrollment Management, Salazar 1018, (707) 664-2838.

Information regarding student retention and graduation rates at Sonoma State University and, if available, the number and percentage of students completing the program in which the student is enrolled or has expressed interest in may be obtained from Director, Institutional Research, Stevenson 1041, (707) 664-2790.
Information concerning athletic opportunities available to male and female students and the financial resources and personnel that Sonoma State University dedicates to its men's and women's teams may be obtained from Director of Athletics, P.E. 21, (707) 664-2521. Information concerning teacher preparation programs at Sonoma State University, including the pass rate on teacher certification examinations, may be obtained from Dean, School of Education, Stevenson 1078, (707) 664-3115.
Information concerning grievance procedures for students who feel aggrieved in their relationships with the University, its policies, practices, procedures, or its faculty and staff, may be obtained from Vice President for Student Affairs and Enrollment Management, Salazar 1018, (707) 664-2838.

## HOUSING SERVICES

Zinfandel Hall
(707) 664-2541

Fax: (707) 664-4158
e-mail: ssu.housing@sonoma.edu
www.sonoma.edu/housing

## On-Campus Housing

The Residential Community provides comfortable, convenient campus housing for 3,000 single students. The Community is a unique mix of nontraditional resident hall suites and campus apartments, all located just seconds from the main campus classroom buildings. All suites and apartments are fully furnished and carpeted and have their own living rooms and bathrooms. The apartments also contain their own kitchens with all appliances. All suites and apartments are wired into the University's computer network, giving residents direct access to University computing resources, the library, and the Internet. The Community has its own dining hall, swimming pools, study rooms, convenience store, post office, meeting rooms and outdoor recreation areas.
The Community's Residential Life Program includes live-in professional and peer staff, hundreds of social and educational activities, and thematic and special-interest living areas. The Freshman Interest Programs are specifically designed to help first-time freshmen transition successfully into their collegiate academic programs. Incoming freshmen who meet the admissions and housing contracting deadlines are given priority for campus housing.

## Off-Campus Housing

The Housing Services Office maintains a listing of available rental accommodations in the local area. This listing can be found online at www.sonoma.edu/housing, and includes rental houses, apartments and rooms in private homes. An off-campus rental guide containing the names and phone numbers of local apartment complexes is also available.

## Summer Session and Conferences

During the summer, the Residential Community provides housing and food services for Summer Session students and for participants in numerous conferences hosted on campus.

## UNIVERSITY DEGREES

## Bachelor's Degree Programs

## Bachelor of Arts (B.A.)

- American Multicultural Studies
- Anthropology
- Applied Statistics
- Art, with a concentration in:
- Art Studio
- Art History
- Film History Emphasis
- Biology, with concentrations in:
- Botany
- Zoology
- Chemistry
- Chicano and Latino Studies
- Communication Studies
- Criminology and Criminal Justice Studies
- Earth Science
- Economics, with concentrations in:
- International Economics
- Labor and Public Economics
- Managerial Economics
- English, with concentrations in:
- Creative Writing
- Literature
- Secondary Teaching Preparation
- Environmental Studies, with concentrations in:
- Education and the Environment
- Energy Management and Design
- Environmental Conservation and Restoration
- Outdoor Leadership
- Planning (City and Regional Planning)
- Water Quality and Hazardous Materials Management
- French
- Geography, with concentrations in:
- Biophysical Environment
- Environment and Society
- Geospatial Techniques
- Globalization and Cultural Identity
- Global Studies, with concentrations in:
- Asia
- Europe
- Global Environmental Policy
- International Economic Development
- Latin America
- History
- Human Development
- Hutchins School of Liberal Studies
- Interdisciplinary Studies Plan
- Teaching Credential Preparation Plan
- Liberal Studies (Ukiah)
- Mathematics
- Music, with concentrations in:
- Applied Music
- Jazz Studies
- Liberal Arts
- Music Education
- Philosophy, with a concentration in:
- Pre-Law and Applied Ethics
- Physics
- Political Science
- Psychology
- Sociology
- Spanish
- Special Majors:
- Interdisciplinary
- Theatre Arts, with concentrations in:
- Acting
- Dance
- Technical Theatre
- Women's and Gender Studies


## Bachelor of Fine Arts (B.F.A.)

- Art Studio, with areas of emphasis in:
- Painting
- Photography
- Printmaking
- Sculpture


## Bachelor of Science (B.S.)

- Biochemistry
- Biology, with concentrations in:
- Ecology, Evolution and Conservation
- Marine Biology
- Microbiology
- Molecular and Cell Biology
- Physiology
- Business Administration, with concentrations in:
- Accounting
- Finance
- Financial Management
- Marketing
- Wine Business Strategies
- Chemistry
- Computer Science
- Electrical Engineering
- Environmental Studies, with a concentration in:
- Energy Management and Design
- Water Quality and Hazardous Materials
- Geology
- Kinesiology, with concentrations in:
- Adapted Physical Education
- Exercise Science
- Lifetime Fitness
- Physical Education
- Mathematics, with concentrations in:
- Applied Mathematics
- Computer Science
- Nursing
- Basic BSN
- LVN-BSN
- RN-BSN
- Physics, with a concentration in:
- Applied Physics
- Special Major (Interdisciplinary)
- Statistics


## Master's Degree Programs

## Master of Arts (M.A.)

- Counseling, with concentrations in:
- Community Counselors: Marriage and Family Therapy (M.F.T.)
- School Counseling: Pupil Personnel Services (P.P.S.)
- Cultural Resources Management (Anthropology)
- Education, with concentrations in:
- Curriculum, Teaching, and Learning
- Early Childhood Education
- Educational Leadership
- Reading and Language
- Special Education
- TESOL
- English
- History
- Interdisciplinary Studies (ITDS)
- Kinesiology
- Organization Development, through Special Sessions
- Psychology, through Special Sessions
- Depth Psychology
- Spanish, through Special Sessions


## Master of Business Administration (M.B.A.), with concentration in Wine Business

- Executive M.B.A., through Special Sessions


## Master of Public Administration (M.P.A.)

## Master of Science (M.S.)

- Biology
- Computer and Engineering Science, through Special Sessions, with concentrations in:
- Bioengineering
- Communications and Photonics
- Computer Hardware and Software Systems
- Nursing, with concentrations in:
- Family Nurse Practitioner
- Leadership and Management
- Interdisciplinary Studies (ITDS)


## Doctoral Degree Program

## Doctorate of Education (Ed.D.)

- Educational Leadership (jointly with University of California, Davis)


## Minor Programs

- American Multicultural Studies
- Anthropology
- Applied Arts
- Applied Statistics
- Art Studio
- Art History
- Arts Management (Career Minor)
- Astronomy
- Biology
- Business Administration
- Chemistry
- Chicano and Latino Studies
- Computer Science
- Criminology and Criminal Justice Studies
- Early Childhood Education
- Economics
- Electrical Engineering
- English
- Environmental Studies and Planning
- Film Studies
- French
- Geography
- Geology
- German
- Gerontology
- Global Studies
- Health Systems Organizations (Career Minor)
- History
- Integrative Studies
- Interdisciplinary Studies
- Jewish Studies
- Kinesiology
- Latin American Studies
- Linguistics
- Mathematics
- Mathematics for Teachers
- Music
- Native American Studies
- Paleontology
- Philosophy
- Physical Sciences
- Physics
- Political Science
- Psychology
- Queer Studies
- Sociology
- Spanish
- Theatre Arts
- Women's Health (Career Minor)
- Women's and Gender Studies


## DEGREE REQUIREMENTS

## Baccalaureate Candidates

The University grants baccalaureates for the successful completion of a coherent course of study at the University and the maintenance of appropriate levels of scholarship. The requirements that follow specify certain course work, unit distributions, and levels of scholarship that the California State University and the faculty of Sonoma State University have determined provide an appropriate educational framework for all students pursuing a baccalaureate. These requirements, however, provide only a framework. It is critical that each student consult regularly with an academic advisor. Students who have declared a major are assigned an academic advisor in the department of their major. Students who have not yet declared a major are assigned advisors in conjunction with their Educational Mentoring Teams or through the Advising, Career, and EOP Services, Salazar 1070, (707) 664-2427.
Students are eligible for graduation when they are in good standing and have fulfilled the following requirements:

## 1. Faculty Approval

The determination that students have achieved appropriate proficiency in any and all parts of the curriculum to warrant the granting of a degree is the responsibility of the faculty. A favorable vote of the faculty acting through the academic senate is required for the granting of any degree.

## 2. Completion of a General Education Program

The effectiveness of an education in the liberal arts and sciences is critically dependent upon the broad foundation of studies called general education. Through a program of general education, students learn a variety of basic skills and modes of disciplinary inquiry. General education courses are not simply the preliminary and introductory studies of the various disciplines; rather, they provide the necessary context for the more specific study in the major and for the selection of appropriate electives. Completion of one of Sonoma State University's general education programs also ensures completion of graduation requirements in U.S. History, Constitution, and American Ideals (American Institution requirements).

## 3. Completion of a Major

Through a concentration of studies in a particular major, students focus in depth upon a particular set of disciplines or subject areas. Because major programs vary considerably in their requirements, students should consult with faculty advisors early in their academic programs. Students may declare a major at any time, but are required to do so by the time they have earned 65 units or have completed their first semester at Sonoma State University, whichever is later. Descriptions of the majors are found with the department listing in the University Curricula section of this catalog.

## 4. Completion of the Written English Proficiency Requirement

All students of the California State University system must demonstrate competency in writing as a requirement for graduation. At Sonoma State University, students complete this requirement by passing the Written English Proficiency Test (WEPT). All students are required to take the WEPT in their junior year and cannot take it earlier. To sign up for the WEPT, students must pay the exam fee at the Customer Services Center and then register at the Writing Center. Exam dates are posted at the Writing Center and on the Center's website at www.sonoma.edu/programs/writingcenter/. Students who have difficulty passing the WEPT are advised to seek assistance through the WEPT workshops provided by the Writing Center. The Center offers two workshop series per term. Students who have failed the WEPT and feel they would benefit from additional formal instruction in writing may elect to enroll in ENGL 275, a course specifically designed to help students develop skills necessary to pass the WEPT. Students who have questions about the WEPT should contact the WEPT coordinator at (707) 664-2058.

## 5. Maintenance of Scholarship

A grade point average of $\mathrm{C}(2.00)$ or better is required in work undertaken in residence at Sonoma State University, as well as in the student's total undergraduate work and in the major field. The C average for the major includes all classes listed on the Major Requirements form, except that supporting courses, while required for some majors, are not included in the major grade point average.

## 6. Unit Requirements and Limitations

The following requirements and limitations governing course credit units must be observed:
a. Total Units: A minimum of 120 semester units is required for graduation (some majors require up to 132 semester units for graduation);
b. Upper-Division Units: Forty units must be upper-division work (300-499 courses), including a minimum of 12 units in the major for the B.A. degree or 18 units in the major for the B.S. degree;
c. Residence Units: Thirty units must be completed in residence at Sonoma State University, including 24 upper-division units, 12 units in the major, and 9 units in general education. The B.F.A. in Art requires 24 upper-division units in Art in residence. Note: Units earned in Extension, Open University, Visitor status at Sonoma, nonbaccalaureate-level courses, and through credit by examination may not be applied to residence requirements; and
d. Credit/No Credit Grades. A maximum of 24 units of courses with nontraditional grades may be elected. Students completing the Hutchins School interdisciplinary general education lower-division program may exceed this minimum by 24 units. Courses fulfilling major and minor requirements must be graded A-F, except for courses not available in the A-F mode.

Other maximum limits of semester units to be applied toward degree requirements are:

Correspondence and Extension Studies 24 units
Community Involvement Project 295/395
Special Studies 495
Student-Instructed Courses 199/399
Community College transfer credit
Credit by Examination
Faculty-Evaluated Prior Learning

## Minor Programs

A minor is not required for graduation. Many departments, however, offer programs leading to a minor, and students are encouraged to consider pursuing a minor that complements their major. Minor programs ordinarily consist of approximately 16-20 units, 6 of which must be upper division, and require maintenance of a C (2.00) average in minor coursework. Faculty advisors in the department offering the minor will assist students in selecting appropriate courses. Coursework in the minor must be completed by the degree date. The minor appears on the student's official transcripts but not on the diploma.

## Electives

To complete the minimum of 120 semester units required for graduation after fulfillment of general education, statutory, and major requirements, students may choose from a broad spectrum of courses to broaden their education, deepen understanding of their specialties, pursue work in related fields, and satisfy their curiosity and enthusiasm regarding particular areas of interest.

## Double Majors

It is sometimes possible for a student to complete the requirements for more than one major within 120 units. If you complete requirements for two bachelor degrees, both will appear on your diploma and transcripts. Students who wish to complete requirements for a second major should consult with a faculty advisor early in their academic program.

## Second Bachelor's Degree

To earn a second baccalaureate at Sonoma State University, students must fulfill the requirements of the major, demonstrate competence in English composition by passing the Written English Proficiency Test, and satisfy the general education-breadth requirements specified by Title 5, Section 40405 of the California Administrative Code. Second
baccalaureate candidates must complete 30 units of residence credit at Sonoma State University and should consult with their faculty advisors regarding the portion of those 30 units that must be earned in upper-division courses (minimum 24 for residency). Note: Units earned in Extension, Open University, and Visitor status, and through credit-by-examination may not be applied to residence requirements.

## Awarding of Degrees

Degrees are awarded three times a year;; in December, May, and August, with diplomas mailed within six weeks after the date of award of degree. Candidates for graduation should file an "Application for Award of Degree" form at the Admissions and Records Office two semesters before the anticipated semester of graduation. This will enable the graduation evaluators to determine remaining requirements to be completed. Please see the academic calendar for filing dates and the actual dates of graduation. You must meet all degree requirements by the date of graduation or reapply for graduation by filing another "Application for Award of Degree" form.

## Honors at Graduation

The University awards two types of honors to students at graduation: degree honors and department honors.

## 1. Degree Honors

Criteria used to determine honors at graduation are those in effect as of the date of graduation. Students graduating with the baccalaureate earn degree honors by meeting the following criteria:
a. Completion at Sonoma State University of a minimum of 45 letter-graded semester units in residence; and
b. Attainment of cumulative grade point averages as indicated below:

## Degree Honor Designation

Summa Cum Laude - is awarded to those students achieving a cumulative grade point average in all university and college work and a cumulative grade point average in all work undertaken at SSU of not less than 3.90 .

Magna Cum Laude - is awarded to those students achieving a cumulative grade point average in all university and college work and a cumulative grade point average in all work undertaken at SSU of not less than 3.75.
Cum Laude - is awarded to those students achieving a cumulative grade point average in all university and college work and a cumulative grade point average in all work undertaken at SSU of not less than 3.50 .

Degree honors are noted on the student's transcript and on the diploma.

## 2. Department Honors

Students graduating with the baccalaureate who are judged by their departments to have made outstanding contributions to their disciplines graduate "with distinction." Check with your major department to learn if they offer departmental honors.

Departmental honors are noted on the student's transcript and on the diploma.

## General Education Program

Important Note: Beginning in Fall 2011, the University-Wide Option will change for new first-time freshmen students. Please go to www.sonoma.edu/aa/advising to view requirements of the new 50-unit GE pattern.

## Mission

General Education (GE) at Sonoma State University investigates the complexity of human experience in a diverse natural and social world, and promotes informed and ethical participation as citizens of the world.

## Teaching Goals

To achieve this mission, in concert with the specific needs of various GE Areas of Study, the GE program asserts the following fundamental goals for all GE approved classes:
I. Teach students to think independently, ethically, critically, and creatively;
II. Teach students to communicate clearly to many audiences;
III. Teach students to gain an understanding of connections between the past and the present, and to look to the future;
IV. Teach students to appreciate intellectual, scientific, and artistic accomplishment; and
V. Teach and/or build upon reading, writing, research, and critical thinking skills.

## Learning Objectives

## 1. Acquire a foundation of intellectual skills and capacities

a. Develop intellectual curiosity (Supports Goals I, II, III, IV, and V);
b. Develop research skills (I, III, IV, V);
c. Write and speak effectively to various audiences (I, II, V);
d. Evaluate everyday experiences critically (I, III, IV, V);
e. Develop capacity to reason quantitatively (I, IV, V);
f. Work collaboratively to achieve defined goals and objectives (I, II, V);
g. Develop skill in the use of information technology (I, II, V);
h. Imagine, design, and execute scholarly and creative projects (I, II, IV, V); and
i. Translate problems into common language (I, II, V).

## 2. Develop social and global knowledge

a. Understand and appreciate human diversity and multicul-
tural perspectives (I, II, III, IV, V);
b. Prepare for active engagement in the community (I, II, III, V);
c. Understand and be sensitive to the global environment (l, II, III, IV, V);
d. Understand social justice issues (I, III, IV, V); and
e. Engage with challenging moral and ethical human dilemmas (I, II, III, IV, V).
3. Understand and use multiple methods of inquiry and approaches to knowledge
a. Understand and appreciate mathematics and science (I, II, III, IV, V);
b. Understand and appreciate fine and performing arts (I, II, III, IV, V);
c. Understand and appreciate historical and social phenomena (I, II, III, IV, V); and
d. Recognize and use perspectives of diverse disciplines (I, II, III, IV, V).
4. Develop capacities for integration and lifelong learning
a. Evaluate alternative career choices (I, III, IV, V);
b. Recognize the importance of lifelong learning (I, II, III, IV, V);
c. Integrate general education experiences (I, II, III, IV, V);
d. Cultivate ways to empower the learning of others (I, II, III, IV, V ; and
e. Engage in responsible citizenship (I, II, III, IV, V).

Learning Objectives for each of the GE areas can be found at http:// www.sonoma.edu/GE/MGO_LO.html

There are two options for completing general education at Sonoma State University: the University-Wide Option and the Hutchins School Interdisciplinary Option.

## The University-Wide Option

Each baccalaureate candidate will complete a University-approved general education program, with courses distributed among the following categories:

Communication and Critical Thinking
Natural Sciences and Mathematics
Arts and Humanities
Social Sciences
Integrated Person
Within these categories, one course in ethnic studies is required. At least 9 units of general education must be in upper-division (300 and 400) courses and shall be taken no sooner than the term in which upper-division standing (completion of 60 semester units) is attained. The 9 upper-division units may be completed by enrollment in one of the upper-division thematic blocks or by choosing upper-division courses in two of the four areas (B-E).

The following general education program was designed for implementation in the Fall 1990 semester. A new GE Program will be implemented in Fall 2011 for new students entering in 2011.

## Ethnic Studies Requirement

One course in ethnic studies is required. Courses that fulfill this
requirement are marked with an asterisk (*).

## Foundation Courses

These courses are designed to provide students with the level of writing, analytical, and speaking proficiency appropriate for a university education. Freshmen are expected to complete these courses as soon as possible after enrolling at SSU, certainly during their first two years. The foundation course categories are Fundamentals of Communication (A2), Critical Thinking (A3), Written and Oral Analysis (A1), and Mathematical Concepts and Quantitative Reasoning (B4).

## A. Communication and Critical Thinking (9 units)

Area A studies provide students with foundational concepts and experiences that are vital to human communication and critical thinking. These studies encourage the coherent and sequential development of an intellectual practice through active engagement with and analysis of language.
Complete one course from each of the following three groups:

## 1. Written and Oral Analysis

Prerequisites: Areas A2 and A3.
AMCS 200 Written and Oral Analysis (3)
ENGL 200 California Cultural Analysis (3)
ENGL 201 Written and Oral Discourse Studies (3)
GLBL 200 Written and Oral Analysis: Global Studies (3)
HUM 200 Written and Oral Analysis (3)
ITDS 200 California Cultural Analysis (3)
PHIL 200 Philosophical Issues (3)

## 2. Fundamentals of Communication

ENGL 101 Expository Writing and Analytical Reading (3)
ENGL 100A/B First-Year Composition (3/3)

## 3. Critical Thinking

PHIL 101 Critical Thinking (3)
PHIL 102 Introduction to Logic (3)
UNIV 150AB (A1 and A3) Freshman Year Experience: Identity and Global Challenges (5/4)

## B. Natural Sciences and Mathematics (12 units)

In natural sciences, humans use their perceptions and quantitative reasoning to discover the principles and rules that govern how the universe works. Courses in this area of general education examine important theories of the natural sciences, and methods and models by which scientific investigation proceeds. They also seek to increase scientific understanding and to imbue students with the sense of curiosity and wonder about the natural world that inspires scientists and mathematicians in their work.
Complete 12 units ( 9 in science and 3 in mathematics), including a laboratory activity ('\#' denotes laboratory course).

Complete 3 units from group 1 and ANTH 201, BIOL 110 or 115 from group 2.

## 1. Physical Sciences

Physical science courses seek to awaken in students an appreciation of the power of the intellectual approach of science through the study of some of the funda-
mental questions pursued by astronomers, chemists, geologists, and physicists.
ASTR 100 Descriptive Astronomy (3)
ASTR 231 Introductory Observational Astronomy (2)\#
CHEM 102 Chemistry and Society (3)\#
CHEM 105 Elements of General, Organic, and Biochemistry (5)\#
CHEM 115AB General Chemistry (5)\#
CHEM 125AB Honors Analytical General Chemistry (5)\#
GEOL 102 Our Dynamic Earth (3)\#
GEOL 105 The Age of Dinosaurs (3)
PHYS 100 Descriptive Physics (3)
PHYS 102 Descriptive Physics Lab (1)\#
PHYS 114 Introduction to Physics I (4)
PHYS 116 Introductory Laboratory Experience (1)\#
PHYS 209A General Physics Laboratory (1)\#
PHYS 210A General Physics (3)

## 2. Biological Sciences

Life science courses develop students' understanding and appreciation of the fundamental principles that govern all living things and the nature of their interdependence.
ANTH 201 Biological Anthropology (3)
BIOL 110 Biological Inquiry (4)\#
BIOL 115 Introduction to Biology (3)
To complete a minimum of 9 units in science, select additional units from group 1 or 2 above or from group 3 below:

## 3. Specific Emphasis

Specific emphasis courses provide students an opportunity to explore a particular area of interest in the natural sciences.
ASTR 303 Extraterrestrial Intelligence and Interstellar Travel (3)
ASTR 305 Frontiers in Astronomy (3)
ASTR 350 Cosmology (3)
BIOL 121 Diversity, Structure, and Function (4)\#+
BIOL 122 Genetics, Evolution, and Ecology (4)\#+
BIOL 123 Molecular and Cell Biology (4)\#+
BIOL 220 Human Anatomy (4)\#
BIOL 224 Human Physiology (4)\#
BIOL 308 Environmental Toxicology (3)
BIOL 309 Biology of Cancer (3)
BIOL 311 Sexually Transmitted Diseases (3)
BIOL 312 Biological Oceanography (3)
BIOL 314 Field Biology (3)\#
BIOL 315 Plants and Civilization (3)
BIOL 385 Contemporary Issues in Biology (3)
CS 101 Introduction to Computers and Computing (3)
CS 115 Programming I (4)
ES 101A Communication in the Digital Age (3)
ES 101B Communication in the Digital Age Laboratory (1)\#
GEOG 204 Global Environmental Systems (4)
GEOL 110 Natural Disasters (3)
GEOL 120 Regional Field Geology (3)\#
GEOL 301 Natural History of the Hawaiian Islands (3)
GEOL 303 Advanced Principles of Geology (4)\#
PHYS 300 Physics of Music (3)

## PHYS 342 Light and Color (3)

Complete one course from the following group:

## 4. Mathematical Concepts and Quantitative Reasoning

Mathematics courses develop students' appreciation of one of the chief tools of the natural and social sciences, a philosophy of the abstract concepts of pure form and numbers, and an approach to reasoning and logical argument.
MATH 103 Ethnomathematics (3)
MATH 104 Introduction to Modern Mathematics (3)
MATH 105 Mathematics and Politics (3)
MATH 107 Precalculus Mathematics (4)
MATH 111 Symmetry in the Sciences and Arts (3)
MATH 131 Introduction to Finite Mathematics (3)
MATH 141 Studies in Modern Mathematics (3)
MATH 150 Modern Geometry (3)
MATH 161 Differential and Integral Calculus I (4)
MATH 165 Elementary Applied Statistics (4)

## C. The Arts and Humanities (12 units)

In Area C, students will cultivate intellect, imagination, sensibility, sensitivity, and interpretive skills by studying significant works of the human imagination. In addition, they will develop a greater understanding of the interrelationships among the creative arts, the humanities and the self across a variety of cultural contexts.

Complete one course from each of the following four groups:

## 1. History of the Fine Arts, Theatre, Dance, and Music

Courses in the history of the fine arts, theatre, dance, and music study human cultural endeavors and may develop skills through hands-on experience in the fine and performing arts. An understanding of, and appreciation for, the arts help a student form an appreciation for manifestations of human awareness and values.
AMCS 392 Ethnic Images in Film and Media (3)*
ARTH 210 Introduction to Art History (3-4)
ARTH 211 Introduction to Art History (3-4)
ARTH 212 AB Introduction to World Film History (3)
ARTH 270AB Survey of Asian Art (3-4)
ARTH 454 Nineteenth Century Art (3-4)
ARTH 460 History of American Art (3-4)
ARTH 464 History of Modern Art - $20^{\text {th }}$ Century (3-4)
ARTH 465 Modern Art from 1945 to 1979 (3-4)
CALS 368 Chicano/Latino Music (3)*
CALS 393 Chicano/Latino Cinema (3)*
CALS 479 Chicano/Latino Art History (3-4)*
MUS 105 Music Theory for Non-Majors (3)
MUS 150 Survey of U. S. Music (3)
MUS 250 Survey of European Music (3)
MUS 301 Music and Technology: Then and Now (3)
MUS 343 Studies in Musical Genres (3)
MUS 344 Studies in Specific Composers (3)
NAMS 205 Introduction to Native American Arts (3)*
NAMS 338 Native Americans and the Cinema (3)*
THAR 101 Making Theatre (3)
THAR 202 Introduction to History of Drama and Dance: Origins to 1800 (3)

THAR 203 Introduction to History of Drama and Dance: 1800 to present (3) THAR 300 Theatre in Action (3)

## 2. World Literature

World literature introduces students to great works from a variety of cultural traditions in order to develop aesthetic awareness and to expand appreciation of similarities and varieties in human experience.
AMCS 360 Ethnic Literature (3)*
CALS 374 Chicano/Latino Literature ( $3-4)^{*}$
ENGL 214 Literature of the World (3)
ENGL 215 Introduction to California Literature (3)
ENGL 314 Modern World Literature in English (3)
ENGL 315 California Ethnic Literature (3)*
ENGL 345 Women Writers (3)
FL 214 World Literatures in English (3)
FL 314 World Literatures in English Translation (3)
FR 314 French Literatures in English Translation (4)
GER 314 Literature and Culture of the German-Speaking World (3-4)
NAMS 354 Native American Literatures (3)*

## 3. Philosophy and Values

Philosophy and Values provides students with the opportunity to engage in the critical study of important philosophical questions which affect their lives. Some example topics are philosophy and religion; the politics of knowledge; morality and value theory; applied ethics; political philosophy; comparative philosophy; philosophy of the self and society; philosophy of science, technology and the perception of reality.
AMCS 350 Ethics, Values, and Multiculturalism (3)*
CALS 352 Chicano/Latino Philosophy (3-4)*
HUM 301 War and Peace Lecture Series (3)
NAMS 346 Philosophic Systems and Sacred Movements in Native North America (3)*
PHIL 120 Introduction to Philosophy (3)
PHIL 302 Ethics and Value Theory (3)
SOCl 431 Sociology of Religion (4)

## 4. Comparative Perspectives and Foreign Languages

Comparative perspectives and the study of a foreign language introduce students to cultural traditions other than those derived from Anglo-American society. These studies provide opportunities for a deeper understanding of diverse cultures and corresponding value systems.
AMCS 255 Ethnicity in the Humanities (3)*
AMCS 355 Language and Ethnicity (3-4)*
ARTH 363 Other Cinemas (3)
CALS 220 Chicano/Latino Arts and Literature (3)*
CALS 225 Spanish for Bilinguals (3-4)
CALS 451 Chicano/Latino Humanities (3-4)*
ENGL 280 Introduction to California Cultural Studies (3)
FR 101 First-Semester French (4, see note, next page)
FR 102 Second-Semester French (4, see note, next page)
FR 201 Third-Semester French (4)
FR 202 Oral French (4)
FR 300 Introduction to Literary Analysis \& Critical Writing (4)
FR 320 France Yesterday (4)
FR 321 France Today (4)
FR 410 French Literature (4)
FR 411 French Literature (4)
FR 415 Special Topics in French Culture (4)

FR 475 Senior Seminar (4)
GER 101 First Semester: The Personal World (4, see note, next page)
GER 102 Second Semester: Contemporary Germany (4, see note, next page)
GER 200 Intermediate German: The German-Speaking World Today (4)
GER 210 Intermediate German through Film (4)
GER 300 Advanced German Studies (4)
ITDS 280 Introduction to California Cultural Studies (3)
MUS 101 Introduction to Music (3)
MUS 201 Music in Action (3)
MUS 350 Survey of World Music (3)
MUS 370 Music and Dance in the World's Religions (3)
SPAN 101 Basic Spanish, First Semester (4, see note, below)
SPAN 102 Basic Spanish, Second Semester (4, see note, below)
SPAN 201 Intermediate Spanish, First Semester (4)
SPAN 202 Intermediate Spanish, Second Semester (4)
SPAN 300 Advanced Spanish Language (4)
SPAN 301 Advanced Composition and Conversation (4)
SPAN 304 Introduction to Spanish Linguistics (4)
SPAN 305 Introduction to Literature and Research (4)
SPAN 306 Cultures of Spain (4)
SPAN 307 Cultures of Latin America (4)
SPAN 400 Special Topics in Linguistics (4)
SPAN 401 Peninsular Literature (4)
SPAN 402 Latin American Literature (4)
SPAN 410 Spanish Translation: Theory and Practice (4)
SPAN 426 Seminar in Modern Varieties of Spanish (3)
SPAN 490 Seminar in Linguistics (4)
SPAN 491 Seminar in Literature (4)
THAR 200 Seeing Theatre Today (3)
THAR 373 Dances of the World (3)
THAR 374 Theatre of the World (3)
*Courses that fulfill the Ethnic Studies requirement are indicated with an asterisk.
Note: A first-year language course may only be selected if the student has met the high school subject requirement (two years) in another second language or if the student has completed one year of another second language at the college level.

## D. Social Sciences (15 units)

The social sciences concentrate on the description and explanation of organization, variation and change in social practices and institutions. Courses in this area examine the diversity, variety and complexity of human life at every scale from the individual to the global. Courses instill an appreciation of the multiple perspectives and methodologies that social science disciplines offer for understanding the human experience.

Complete one course in each of the following five groups:

## 1. Individual and Society

Individual and Society focuses on the personal and social development of the individual and on the person's relation to social institutions. It includes theoretical explanations of the individual's social relationships in groups, in societies, and across nations.
AMCS 210 Ethnic Groups in America (4)*
AMCS 339 Ethnic Groups and American Social Policy (3)*
ANTH 203 Introduction to Cultural Anthropology (3)
CALS 219 Chicano/Latino Identity and Heritage (3)*

CALS 339 Chicanos/Latinos in U.S. Society (3-4)*
CCJS 201 Criminal Justice and Public Policy (4)
EDUC 417 School and Society (3)
GERN 319 Aging and Society (4)
NAMS 200 Introduction to Native Americans (3)*
PSY 250 Introduction to Psychology (3)
PSY 303 The Person in Society (3)
PSY 326 Social Psychology (4)
SOCI 201 Introduction to Sociology (3)
SOCI 319 Aging and Society (4)
SOCI 326 Social Psychology (4)
SOCI 375 Classical Sociological Theory (4)
WGS 375 Gender, Race and Class (3)*

## 2. Nature and Development of Complex Societies

This subject area examines the emergence of complex societies and their diversity across time and space. Courses examine the ways in which societies and aspects of them function and interact, and the theoretical constructs that have been developed to explain these interactions and their social and environmental consequences.
ANTH 341 Emergence of Civilizations (3)
GEOG 203 Human Geography (3)
HIST 201 Foundations of World Civilization (3)
HIST 202 Development of the Modern World (3)
HIST 380 20th Century World (3)

## 3. United States History

United States history seeks to provide a basic understanding of the continuity of the American experience and its derivation from other cultures, including political and economic dimensions, social movements, and human-environment relationships. Satisfies state code requirement in this subject area.
HIST 241 History of the Americas to Independence (3)
HIST 242 History of the Americas since Independence (3)
HIST 251 History of the United States to 1877 (3)
HIST 252 History of the United States since 1865 (3)

## 4. U.S. Constitution and California State and Local Government

U. S. Constitution and California State and Local Government acquaints students with the political philosophies upon which the U.S. Constitution is based and the rights and obligations of citizens under that Constitution. It also addresses the evolution of federal-state relations and the political processes in contemporary California state and local governments. Satisfies state code requirement in this subject area.
POLS 200 The American Political System (3)
POLS 202 Issues in Modern American Politics (4)

## 5. Contemporary International Perspectives

Contemporary International Perspectives studies major economic and political dimensions of human activity, including consideration of differential access to natural resources, wealth, and power within and among the world's nations.
CALS 432 Latinas/os and Globalization (4)*
ECON 204 Introduction to Macroeconomics (4)
ECON 426 Seminar in the History of Economic Thought (4)
ENSP 200 Global Environmental Issues (3)
GEOG 202 World Regional Geography (3)
GEOG 302 World Regional Geography (4)
LING 200 Introduction to Linguistics Studies (3)
POLS 201 Ideas and Institutions (4)
POLS 315 Democracy, Capitalism, and Socialism (3-4)

## E. The Integrated Person (3 units)

Integrated person courses are designed to study both processes affecting the individual, such as psychological, social, or physiological changes throughout the human life cycle, and the interactions between the individual and society. Focus is on the integration of disciplinary knowledge and personal experience with an appreciation of the duties and rights of a citizen with a rich public and personal life.
ANTH 318 Human Development: Sex and the Life Cycle (3)
ANTH 340 Living in a Pluralistic World (3)
BIOL 318 The Biology of Aging (3)
CALS 403 Chicano/Latino Youth and Adolescents (3-4)*
EDMS 420 Child Development: Family, School, and Community (3)
GEOG 338 Social Geography (3)
GERN 300 The Journey of Adulthood (3)
GERN 317 Emotions and Adult Life (4)
KIN 217 Personal Fitness and Wellness (3)
KIN 316 Women in Sport: Issues, Images, and Identities (3)
NURS 480 Health, Sexuality, and Society (3)
PSY 302 Development of the Person (3)
SOCI 317 Emotions and Adult Life (4)
WGS 280 Women's Bodies: Health and Image (3)
WGS 285 Men and Masculinity (3)
WGS 350 Gender, Sexuality, and Family (3-4)
\# Indicates laboratory course.

+ Meets Areas B2 or B3 for biology majors, minors, or other majors needing courses for upper-division biology.
* Meets ethnic studies requirement.

Total minimum units in general education: 51 , to include the following:

- Nine upper-division units, taken by choosing upper-division courses in at least two of the four areas (B-E);
- An approved science laboratory; and
- One course in ethnic studies. Ethnic studies courses are indicated with an asterisk (*).


## The Hutchins School Interdisciplinary Option

The lower-division general education requirements can be met by taking the four Hutchins School interdisciplinary seminars of 12 units each and 3 units of mathematics. The seminars are: LIBS 101 The Human Enigma; LIBS 102 In Search of Self; LIBS 201 Exploring the Unknown; and LIBS 202 Challenge and Response in the Modern World. These 48 units are taken Cr/NC. Any additional Cr/NC courses will not count toward the 120 units required for the degree. In addition, 9 units of upper-division general education courses must be completed. The subject matter preparation options (Tracks II and III) in the Hutchins major lead to automatic completion of these 9 units. For students in the interdisciplinary studies option (Track I) in the Hutchins major, 3 of the 9 units will be met with a course from the Core D category. The remaining 6 units must be selected from upper-division courses in areas B-E of the University-wide general
education program.

## Graduate Degrees

Graduate education at Sonoma State University provides opportunities for students to develop the ability to conduct independent study and research and to enhance their professional competence in their field of interest. In order to accommodate students who are unable to pursue graduate work on a full-time basis, many master's programs at the University are scheduled to allow completion of degree requirements on a part-time basis over several semesters.

Descriptions of the following graduate programs are contained in academic department listings:

## Residence Master's Degree Programs

## Biology

Business Administration Counseling

- Marriage and Family Therapy (M.F.T.)
- School Counseling (P.P.S.)

Cultural Resources Management (Anthropology)
Education (six options)

- Curriculum, Teaching, and Learning
- Early Childhood Education
- Educational Leadership
- Reading and Language
- Special Education
- TESOL

English
History
Interdisciplinary Studies

## Kinesiology

Nursing

- Family Nurse Practitioner
- Nursing Leadership and Management

Public Administration

## Special Sessions Master's Degree Program

## Computer and Engineering Science

- Bioengineering

Executive M.B.A.
Interdisciplinary Studies

- Action for a Viable Future

Organization Development
Psychology

- Depth


## Spanish

## Graduate Admission Requirements

Admission requirements and procedures for graduate students are described in the Admissions section in this catalog. Admission to the University with unclassified post-baccalaureate standing does not in any way constitute admission to, or assurance of consideration for
admission to, a graduate degree or credential program. Two admissions procedures are involved in pursuing graduate work at the University: 1) admission to the University; and 2) admission to the department offering the degree or credential program in which the student is interested. Students should, therefore, contact both the relevant department and the Admissions Office, (707) 664-2778.

## Change in Graduate Standing

Many students are admitted to the University in conditionally classified standing with contingencies to remove prior to becoming a classified student. This admission does not guarantee a space in the graduate program. Such a guarantee is obtained by a change in graduate standing to classified status verified by the program in question. Each department has its own procedures for evaluating the appropriateness of granting the student a place in their program. At the time this status is confirmed, a form is filed with the Admissions and Records Office and the Graduate Studies Office confirming the department's approval of this change in status.

## Advancement to Candidacy

Master's degree students are advanced to candidacy when the department has assessed the academic and professional capacities of the student and is convinced that the student has the competence to complete all requirements for the degree, including the culminating project. Advancement to candidacy is done by filing the Advancement to Candidacy form (GS01), which describes the culminating project, is approved by all of the members of the student's thesis committee, and is reviewed by the Vice Provost for Academic Affairs. Culminating projects, including theses, investigative projects, creative projects, and curriculum projects, are approved by the department and reviewed by the Graduate Studies Office prior to clearance for the degree. These projects are then published by the Sonoma State Library and become part of its permanent collection.

## Completion of the Written English Proficiency Requirement

In order to ensure that graduate students possess the ability to communicate effectively in written English, advancement to candidacy will be contingent upon fulfillment of either the Written English Proficiency Test or departmentally administered review procedures that have been approved by the graduate studies subcommittee and placed on file with the Graduate Studies Office.

## General Requirements for the Master's Degree

Master's programs require a minimum of 30 semester units of approved coherent coursework. All courses applied to the program must be completed with an overall GPA of 3.00, and no course for which a final grade below C is assigned may be used to satisfy this requirement. Graduate programs must be completed in no more than 7 years, which is computed as 14 semesters.

## Other University-wide criteria:

1. A classified student must demonstrate, throughout enrollment in the graduate program, the level of competence required to be successful in the completion of the requirements. This
evaluation of competence is primarily the responsibility of faculty actively teaching in the program.
2. Advancement to candidacy is required and should be done when the student enters the final phase of the program. Departments vary in the way they evaluate student competency and in what is required to advance the student to candidacy for the degree.
3. No fewer than one-half of the total units required shall be in graduate (500-level) coursework.
4. At least 21 semester units shall be completed in residence.
5. No more than 6 semester units shall be allowed for a thesis or project.
6. No more than 30 percent of coursework shall be allowed in transfer, including work done through Extended Education.
7. No credit toward a master's degree will be given for student teaching in a credential program.
8. At the discretion of the department, up to one-third of the total program units may be in a nontraditional grading mode (credit/no credit).
9. No classes completed as an undergraduate may be used except those granted provisional graduate credit prior to award of the baccalaureate degree.
10. The candidate must complete a thesis, project, or comprehensive exam as required by the department. Culminating projects that are published by the library require review by the Graduate Studies Office, as well as final approval by the student's faculty committee.
11. A public defense of the thesis or project is required.
12. The student has four semesters to complete the thesis/ project, including the first semester of enrollment for thesis units. The SP (satisfactory progress) grade will remain until the student submits the culminating project. Projects taking more than four semesters to complete will require an approval for extension by the Associate Vice President for Academic Programs or may require reapplication to the program and re-enrollment in the units.

## Continuous Enrollment Policy

Graduate students who have completed their coursework or who have begun to work on their thesis or other final project must be enrolled each additional semester through one of the following mechanisms:

1. Those students who wish to maintain eligibility for financial aid and use the full resources of the University should maintain regular half-time enrollment and pay half-time fees. Graduate programs create enrollment opportunities for these students by providing mechanisms such as sections of 535 (Directed Writing) or 599 (Research and Thesis) in the regular class schedule, or by allowing students to enroll in 595 (Special Studies) through the regular registration procedure.
2. Those students who do not seek the full services of the University may maintain enrollment through Extended Education and pay a continuation fee of $\$ 250$ per semester. The fee maintains their place in their academic program and provides library privileges.
3. With the support of their graduate advisors, those students who, due to extraordinary circumstances, cannot continue work on their programs may seek special consideration by petitioning the Graduate Studies Office for a leave of absence for a defined period of time not to exceed two years. This petition process would not extend the seven-year limitation on coursework applied to the degree.

Students who allow their enrollment to lapse without taking a leave of absence will be considered to have withdrawn from the University and from their degree program. Should such students decide to return, they will be required to apply for readmission and, as a condition of readmission, shall be assessed a continuing enrollment fee of \$250 for every regular semester of the period during which they were absent from the University.

## Provisional Unclassified Graduate Status for Senior Students

Students who plan to complete upper-division or graduate-level courses in their final semester may petition for provisional unclassified graduate credit for such courses. Courses required for the baccalaureate will not be granted this provisional status. The petition must be filed at the same time as the application for award of the degree. Teaching credential candidates should consult the Department of Education about the advisability of such a petition. Provisional unclassified postbaccalaureate credit can be granted only for upper-division and graduate-level courses and will be recorded in the student's academic record as earned prior to the award of the baccalaureate. Such credit is applicable to graduate objectives at the discretion of the relevant academic department. Should requirements for the baccalaureate not be completed by the date specified on the application, the petition for postbaccalaureate credit becomes null and void.

## Courses that may be included in a Master's Program

300-499 Upper-division courses may be acceptable for graduate credit. See Provisional Unclassified Graduate Status for Senior Students, above.

500-599 Graduate courses.

## THE SCHOOLS

## School of Arts and Humanities

## DEAN

William Babula

## SCHOOL OFFICE

Nichols Hall 380
(707) 664-2146

## DEPARTMENTS

American Multicultural Studies
Art and Art History
Chicano and Latino Studies
Communication Studies
English
Modern Languages and Literatures
Hutchins School of Liberal Studies
Music
Philosophy
Theatre and Dance

## PROGRAMS

California Cultural Studies
Film Studies
Jewish Studies
Linguistics
Native American Studies
This diverse school strives to combine education in the arts and humanities with student career goals. In the arts, instructional programs include applied arts, studio art, creative writing, music, dance, technical theatre, and theatre arts. Programs in the humanities include American multicultural studies, art history, California cultural studies, English, French, German, Hebrew, Spanish, communication studies, Chicano and Latino studies, Jewish studies, linguistics, Native American studies, and philosophy. The School of Arts and Humanities also houses the Hutchins School of Liberal Studies and several pre-law programs and provides numerous opportunities for service-learning experiences and internships, as well as study abroad.

The Hutchins School, American Multicultural Studies, and the Department of Chicano and Latino Studies offer subject matter preparation programs for students who intend to enter teaching credential programs and to teach in elementary schools. Several departments and programs, including Art, English, Spanish, Chicano and Latino Studies, and Music, offer subject matter preparation programs that lead to secondary or single subject teaching credential programs. Several of these departments offer either blended or integrated programs that allow incoming first-year students to achieve both a bachelor's degree and a teaching credential in four to four-and-ahalf years. The English Department offers M.A. work in literature, creative writing, and the teaching of writing.

The school also oversees the School of Performing Arts, which
features music and theatre arts departmental productions as well as guest artists in the state-of-the-art Person Theatre; the University Art Gallery, with nationally recognized shows and exhibits; the Sonoma Film Institute; the Writers Lecture Series, which has brought individuals such as Tom Wolfe and Edward Albee to campus; the Arts and Humanities Forum and various lecture series including the Holocaust lecture series and War and Peace; KSUN, the campus radio station; the Sonoma State Star, the student weekly newspaper; SSUTV; Zaum, the campus literary journal; Volt, a nationally distributed literary journal; the Hutchins Center for Interdisciplinary Teaching and Learning; and Project Censored. The world-class Green Music Center with a symphony hall and recital hall is currently near completion.

The school faculty is committed to excellence in teaching and to a strong academic advising program. Special emphasis is given to programs that combine traditional arts and humanities majors with career-oriented minors; such programs include art with business, modern languages with global studies, music with computer theory, American multicultural studies with criminal justice administration and business, philosophy and computer science, among others. In conjunction with the School of Business, we offer a pathway to an M.B.A. Supporting career goals while building upon the arts and humanities, the school provides an education that allows students to develop their ability to think critically and communicate clearly, the best preparation for a challenging technological future in a constantly changing world.

## School of Business and Economics

## DEAN

William Silver
SCHOOL OFFICE
Stevenson Hall 2042
(707) 664-2220

## DEPARTMENTS

Business Administration
Economics
The mission for the School of Business and Economics is to create extraordinary learning experiences for our students and to advance best business practices in the North Bay and beyond. Our vision - to be the educational nucleus for a thriving and collaborative North Bay. Both of these goals shape the experience that students of the School of Business and Economics have. The School has a robust network of support from the regional business community that creates opportunities for our students to meet local leaders, learn with professional mentors, gain experience with internships and apply their learning through community case-studies, conferences and competitions.

Specifically, the School of Business and Economics offers coursework and degree programs that prepare students for professional
careers in business and economics. Students are exposed to alternative viewpoints concerning the analysis of organizational, social, and economic problems, including both quantitative and qualitative approaches. Emphasis is placed upon the role and responsibilities of decision makers within a complex and ever-changing environment including consideration of ethical and globalization issues.

The School of Business and Economics includes the Departments of Business Administration, whose programs are accredited by AACSB, and Economics. Business administration majors benefit from the General Education requirements of the University and then are provided with a broad program of study that involves an integrative set of required core courses and a field of concentration for focus in a subdiscipline, with a choice of electives. Concentrations include accounting, finance, financial management, management, marketing, and wine business strategies. Economics majors receive a firm foundation of undergraduate study in a liberal arts tradition that serves as a sound preparation for graduate school, as well as professional careers in economics. Courses of study in economics include managerial economics, labor and public economics, and international economics.

The undergraduate programs of the School of Business and Economics are intended, principally, for those seeking entry into the professional fields in business and economics. Our small class sizes, quality professors, and desirable location make us an excellent option for those looking to secure a strong foundation in business and economics before entering the business world. Our local network creates bountiful opportunities for students to work and learn in the field at all stages of their studies.

Graduate-level programs of the school develop insights into advanced business theories that can be immediately applied in the workplace. M.B.A. courses provide the graduate with those skills necessary to become an effective leader and manager in today's business environment. Evening classes make an M.B.A. accessible for the working professional. Our M.B.A. with a concentration in Wine Business is the only one of its kind in the United States and offers unique connections to the local industry.

The Executive M.B.A. program is an alternative M.B.A. program designed for those seeking an environment for entrepreneurial and strategic thinking along with greater depth in leadership and global business education. Designed for seasoned professionals with at least five to ten years of work experience, the E.M.B.A. honors family and career with classes scheduled one day a week on alternating Fridays and Saturdays.

Within the School of Business and Economics, several organizations and initiatives exist to promote our students and support the North Bay community and beyond:

- The Wine Business Institute provides world-class, cuttingedge business solutions for the wine industry and is a globally respected resource for knowledge, education, and research within the wine industry. It supports the wine industry by providing relevant and practical research, continuing education courses, and, through the Department of Busi-
ness Administration, both an undergraduate and an M.B.A. program.
- The School of Business and Economics' Career Center offers dedicated career development and job placement services to all of our majors. We have a vibrant mentor and internship program, along with an annual Career EXPO that connects numerous local hiring companies with our students.
- The Center for Regional Economic Analysis provides highquality research, data, and analysis for local industry and governments. The center produces and disseminates new information in the general area of economic research and specific areas of business and economics, local and regional economic development, and fiscal policy.
- The North Bay Economic Outlook Conference is a partnership of representatives from organizations in both the public and private sectors. Each year, the school organizes and conducts this regional conference that examines and analyzes contemporary, critical issues.
- The Financial Literacy Headquarters is an outreach program of the School of Business and Economics' alumni and other Sonoma County organizations, created to educate local community members in the practices of healthy, personal financial management.


## School of Education

## DEAN

Carlos Ayala
SCHOOL OFFICE
Stevenson Hall 1078
(707) 664-3115/2132

## STUDENT SERVICES/CREDENTIALS OFFICE

Stevenson Hall 1078
(707) 664-2832

## DEPARTMENTS

Curriculum Studies and Secondary Education (CSSE)
Stevenson Hall 1078
(707) 664-4203

Educational Leadership and Special Education (ELSE)
Stevenson Hall 1078
(707) 664-4203

Literacy, Elementary, and Early Education (LEEE)
Stevenson Hall 1078
(707) 664-3238

The mission of the School of Education at Sonoma State University is to advance excellence in the education profession through the professional preparation of teachers and educational leaders. Central to this mission is the offering of exemplary professional education programs based on sound theory and practice, current research, sensitivity to the needs of P -12 education, appreciation for
diversity, and respect for all learners. It also includes the School's active role in the social and educational growth of the communities we serve through various partnerships, projects, and initiatives.
Programs in the School of Education prepare graduates for Level I (beginning) and Level II (advanced) teaching credentials in multiple subject (elementary), single subject (middle level/secondary), and special education (Education Specialist, mild/moderate or moderate/severe, communication development). In addition it offers Level I (certificate) and Level II (credential) programs in Reading and Language Arts and the Level I and Level II credentials for Educational Administration. All credential programs are fully accredited by the California Commission on Teacher Credentialing, and the unit is accredited by the National Council for Accreditation of Teacher Education.
The School of Education offers an M.A. degree in Education with concentrations in curriculum, teaching, and learning; early childhood education; educational administration; reading; TESOL (teaching English to speakers of other languages); and special education; and offers a joint Ed.D. in educational leadership in partnership with the University of California, Davis. While School of Education programs are designed primarily for positions in public schools, graduates are prepared to work in non-teaching positions in education or related human service fields in both public and private sectors.
University coursework and field experiences provide rich learning opportunities for our students. In line with our mission of excellence in education, our vision of our graduates is that they:

- Are agents of individual growth and social change as well as models and advocates of the broader intellectual and social values of a democratic society;
- Are knowledgeable and thoughtful about the content and pedagogy in their fields of emphasis;
- Promote social, emotional, and moral growth and learning in their classrooms, schools, and communities;
- Design and engage in inclusive educational practices that respects human differences; and
- Continuously inquire, observe, study and reflect to improve as educators.

Coursework and field experiences in the School of Education emphasize the complex interaction of learning and teaching in the context of the diversity of California schools. Current educational theory and research provide the foundation for course and program offerings, with implications for practice drawn from theory/research and the realities of life in classrooms and schools. All programs provide substantive time for students to student teach, intern teach, or serve as administrative interns in schools. The School of Education works closely with area schools and school districts in a variety of partnerships. School of Education faculty collaborate with faculty in other departments and schools across the University in subject matter preparation, pedagogy, and field experiences. Admissions requirements are informed and regulated by the CSU as well as State and National Accrediting agencies. Prospective students should review the School of Education website regularly for current admissions requirements.

School of Extended Education
DEAN
Mark Merickel

## SCHOOL OFFICE

Stevenson Hall 1012
(707) 664-2394
www.sonoma.edu/exed/
The mission of the School of Extended Education is to support and complement the overarching institutional goals of Sonoma State University. The rapidly changing educational needs of lifelong learners has focused the mission of Extended Education on three critical elements of SSU's future: the development of sustainable infrastructure and relevant inventory of programs that will serve and support the needs of the growing diverse SSU student population; the enhancement of collaborative relationships with the local communities and the surrounding region to foster educational, social, cultural, and economic development; and the generation of revenue sources that will support the academic partners of Extended Education and help mitigate the impacts of the loss of state funding for higher education.

## Professional Certificate Programs

Conflict Resolution
Construction Management
Green Building Professional
Human Resource Management
Patient Navigator
Post-Master's Family Nurse Practitioner
Sustainable Landscape Professional
Sustainable Development and Climate Change
Tasting Room Management

## Special Programs

EXCEL: a program for talented young students grades 4-9
Osher Lifelong Learning Institute (OLLI): a program of intellectually stimulating courses taught by distinguished emeritus faculty and regional experts for people ages 50 or older
Sonoma State American Language Institute (SSALI): an intensive English program which prepares international students and foreign residents for successful academic study and careers
Wine Business Program: a series of professional development short courses pertaining to the wine industry under the auspices of the Wine Business Program in the School of Business and Economics
Educational Travel Programs: "learning vacations" with first-class accommodations, knowledgeable escorts, and local and national guides to destinations such as Italy, China, Greece, Kenya, and Antarctica

## Degree Programs

Liberal Studies B.A. Degree Completion
B.A. Liberal Studies Napa Valley
B.A. Liberal Studies Solano

Interdisciplinary M.A.:

- Action for a Viable Future
- Organization Development
M.A. in Psychology
- Depth Psychology
M.A. in Spanish
M.S. in Computer and Engineering Science

Executive M.B.A.
M.S.W. Social Work

## Continuing Education for the Professions

Coursework is offered each semester that fulfills continuing education requirements for counselors, social workers, nurses, and teachers.

## Summer Session

Summer Session offers University credit coursework that counts toward graduation. In addition to academic courses and certificate program offerings, Summer Session presents a selection of credit and non-credit professional development coursework for educators and mental health clinicians. A special feature is EXCEL, a unique enrichment program for young people in grades 4-9, offering a variety of academic, technical, and creative subjects to augment traditional offerings during the school year.

## January Intersession

Three-week intensive programs during the break between semesters featuring a selection of University courses.

## Open University

Through Open University, also known as concurrent enrollment, students may enroll without formal admission in resident courses offered at the University. Students are encouraged whenever possible to apply for acceptance into the resident program, but Open University may be available to those for whom such enrollment is not possible or appropriate, such as:

- High school juniors and seniors;
- Professionals seeking to upgrade skills, maintain licenses, or make career changes;
- Those with personal interest in a particular subject who have no degree objective; and
- Those interested in exploring college coursework before committing themselves to a degree program.

Registration fees are the same for in-state and out-of-state residents. Up to 24 units of academic credit taken through Open University may be applied toward a bachelor's degree, and up to 9 units may be applied toward a master's degree.

Complete program information is published each semester in the Extended Education catalog and on the Web at www.sonoma.edu/ exed. Free copies, as well as brochures detailing the many specialized programs, are available in the Extended Education office.

## School of Science and Technology

INTERIM DEAN
Lynn Stauffer
SCHOOL OFFICE
Darwin Hall 115
(707) 664-2171
www.sonoma.edu/scitech

## DEPARTMENTS AND PROGRAMS

Biology
Chemistry
Engineering Science
Computer Science
Geology
Kinesiology
Mathematics and Statistics
Nursing
Physics and Astronomy
The curriculum offered in the School of Science and Technology meets the professional needs of students planning a career in natural or physical sciences, mathematics, nursing, kinesiology, engineering and computer science. The school's dedicated faculty and staff of professional scientists, mathematicians and health professionals are proud of the education they provide and of the accomplishments of their students. The school values faculty-student interaction much of which is cultivated in small majors courses and a rich hands-on curriculum.

Graduates of the School of Science and Technology have established excellent records; some have earned national awards, many have earned advanced degrees, and all are poised to meet the workforce needs of our state in science, technology, healthcare, education, engineering, and many other high-demand fields. Students interested in medical, dental, veterinary, and other graduate schools in the health professions may enroll in any of the science departments to complete their undergraduate work. Sonoma State pre-health students' success rates in entering medical schools are well above national averages. The school provides an excellent preparation for future mathematics and science teachers at the elementary and secondary level.

The School of Science and Technology also serves the needs of students in the schools of Arts and Humanities, Social Sciences, Business and Economics, and Education. Students with career goals in fields such as business, management, law, and urban planning may find courses in mathematics, statistics, or computing essential to their future. In addition, the School of Science and Technology offers a rich selection of studies that can enhance a student's entire life. Courses in kinesiology, astronomy, biology, geology, and computer science can provide a basis for lifelong pursuits and enrichment.

The four masters programs in biology, computer and engineering science, kinesiology, and nursing provide graduate students with a wide variety of opportunities ranging from research to clinical
studies. Many of the nursing graduate courses are delivered by distance learning methods and a significant number of scientists and engineers from our local high tech industry participate in exciting graduate and undergraduate research activities in the school.

The School of Science and Technology is home to several respected programs and organizations including the NASA Education and Public Outreach group; the Summer High School Internship Program; the Mathematics, Engineering, Science Achievement (MESA) program and the Lewis Stokes Alliance for Minority Participation program. In collaboration with the School of Education, the Noyce Scholars Program and the Science and Mathematics Teacher Recruitment and Retention Initiative project offer opportunities for students interested in careers as science and math teachers.

Millions of dollars have been invested in the school's laboratories and undergraduate and graduate students use these facilities featuring the newest technological instrumentation to carry out their own experiments on their way to fulfilling their education goals.

## School of Social Sciences

DEAN
Elaine Leeder

## SCHOOL OFFICE

Stevenson Hall 2078
(707) 664-2112

## DEPARTMENTS AND PROGRAMS

Anthropology
Counseling
Criminology and Criminal Justice Studies
Environmental Studies and Planning
Geography and Global Studies
History
Human Development
Liberal Studies (Ukiah)
Political Science
Psychology
Sociology
Women's and Gender Studies
The social sciences are intimately concerned with human behavior in all its complexity and with the many kinds of social relationships that influence us as we grow and change as unique individuals throughout our lives. To comprehend adequately the state of the human condition, the interaction of people and environment - past, present, and future - must be examined. Social scientists are interested in discovering the ways people are affected by their associations with various human groups, both large and small, including the multiplicity of organizations and institutions that characterize modern society. Through the social sciences, the history of social institutions and the continuing process of social change are studied.

The School of Social Sciences at Sonoma State encompasses a particularly interesting combination of departments and programs. A student can choose from a variety of opportunities, ranging from
the core of "traditional" social science fields with an emphasis on applications (anthropology, geography, history, political science, psychology, and sociology), to various cross-disciplinary programs (environmental studies and planning, gerontology, women's and gender studies, and human development), to programs with a professional emphasis (counseling, criminology and criminal justice studies, and public administration).

The school oversees several respected centers and institutes, including the Anthropological Studies Center, the Center for Holocaust and Genocide Studies, The Center for Interdisciplinary Geospatial Analysis (CIGA), the Institute for Community Planning Assistance and the Center for Sustainable Communities. These centers and institutes generate a number of contracts and grants that come to the University and provide many paid student internships in a large variety of funded projects.

Students in the social sciences have opportunities to study with faculty who are working in a wide spectrum of interests, including such areas as human services, demography, multicultural competence, and energy studies.

At Sonoma State, a special working relationship between the liberal arts and sciences and professional social science fields has been developed. The University's goal is to teach students to become sensitive and skilled leaders who will strive toward the achievement of a more enlightened and egalitarian society.

ACADEMIC PROGRAMS

## ACADEMIC PROGRAMS • UNIVERSITY CURRICULA

| Course Numbering System |
| :--- |
| 0-99 No academic credit/prebaccalaureate course. |
| 100-299 Lower division. |
| 300-499 Upper division/may be acceptable for graduate pro |
| For more information, please see the Provisional Unclassified |
| ate Status for Senior Students in the Degree Requirements s |
| 500-599 Graduate courses. |
|  |
| Academic Department Abbreviations and |
| Course Prefixes |


| ENGL | English |
| :--- | :--- |
| ENSP | Environmental Studies and Planning |
| ES | Engineering Science |
| FILM | Film Studies |
| FR | French |
| GEOG | Geography |
| GEOL | Geology |
| GER | German |
| GERN | Gerontology |
| GLBL | Global Studies |
| HD | Human Development |
| HEBR | Hebrew |
| HIST | History |
| ITDS | Special Major/Interdisciplinary Studies |
| JWST | Jewish Studies |
| LIBS | Hutchins School of Liberal Studies |
| KIN | Kinesiology |
| LING | Linguistics |
| MATH | Mathematics |
| MSCES | Computer and Engineering Science (M.S.) |
| MUS | Music |
| NAMS | Native American Studies |
| NURS | Nursing |
| OD | Organization Development |
| PHIL | Philosophy |
| PHYS | Physics |
| POLS | Political Science |
| PORT | Portuguese |
| PSY | Psychology |
| SOCI | Sociology |
| SPAN | Spanish |
| THAR | Theatre Arts |
| UNIV | University Courses |
| WGS | Women's and Gender Studies |
|  |  |

# AMERICAN MULTICULTURAL STUDIES 

DEPARTMENT OFFICE

Nichols Hall 214
(707) 664-2486
www.sonoma.edu/depts/amcs
DEPARTMENT CHAIR
Elenita Strobel
ADMINISTRATIVE COORDINATOR
Perce Smith

## Faculty

Christina Baker / Education; Race and Gender; Mass Media and Society; Race/Ethnicity and Identity

Michael Ezra / African American History \& Culture; 20th Century US History; Race Relations; Sport History; Popular Culture

Elenita Strobel / Transformative Education; Postcolonial Studies; Race, Ethnicity \& Race Relations; Globalization Studies; Language, Culture \& Identity

## Programs Offered

Bachelor of Arts in American Multicultural Studies
Minor in American Multicultural Studies
American Multicultural Studies (AMCS) is devoted to the interdisciplinary study of ethnic and racial minority groups in the United States. A variety of courses focus on the historical, sociological, cultural, and ideological aspects of American ethnicity.

The program is designed to equip students with the knowledge and skills they will need to meet the ongoing challenge of living in a culturally and ethnically diverse society. AMCS students receive basic instruction in how to recognize and engage the underlying assumptions that guide our thinking about race, ethnicity, and multiculturalism. They will explore arts and literature, language, and philosophy. Additionally, they will examine historical, political, social, educational, economic, and cultural developments that affect ethnic and racial minority communities in the United States.
Through a critical study of the significance of the constructions of ethnicity and race in shaping social relationships in the United States, AMCS students are introduced to modes of intercultural learning and understanding that help them to develop the knowledge and sensitivities needed for the enhancement of multicultural communication. By examining the arts, literature, language, and philosophy of ethnic groups, students learn to appreciate the moral and aesthetic values of others. Moreover, through an interdisciplinary approach, they come to a clearer view of the historical importance of ethnic identity in America and to a deeper understanding of the impact ethnic groups have had on America generally, and on social policy, practice, and institutions.

## Careers in American Multicultural Studies

AMCS offers a pathway to the teacher credentialing program.
Students must begin this path during their first or second semester of their freshman year and consult with a faculty advisor in order to ensure that the program requirements can be fulfilled in the appropriate time frame. The faculty advisor to this pathway coordinates with the School of Education and provides guidance to the students so they are prepared and qualified to apply to the teacher credential program after they finish their AMCS degree. They will have the preparation needed to instruct and mentor an increasingly diverse student population.
The major prepares individuals to function effectively in the fields of education, personnel administration, business, law, human resources, public health, public relations, social services, and environmental planning. It provides a sound foundation for graduate work in many traditional disciplines and in emerging multidisciplinary fields of inquiry. The Department of American Multicultural Studies, through its major and minor, has the following goals:

- To equip students with the knowledge, skills, and sensitivity to function effectively in a culturally diverse society;
- To provide knowledge of the contributions that ethnic and racial minorities have made to American society and culture;
- To make students sensitive and aware of the problems and issues facing ethnic and racial minorities;
- To develop within students an appreciation of the richness and diversity of ethnic arts and humanities;
- To develop students' skills in research methods, computer applications, and basic social statistics, thereby enabling students to analyze the problems and issues facing ethnic and racial minorities;
- To develop students' skills in communication, particularly in intercultural settings, and to demonstrate the application of these skills as tools in research, in pedagogy, and in real-life situations;
- To develop a diverse pool of teachers to meet the needs of an increasingly multicultural student population;
- To provide students with research, community internship, and editing/teaching facilitation opportunities focused on ethnic studies, multicultural education, and multicultural studies; and
- To provide the expertise in areas that will allow students to pursue professional and graduate training so they can serve diverse communities, act as a bridge between different cultural groups, and affect constructive social change.


## Bachelor of Arts in American Multicultural Studies

## Admission into the Major

Each student majoring in AMCS is assigned a faculty advisor and consults with the advisor on progress toward the degree. Upon acceptance into the major, a transfer student's records will be reviewed to articulate the courses that are equivalent to those offered within AMCS, CALS, or NAMS at Sonoma State University. A maximum of ten lower-division units may be transferred toward the AMCS major. Upper-division courses from four-year institutions may be transferred above and beyond the ten units of lowerdivision transfer toward the AMCS major, based on advisor approval. Students should use www.assist.org to view official articulation agreements between SSU and other California colleges.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major core requirements | 17 |
| Major electives | 19 |
| General electives | 33 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

Students graduating with a B.A. in American Multicultural Studies must take a minimum of 36 units within AMCS or supporting courses from CALS, NAMS, or related course work in other departments in order to fulfill the requirements of the major. The majority of the courses must be fulfilled within AMCS. Please see the course catalog description for any prerequisites and fulfillment requirements.

## Major Core Requirements

Complete the Following 17 Units:
AMCS 210 Ethnic Groups in America
AMCS 255 Ethnicity in the Humanities
AMCS 350 Ethics, Values, and Multiculturalism
AMCS 395 Community Involvement Program (CIP)
AMCS 480 Research and Methodology

| Total Units In the Major Core | 17 |
| ---: | ---: |
| Total Elective Units | 19 |
| Total Major | 36 |

## CIP/Service Learning

Students are required to complete at least 3 units of credit by being involved in a Community Involvement Program (CIP) or service-learning opportunity. Departmental CIP advisors can provide information to students about service-learning opportunities. Departmental CIP policy is as follows:

1. Students will do 30 hours of community service per unit received. Students may count a maximum of 4 units of CIP credit toward the AMCS major.
2. CIP advisors will request that students get a letter (on official letterhead) from their supervisors indicating their duties and the amount of time worked.
3. Students will submit a journal or a paper, two double-spaced pages per unit of CIP credit received, describing their experiences as a CIP volunteer.
4. Students are expected to keep a log of the dates and times they worked.
5. CIP advisor can give additional assignments if necessary.

## Major Electives and Repeated Courses

Any course within AMCS may serve as an elective course. Students may count one class (up to 4 units) of AMCS 399: Student Instructed Course for major elective credit. Students may repeat courses such as AMCS 470 and AMCS 476 for major elective credit provided that the subject matter varies. Students should check with their advisors or the department chair if they have questions.

## Optional Courses in Related Fields and Departments

A maximum of three classes (up to 12 units) may come from outside AMCS to fulfill the unit requirement of the major. These courses may be taken from CALS, NAMS, WGS, or other departments and programs at Sonoma State University upon consent of the faculty major advisor. Courses in CALS, NAMS, and other academic programs and departments may be considered for elective credit for the degree upon consent of the major advisor, especially for those students pursuing a double major.

## Lower-Division Units

A maximum of ten lower-division units may be used toward the AMCS major.

## Grading Minimums

Students must earn a grade of C- or above to get AMCS major credit. All courses with grades below C- must be retaken in order to be eligible for major credit. Courses must be taken for a grade in order to be eligible for major credit. Courses for major credit may not be taken CR/NC.

## Sample Four-Year Program for Bachelor of Arts in AMCS <br> FRESHMAN YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| ENGL 101 (GE A2) (3) | AMCS 255 (GE C4) (3) |
| PHIL 101 (GE A3) (3) | AMCS 200 (GE A1) (3) |
| Elective (GE B1,C1,C2) (9) | Electives (GE B4, D2, D3) (9) |


| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :---: | :---: |
| AMCS 210 (GE D1) (4) | Elective (GE B3) (3) |
| Elective (GE B2) (3) | Elective (GE D4) (3) |
| Electives (8) | Electives (GE) (9) |
| JUNIOR YEAR:: 30 Units |  |
| Fall Semester (15 Units) | Spring Semester (15 Units) |
| AMCS Elective (4) | AMCS 480 (4) |
| AMCS 350 (C3) (3) | AMCS Electives (8) |
| Electives (GE D5, E) (6) | Elective (3) |
| Electives (2) |  |

## Fall Semester (15 Units)

AMCS 395 (3)
Electives (12)

Spring Semester (15 Units)
AMCS Elective (4)
Electives (11)

## TOTAL SEMESTER UNITS:: 120

## Integrated Program

## Bachelor of Arts / Teaching Certification in AMCS

For admission into the program, please see requirements for admission into the major.

Degree Requirements
General education
Major requirements
Education classes
Total units needed for graduation

Units
51
36
33
120
The Integrated B.A./Credential Program is very unit-intensive. This program may only be completed by students who begin the program during their first or second semester of their freshman year. Students are required to consult with a faculty advisor during their freshman year in order to ensure that the program requirements can be fulfilled in the appropriate time frame. Students must also pass the CBEST/CSET exam in order to gain admission to the credential program.

## Sample Four-Year Program for Multiple Subject Waiver/Certificate Program

FRESHMAN YEAR:: 33 Units

| Fall Semester (17 Units) | Spring Semester (16 Units) |
| :---: | :---: |
| ENGL 101 (3) (GE A2) | AMCS 255 (3) (GE C4) (MAJ) |
| MATH 150 (3) (GE B4) | PHIL 101 (3) (GEA3) |
| AMCS 210 (4) (GE D1) (MAJ) | EDUC 250 (3) |
| BIOL 110 (4) (GE B2) | LING 200 (3) (GE D5) |
| GEOL 107 (3) (GE B1) | CHEM 107 (3) |
|  | EDUC 295 or equivalent (1) (MAJ) |
| SUMMER SESSION: Study for CBEST exam |  |
| SOPHOMORE YEAR:: 33 Units |  |
| Fall Semester (17 Units) | Spring Semester (16 Units) |
| Students apply for admission to credential program |  |
| AMCS 200 (3) (GE A1) (MAJ) | POLS 200 (3) (GE D4) |
| MATH 300A (3) | AMCS 350 (3) (GE C3) (MAJ) |
| HIST 201 (3) (GE D2) | HIST 252 (3) |
| HIST 251 (3) (GE D3) | AMCS 460 (4) (MAJ) |
| THAR 101 (3) | CALS 366 (3) (MAJ) |
| EDUC 295 or AMCS 395 (2) (MAJ) |  |
| JUNIOR YEAR:: 32 Units |  |
| Fall Semester (15 Units) | Spring Semester (17 Units) |
| ANY AMCS 300-level COURSE (3 or 4) | AMCS 445 (3) (MAJ) |
| MATH 300B (3) | AMCS 480 (4) (MAJ) |
| KINS 400 (3) | EDMS 420 (3) (GE E) |
| EDMS 470 (3) (MAJ) | EDUC 417 (3) (GE D1) |
| AMCS 360 (3) (GE C2) (MAJ) | AMCS 431 (4) (MAJ) |
| SENIOR YEAR:: 34 Units |  |

Fall Semester (17 Units)
ART 101 or 202 (3)
Spring Semester (17 Units)

EDMS 463 (3)
EDMS 411 (3)
EDMS 464 (2)
EDMS 475 (3)

EDMS 474 (3)
EDMS 482F (10)

EDMS 471 (2)
EDMS 476F (3)

## TOTAL UNITS FOR BA AND CREDENTIAL:: 131-132

## Notes

1. Students must take the CBEST prior to the beginning of the junior year.
2. Students need to apply for admission to the credential program during November of the sophomore year.
3. Once students enroll in the credential program, they must have an education advisor.

## Minor in American Multicultural Studies

Students must complete 20 units to fulfill requirements for a minor in American Multicultural Studies. Courses graded CR/NC are not applicable to minors awarded by the AMCS Department. Students must receive grades of C - or better to receive minor credit for courses.
Core requirements:
AMCS 210 Ethnic Groups in America 4
AMCS 255 Ethnicity in the Humanities 3
AMCS 350 Ethics, Values, and Multiculturalism 3
Total Units In the Minor Core 10
Minor Electives 10
Total Units In the Minor 20

## ANTHROPOLOGY

DEPARTMENT OFFICE
Stevenson Hall 2054
(707) 664-2312
www.sonoma.edu/anthropology
DEPARTMENT CHAIR
Karin Enstam Jaffe
ADMINISTRATIVE STAFF
Julie Wood, Jill Martin

## Faculty

Alexis T. Boutin / Biological Anthropology
Carolyn Epple / Medical and Cultural Anthropology
Karin Enstam Jaffe / Biological Anthropology
Adrian Praetzellis / Historical Archaeology
Margaret Purser / Historical Archaeology
Richard J. Senghas / Linguistic Anthropology
John D. Wingard / Applied Anthropology

## Programs Offered

Bachelor of Arts in Anthropology
Master of Arts in Cultural Resources Management
Minor in Anthropology
Special Emphasis B.A. in Anthropology
Of all the human sciences, anthropology is the broadest and most holistic. Anthropologists study how human beings have come to be as they are, a physically distinct species, communicating through language, adapted to every habitat on earth, and living an amazing variety of lives. As anthropologists have become increasingly engaged with the contemporary world, they have led in the development of a global focus on how culturally different peoples interact and how humans change their customary ways of life.

Anthropology consists of four subfields:

- Biological Anthropology deals with the evolution of the human body, mind, and behavior as inferred through study of fossils and human remains and comparisons with behavior of other primate species.
- Archaeology examines our past ways of life through the interpretation of material remains, written records, and oral traditions.
- Cultural Anthropology explores the diversity of existing human ways of life, how they work, how they change, and how they interrelate in the modern world.
- Linguistic Anthropology examines the structure and diversity of language and related human communication systems, and how language plays a key role in culture and society.

In addition to the four traditional subfields, some have suggested that Applied Anthropology constitutes a distinct subfield. Applied Anthropology emphasizes how the theories, techniques, and methods of anthropology can be employed to understand and address problems in real world situations.

For the members of the Sonoma State University anthropology faculty, research and teaching are inseparable. The Anthropology Department encourages both graduate and undergraduate students to meet professional standards of achievement in their work and research. The faculty assists students in developing and executing individual research projects. Students often present the results of their work in professional meetings, juried research publications, and public documents.
Through training in anthropology, students learn of many different cultures throughout the world, how they developed, the significance of their differences, and how they change. Students are thus equipped with a broad perspective for viewing both themselves and others.

## Careers in Anthropology

Inevitably, students of anthropology face being asked what they can do with their degrees. For professional anthropologists, many of whom are not academics in universities and research institutions, opportunities for employment in government, in the business world, in education, and in social service are surprisingly diverse. For example:

- Cultural anthropologists are employed in a wide range of settings including government agencies from the local to national levels, international organizations such as the World Bank, non-governmental agencies, private industry, academia, and others. They work on issues including economic development, natural resource management, tourism, environmental preservation, globalization, and many others.
- Archaeologists, while uncovering prehistoric cultivation systems, have suggested how techniques from the past may be re-employed in the present to achieve sustainable agricultural systems. Archaeologists are employed by a host of federal and state agencies charged with locating and preserving sites that contain information about our own prehistoric and historic past.
- Biological anthropologists work in a variety of settings, including medical schools (as anatomists), medical research facilities (as medical geneticists and physiologists), in cultural resources management (as osteologists), in crime laboratories (as forensic anthropologists and expert witnesses), and in zoos and nature conservancies (as keepers and students of primates).
- Linguistic anthropologists are active and helpful in the design, evaluation, and implementation of curricula for teaching languages, whether to linguistic minorities who do not speak dominant languages or to those whose linguistic capacities differ. In Nicaragua, the emergence of a new sign language helps us to understand how innate human predispositions to acquire language combine with social and cultural factors to produce a new sign language used by deaf Nicaraguans.
- Applied anthropologists work for government agencies such as the National Park Service, where their work gives voice to living peoples linked to the parks by tradition, deep historical attachment, subsistence use, or other aspects of their culture; others work for the National Marine Fisheries Service, where they assess the impacts of regulatory policies on fishing communities. Outside government, they work for private firms as in-house experts on social issues of the work place. Cultural anthropologists in many settings contribute to formulating policies, conducting research, and consulting with stakeholder groups.

At a more general level, students of anthropology acquire skill in the formulation of both theoretical and practical questions regarding human life, in collecting and organizing data on many levels of human biology and behavior, and in constructing appropriate interpretations and generalizations based on well thought out procedures. The combination of knowledge about human ways of life and training in analytic skills affords experiences that are crucial to any field dealing with human society and culture. This perspective is invaluable in preparing students for careers either in research professions or in vocations involving human services or planned change. Some of these are cultural resources management, environmental planning, nursing, teaching, public health administration, business, public relations, law, community development, and international service.
The bachelor of arts in anthropology provides a balanced grounding in the theoretical approaches and the body of knowledge central to the discipline of anthropology. The general major may be modified through a special emphasis in the anthropology major, which provides students with an opportunity to design an individualized course of study emphasizing a particular subfield of anthropology. The minor in anthropology recognizes basic training in anthropology as an adjunct to a major in other subjects.
The department also offers a master of arts degree in cultural resources management (CRM). This is a professional field that involves the identification, evaluation, and preservation of cultural resources within legal and planning contexts. The primary objective of the master's program is to produce professionals competent in research design and data collection and analysis, as well as the legal mandates of North American CRM. Program graduates work as historic preservation specialists, environmental planners, and archaeologists for government agencies and as private consultants.

## Anthropology Department Resources

## Anthropological Studies Center

The department's Anthropological Studies Center (ASC) provides students with the opportunity to participate in prehistoric and historical archaeology, geoarchaeology, the conservation and analysis of archaeological materials, local history, and public outreach in the context of grant and contract-aided research projects. The Center has more than 5,000 square feet of archaeological laboratory and curation facilities and is supported by a professional staff. Internships are offered annually.

## Anthropology Laboratory

The department's anthropology laboratory has a computer configured for linguistic applications, including the analysis and transcription of audio and video data. In addition, the department's human skeletal material and fossil cast collections (which include cranial and post-cranial material) are also housed in the anthropology lab and are regularly used in biological anthropology courses. This lab is often used for methods courses.

Other resources include an active Anthropology Club, an anthropology lounge and library, and computer services.

## Anthropology Scholarships

The David Fredrickson Research Grant is a competitive award funded by the staff of the Anthropological Studies Center and is offered annually to graduate students in Cultural Resources Management. Contact the ASC for details. The University offers another anthropology scholarship, the Conni Miller Memorial Scholarship. ASC also funds an annual scholarship in Cultural Resources Management. Contact the Scholarship Office for information.

## Bachelor of Arts in Anthropology

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major core requirements | 37 |
| Major electives | 3 |
| General electives | 29 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

Note: A maximum of 12 transfer units in lower-division courses can be used to complete the 40-unit anthropology major options and advisory plans.

* Students must earn a C- or better in any course applied to the major.


## Major Core Requirements

Complete the following four introductory courses. The introductory course should be completed prior to enrolling in the respective upper division subfield course.

ANTH 200 Introduction to Linguistic Anthropology 3
ANTH 201 Introduction to Biological Anthropology 3
ANTH 202 Introduction to Archaeology
3
ANTH 203 Introduction to Cultural Anthropology 3

## Complete the following synthesis courses during the first year of upperdivision instruction:

ANTH 300 Nature, Culture, and Theory: The Growth of Anthropology
ANTH 342 Organization of Societies ..... 4
come one course from each of the four subfields of anthropology as listed below. At least one subfield course must be a methods course and at least one must not be a methods course. The respective introductory course listed above should be completed prior to enrolling in an upper division course.
Complete one of the following courses in Biological Anthropology*:4
ANTH 301 Human Fossils and Evolution ..... 4
ANTH 302 Biological Basis of Sex Differences ..... 4
ANTH 305 Topics in Biological Anthropology ..... 4
ANTH 412 Human Osteology ..... $4 \ddagger$
ANTH 414 Primate Behavior Laboratory ..... $4 \ddagger$
ANTH 415 Forensic Anthropology Methods ..... $4 \ddagger$
Complete one of the following courses in Archaeology*: ..... 4
ANTH 322 Historical Archaeology ..... 4
ANTH 325 World Prehistory ..... 4
ANTH 326 Topics in Archaeology ..... 4
ANTH 327 Archaeology of North America ..... 4
ANTH 392 Research in California Prehistory ..... 4
ANTH 420/421 Archaeology Methods: Lecture ..... 3
and Archaeology Methods: Laboratory ..... $1 \ddagger$
Complete one of the following courses in Cultural Anthropology*: ..... 4
ANTH 345 Nature and Society: Topics in Anthropology and the Environment ..... 4
ANTH 352 Global Issues ..... 4
ANTH 354 Quest for the Other: Tourism and Culture ..... 4
ANTH 358 Topics in Sociocultural Anthropology ..... 4
ANTH 451 Applied Ethnographic Methods ..... $4 \ddagger$
ANTH 454 Ethnographic Field School ..... $4 \ddagger$
Complete one of the following courses in Linguistic Anthropology*: ..... 4
ANTH 380 Language, Culture, and Society ..... 4
ANTH 382 Language Change ..... 4
ANTH 383 Language in Sociopolitical Context ..... 4
ANTH 384 Topics in Linguistic Anthropology ..... 4
ANTH 386 Sign Languages and Signing Communities ..... 4
ANTH 480 Studies of Language Use ..... $4 \ddagger$Complete the following course the spring semester prior to graduation:
ANTH 491 Senior SeminarTotal Units In Major Core37*At least one such course offered each semester.$\ddagger$ Methods Course

## Major Electives

To complete the 40 -unit requirement for the major, students must choose the remaining units from other anthropology courses. Anthropology units in internship and the community involvement program may be included.

| Total Units In Major Electives | 3 |
| ---: | ---: |
| Total Units In the Major | 40 |

## Sample Four-Year Program for Bachelor of Arts in Anthropology

In this sample study plan, we either recommend specific general education courses or suggest select courses. In the major we require an upper-division (u.d.) course in each of the distinct subfields of anthropology, which are archaeology (AR), biological anthropology (BA), linguistic anthropology (LA), and cultural anthropology (CA). Specific offerings vary each semester; some occur on alternate years. This sequence and selection of specific courses are suggestive; please see your advisor each semester.

FRESHMAN YEAR:: 32 Units

| Fall Semester (16 Units) | Spring Semester (16 Units) |
| :---: | :---: |
| GE (A2) (3) | GE (A3) (3) |
| GE (B3) (4) | GE (D3) (3) |
| GE (C1) (3) | ANTH 201 (B2) (3) |
| ANTH 203 (D1) (3) | University Elective (4) |
| University Elective (3) | University Elective (3) |
| SOPHOMORE YEAR:: 30 Units |  |
| Fall Semester (14 Units) | Spring Semester (16 Units) |
| ANTH 202 (3) | ANTH 200 (3) |
| GE (B1) (3) | ANTH 341 (D2) (3) |
| GE (B4) (4) | GE (D4) (3) |
| GE (C2) (3-4) | GE (C3) (3) |
| GE (D5) (3) | University Elective (4) |
| JUNIOR YEAR:: 30 Units |  |
| Fall Semester (15 Units) | Spring Semester (15 Units) |
| ANTH 300 (4) | ANTH 342 (4) |
| U.D. ANTH AR/BA/LA/CA (4) | U.D. ANTH AR/BA/LA/CA (4) |
| U.D. ANTH AR/BA/LA/CA (4) | U.D. ANTH AR/BA/LA/CA (4) |
| U.D. GE (3) | U.D. GE (3) |
| SENIOR YEAR:: Minimum of 29 Units |  |
| Fall Semester (15-23 Units) | Spring Semester (14-16 Units) |
| U.D. GE (3-4) | ANTH Elective (4) |
| ANTH Electives (4) | ANTH Elective (4) |
| ANTH Special Studies (1-4) | ANTH Elective (4) |
| ANTH Internship (1-3) | ANTH 491 (1) |
| University Elective (3-4) | ANTH Special Studies/Internship (1-2) |
| University Elective (3) |  |

TOTAL UNITS:: 120

## Bachelor of Arts in Anthropology with a Special Emphasis

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major core requirements | 19 |
| Special emphasis courses | $12-18$ |
| Supporting courses | $3-9$ |
| General electives | $38-53$ |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

The special emphasis B.A. in anthropology is designed for students whose academic and/or professional aims are not satisfied by the department's existing degree program. The purpose of the special emphasis major is to provide students with an opportunity to design, in consultation with an advisor, an individualized course of study emphasizing a particular subfield of anthropology, leading to a bachelor of arts degree. In this respect, the program provides students with the option to pursue special intellectual directions in anthropology and to respond to career and employment potentialities.

For example, such directions include linguistic anthropology, applied economic and ecological anthropology, prehistory, forensic anthropology, human biology, and primate behavior. The special emphasis major consists of 40 units selected from three course areas: 19 units in core courses, 12 to 18 units in special emphasis courses, and 3 to 9 units in supporting courses. All courses are selected in consultation with and approved by a faculty advisor.

## Procedures

Students should carefully review their reasons for pursuing the special emphasis major, identify a special interest, and make a tentative selection of courses (application forms are available from the department office). Students should then select appropriate advisors, who will review the proposed program. Upon approval by the advisor, the program will be submitted to the department for action. Special Emphasis Proposals must be submitted to the department for approval prior to the student's senior year. Consultation with the faculty advisor is mandatory. Any changes to an authorized course of study must meet with the advisor's approval.

## Course Requirements

Requirements consist of:

- Core courses;
- Special emphasis courses within anthropology; and
- Supporting courses from outside anthropology.


## Core Courses (15 Units)

Two of the Following Introductory Courses: (6 Units)
ANTH 200 Introduction to Linguistic Anthropology 3
ANTH 201 Introduction to Biological Anthropology 3
ANTH 202 Introduction to Archaeology 3
ANTH 203 Introduction to Cultural Anthropology 3

History and Theory (4 units)
ANTH 300 Nature, Culture, and Theory: The Growth of Anthropology
Cultural Analysis and Theory (4 units)
ANTH 342 Organization of Societies
Senior Seminar (1 unit)
ANTH 491 Senior Seminar

## Special Emphasis Courses (12 Units Minimum)

The special emphasis component of the anthropology major must include a minimum of 12 units of special emphasis anthropology courses.

Supporting Courses (3 Units Minimum)
The supporting course component of the anthropology major must include a minimum of 3 units of courses taken outside the major.

## Minor in Anthropology

The anthropology minor consists of 20 units chosen by the student in consultation with a faculty advisor. Students must earn a C- or better in any course applied to the minor.

## Master of Arts in Cultural Resources Management

The master of arts in Cultural Resources Management (CRM) involves the identification, evaluation, and preservation of cultural resources, as mandated by cultural resources legislation and guided by scientific standards within the planning process. A goal of the master's program in Cultural Resources Management is to produce professionals who are competent in the methods and techniques appropriate for filling cultural resources management and related positions, and who have the theoretical background necessary for research design, and data collection and analysis.

Persons with an M.A. in CRM will be qualified to hold positions within the United States and its territories. Some individuals will also be qualified to serve outside of the United States in an advisory capacity in establishing and managing cultural resources management programs within environmental protection and preservation contexts of other nations.
The CRM program emphasizes:

1. Experience in developing projects and programs in cultural resources management;
2. Experience in conducting analyses of archaeological, osteological, linguistic, and sociocultural data for purposes of assisting public and private sectors in the implementation of environmental protection and historic preservation legislation;
3. Training in the professional traditions of inquiry within anthropology and history to enable the student to assess the research significance of archaeological and ethnohistoric resources;
4. Experience with anthropological techniques of field and laboratory analysis, and archival and museum preparation; and
5. Experience with existing cultural resources management data-keeping facilities.

Students in the program, under the supervision of a primary faculty advisor, develop a plan of study and thesis project that reflects their special interest in cultural resources management. In addition, students are encouraged to present the results of their work and research in professional meetings, research publications, and public documents.

## Facilities and Faculty

The department's Anthropological Studies Center houses an archaeology laboratory and a cultural resources management facility. ASC maintains collections of artifacts, archaeological site records and maps, photographs, manuscripts and tapes, and a specialized research library. The Anthropological Studies Center website can be found at www.sonoma.edu/projects/asc/. The Northwest Information Center, an adjunct of the State Office of Historic Preservation, manages historical records, resources, reports, and maps; supplies historical resources information to the private and public sectors; and compiles and provides a referral list of qualified historical resources consultants. In addition to archaeologists and other anthropologists, participating faculty in the CRM program include historians, biologists, geographers, soil scientists, and geologists.

## Requirements for the Degree

The design of the course of study as a 2 and a 1/2-year program presumes that students are full-time and not working. Experience with the program so far indicates that working students cannot successfully carry full graduate loads; consequently, it takes three years or more for working students to complete our program of study. Departmental policy stipulates that no more than 10 units of the 30 unit program may be revalidated beyond the 7-year limit defined by the CSU.

| ANTH 500 Proseminar | 4 |
| :--- | ---: |
| HIST 472 California History I | 4 |
| ANTH 502 Archaeology: History and Theory | 3 |
| ANTH 503 Seminar in Cultural Resources |  |
| $\quad$ Management | 3 |
| ANTH 592 Practicum in National Register |  |
| $\quad$ of Historic Places | 2 |
| ANTH 596/597 Internships* | 3 |
| ANTH 599A/B Thesis | 4 |
| Supporting Courses | 7 |
| Total units in the CRM degree | 30 |

*Internships are decided upon by discussion between the student and his or her advisor. Students will normally take both on-campus and off-campus internships. On-campus internships are available at the Cultural Resources Facility, the Interpretive and Outreach Services Office, the Northwest Information Center, and the Archaeological Collections Facility and Ethnography Lab. Off-campus agencies include the State Office of Historic Preservation, the National Park Service, the Sonoma County Museum, and many others.

## Admission to the Program

Applications must be submitted separately in the fall to the Anthropology Department and to the Office of Admissions and Records for possible acceptance into the program the following academic year. Consult with
the program's graduate coordinator for departmental requirements and submissions, as updated in the fact sheet Admission to the Cultural Resources Management Program in Conditionally Classified Status (available on the department website). While archaeology is a focus, the program emphasizes CRM as an interdisciplinary profession. Students with degrees in history, geography, and planning, as well as anthropology, are frequently accepted.

## APPLIED ARTS

PROGRAM ADVISORS AND OFFICES
Jeff Langley / Performing Arts
Ives Hall 207
(707) 664-4404

Tim Wandling / English Department
Nichols Hall 362
(707) 664-2140

Gregory Roberts / Department of Art and Art History
Art Building 128
(707) 664-2364

## Program Offered

Minor in Applied Arts
The applied arts curriculum provides practical and theoretical training in at least three of the following arts areas: art, English (with an emphasis on creative writing), music, and theatre arts (drama and/ or dance). The minor is intended for students interested in acquiring a broad background in the arts, but is particularly appropriate for liberal studies majors who intend to complete the Multiple Subject Credential Program. The applied arts minor provides these students with practical skills appropriate to their future work as classroom teachers at the elementary grade level.

## Minor in Applied Arts

The minor in applied arts consists of 18 units. At least 6 of these units must be upper division. To fulfill the minor, students are expected to complete 9 units of activity courses (3 units in each of three fields selected from art, English, music, and theatre arts), as well as a concentration consisting of 9 additional units in one of three fields.

## Activity Courses

Select three fields from the following four (art, English, music, and theatre arts) and complete 3 units in each field selected.

## Art

ARTS 202-298 (Any beginning-level faculty-instructed studio course)

## English

ENGL 342 Children's Literature

One literary genre course selected from the following:
ENGL 367 Introduction to Short Story
ENGL 369 Introduction to Poetry
ENGL 371 Introduction to Novel
ENGL 373 Introduction to Drama

## Music

MUS 105 Music Theory for Non-Majors 3
Any combination of the following, to total 3 units:
MUS 325 SSU Chorus (1). May be repeated for credit.
MUS 327 Symphonic Wind Ensemble (1) May be repeated for credit
MUS 400 Music for the Classroom (2)
MUS 115/415 Voice Methods (1)
MUS 118/418 Guitar Methods (1)

## Theatre Arts

THAR 101 Making Theatre 3
THAR 300 Theatre in Action 3
THAR 460 Drama for Children 2 and
THAR 120 Acting: Fundamentals 2
THAR 470 Dance for Children 2 and
THAR 110 Dance Fundamentals 1
Total units in activity courses

## Concentration Courses

To earn the minor in Applied Arts, students must also complete a 9-unit concentration in one of the three fields previously selected. The following are concentration courses:

## Art

ARTS 400 Art in the Classroom 3
ARTH 210 or 211 Introduction to Art History 3
ARTS Additional activity courses 3

## English

Any three upper-division creative writing courses, including at least two genres, and ENGL 342 if not taken previously.

## Music

MUS 105 Music Theory for Non-Majors

## One of the following

MUS 150 Survey of US Music 3
MUS 250 Survey of Western Music 3
MUS 350 Survey of World Music 3
3 units of the following (each may be repeated for credit)
MUS 323 Chamber Singers ..... 1
MUS 324 Sonoma County Bach Choir ..... 1
MUS 325 SSU Chorus ..... 1
MUS 326 Classical Guitar Ensemble ..... 1
MUS 327 Symphonic Wind Ensembles ..... 1
MUS 329 Chamber Music Ensembles ..... 1
MUS 330 Music Theatre Production ..... 1-3
MUS 379 Contemporary Jazz Ensemble ..... 1
MUS 391 Concert Jazz Ensemble

## Theatre Arts

THAR 102 Introduction to the History of Drama and Dance: Origins to 18003
THAR 103 Introduction to the History of Drama and Dance: 1800 to the Present 3
THAR 300 Theatre in Action 3
THAR 301 Dance Ensemble 3
THAR 302 Drama Ensemble Workshop 3
THAR 110 Dance Fundamentals 1
THAR An appropriate selection of technique courses chosen in
consultation with an advisor
Total units in concentration 9
Total units in minor 18
Students embarking on the applied arts minor are expected to develop and file a contract indicating the courses they wish to take to fulfill the minor. Certain course substitutions to the above-stated requirements may be allowed with sufficient justification and approval of the student's advisor and department chair, both of whom will be members of the department of the student's concentration.

## ART AND ART HISTORY

DEPARTMENT OFFICE
Art Building 128
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www.sonoma.edu/art/
DEPARTMENT CHAIR
Gregory Roberts
ADMINISTRATIVE COORDINATOR
Cindy Menghini

## Faculty

Stephen Galloway
Nathan Haenlein
Kurt Kemp
Susan Moulton
Jann Nunn
Mark Perlman
Jennifer Roberson
Gregory Roberts
Michael Schwager
Jennifer Shaw
Carlos M. de Villasante

## Programs Offered

Bachelor of Arts in Art History<br>Bachelor of Arts in Art: Studio Concentration<br>Bachelor of Fine Arts: Studio Concentration<br>Minor in Art<br>Studio concentration<br>Art History concentration

Minor in Film Studies (see: Film Studies Minor elsewhere in this catalog)

Career Minor in Arts Management
Teaching Credential Preparation
Master of Arts through Interdisciplinary Studies
Majors pursue studies leading to the bachelor of arts degree in art history or the bachelor of arts degree in art with a studio concentration. Within the art studio concentration emphases are available in painting, printmaking, photography, works on paper, sculpture, and ceramics. Minors in art history, film studies, studio art, and arts management are also available. A program for students working toward a teaching credential is included within the curriculum and available through the Education Department. Several art and film history courses meet general education requirements.

Designed specifically for the pursuit of studio art practices and the study of art history and arts management, the department
facilities are located in one of the best equipped physical plants in the country. The programs are directed by a faculty of professional artists and scholars dedicated to their students and to the pursuit of their own creative and scholarly work. Students also have access to developing new technologies in a number of areas.

It is the departmental philosophy that a grasp of the history and theory of art is indispensable for the studio major and that creative activity is invaluable to the student of art history.

Art history is an interdisciplinary major within the department, with a core of period and survey courses that provide an integrative investigation of art and culture using both traditional and new approaches and technologies. The curriculum provides a broad overview of Western art, Asian art, and other art outside the European tradition. Our core is enhanced by periodic offerings of specialized upperdivision classes that have included in-depth studies of artists, themes, and post-modern theory, and of current issues, such as gender and multiculturalism. As a demonstration of mastery of skills and knowledge in the field, art history requires students to write a senior thesis, which indicates original research or interpretation. With prior approval from the faculty, students may write a more elaborate honors thesis in place of the senior thesis. Reading competency in a foreign language is required for admission to most graduate programs.

The art studio curriculum is designed to develop the ability to create, analyze, interpret, and evaluate art. Students learn to express their concepts in a variety of visual forms. The department strives to stimulate creativity and competency as students develop their skills and knowledge of materials and technologies. Fundamental to the study of art is a belief in its potential to communicate ideas, emotions, and values necessary for understanding and functioning effectively within the contemporary world. Faculty are committed to the recognition of individuality and unique accomplishment. They work closely with each student to encourage personal direction and ideas.

Students in the Bachelor of Art: Studio Art who desire a more in-depth, professionally directed preparation in studio art may apply the Bachelor of Fine Art (BFA) degree in studio art. This more intensive degree program is open to students through competitive application, usually during the junior year. Please see your advisor for details regarding the application process.

The University is a fully accredited member of the National Association of Schools of Art and Design.
Upon successful application to the University, students wanting to major in art or art history may choose one of the following areas:

## Art History - Courses In Western And Non-Western Art

Art history, including courses in gallery and museum studies

## Art Studio (Areas Of Emphasis Below)

Ceramics
Painting
Photography
Printmaking

## Sculpture

Works on paper

## Bachelor of Fine Arts (Areas Of Emphasis Below)

Painting
Photography
Printmaking
Sculpture
Entering freshmen or lower-division transfer students will be accepted by the University in the status of art majors or art history majors in the B.A. program. Upper-division transfer students who have fulfilled requirements equivalent to those for lower-division art majors at Sonoma State University will be accepted as art or art history majors in the B.A. program.

Courses for the majors cannot be taken for $\mathrm{Cr} / \mathrm{NC}$. A maximum of three courses may be challenged for credit toward the major: two lower-division and one upper-division. Most studio courses require payment of lab fees at time of class registration.

## Careers in Art and Art History

Whether in art history, art studio, or gallery and museum management, programs in the Department of Art and Art History are committed to academic excellence and the acquisition of skills of visual analysis and synthesis. We offer basic skills and access to new technologies as sound preparation for graduate study and teaching, as well as for professional careers in the arts. In addition, as preparation for entering a diversity of related fields, students may combine knowledge of the arts with expertise in a second area, such as business, film and television; or museum, gallery or archival management. Consult a department advisor for specific advice about career planning.

## Advising

Students are required to consult their advisors in the department before beginning work as an art studio or art history major and each semester thereafter. Not all courses are offered every semester. Consultation with an art advisor will allow for timely completion of art or art history major requirements. An advising handbook is available through the department's website:
www. sonoma.edu/art/advising

## Bachelor of Arts in Art History

Many of the courses required for the degree have prerequisites. Consult course descriptions for details.

## Degree Requirements

General education
Units

Major core requirements 43
General electives 26
Total units needed for graduation 120
Note: Although the Department of Art and Art History does not specify a unit requirement, reading comprehension of at least one foreign language is considered essential for students who plan to pursue master's or doctoral degrees in the field of art history. Such students are advised to develop competence in French, German, Italian, and/or Spanish;
however, the prospect of eventual specialization may make other languages advisable in particular instances. Art history majors are required to write at least two papers in upper-division courses before being admitted to the proseminar (490H).

## Requirements for the Major

Foundation Courses / Freshman And Sophomore Years (12 Units)
Art History (6 lower-division units)
ARTH 210 Introduction to Art History, Ancient to Medieval 3-4
ARTH 211 Introduction to Art History, Renaissance to Modern 3-4
Studio Courses (5 lower-division units)
ARTS 101 or 102, Fundamentals. In addition, one course in drawing, a beginning course in any medium, or a second Fundamentals course.

## Minimum total lower-division units

## Core Courses / Junior And Senior Years (15-20 Units)

Period Courses: Students must complete requirements $A, B$, and $C$
A) One upper-division course from three of the five categories listed below (three courses total):

## Ancient

Medieval
Renaissance/Baroque
18th through 19th Centuries
History of Photography
B) Modern/Contemporary: one upper-division course required
C) Non-Western: One upper- or lower-division course required

## Recommended Electives For All Art History Majors (7-12 Units)

In consultation with the advisor, the art history major will choose additional upper-division courses from any of the following:

1. $A, B$ and $C$ above; and Gallery and Museum Methods (ARTH 494).
2. Special topic courses (ARTH 480).
3. Course in a related field outside the Art Department with approval of the faculty and the department chair. Students with a special interest in film should choose the film emphasis, which has specific requirements (please see film history emphasis).

## Capstone Experience (4-5 Units)

All students must complete a senior project consisting of the following:
A. ARTH 490H Pro-Seminar on Art Historical Method (3 units). Students must complete two papers in upper-division courses before being admitted to the pro-seminar.
B. Senior Thesis: With prior approval, students may write a scholarly paper overseen by two art history faculty. The student receives assistance in preparing this paper by enrolling in one of the following courses:

1. ARTH 491H Senior Thesis (1 unit). Student must enroll with two different advisors.
2. ARTH 492 Honors Thesis ( 2 units), by consent of art history faculty. Student must enroll with two different advisors.

## Total upper-division units

Total units in the major

| Sample Four-Year Program for Bachelor of Arts in Art History |  |
| :---: | :---: |
| FRESHMAN YEAR:: 31 Units |  |
| Fall Semester (16 Units) | Spring Semester (15 Units) |
| ARTH 210 (3-4)* | ARTH 211 (3-4)* |
| ARTS 101 or 102 (3) | Any beginning Art Studio Course (2) |
| GE courses (6), Elective (3) | GE courses (9) |
| SOPHOMORE YEAR:: 32 Units |  |
| Fall Semester (16 Units) | Spring Semester (16 Units) |
| Upper-Division ARTH Period Course (3-4) | ARTH Non-Western (3-4) |
| GE courses (12) | GE courses (12) |
| JUNIOR YEAR:: 29 Units |  |
| Fall Semester (15 Units) | Spring Semester (14 Units) |
| Upper-Div. ARTH Period Course (3-4)* | Upper-Div. ARTH Period Course (3-4) |
| Upper ARTH Period Course (3-4) | Upper-Division ARTH Elective (3-4) |
| Upper-Division GE (4) | Upper-Division GE (4) |
| Upper-Division ARTH Special Topic (1-4) | Electives (3-4) |
| Elective (2-4) |  |

## SENIOR YEAR:: 28 Units

| Fall Semester (14 Units) | Spring Semester (14 Units) |
| :---: | :---: |
| ARTH 490H (3-4) | ARTH 491H or 492 (Advisor \#1) (1-2) |
| Upper-Division ARTH Elective (3-4) | ARTH 491H or 492 (Advisor \#2) (1-2) |
| Upper-Division ARTH Elective (3-4) | Upper-Division ARTH Elective (3-4) |
| Other Electives (3-4) | Upper-Division ARTH Elective (3-4) <br> Other Electives or Internships (5) |

* also counts for GE requirements


## Minor in Art History

## Complete All Of the Following

| ARTS 101-245 Any beginning studio course | $2-3$ |
| :--- | ---: |
| ARTH 210 Introduction to Art History | $3-4$ |
| ARTH 211 Introduction to Art History | $3-4$ |
| ARTH Upper-division courses (except modern) | 8 |
| ARTH Upper-division modern or non-Western course | $3-4$ |
| Total units needed for the minor |  |

## Recommended Electives for Art History Minors

Upper-division art history or criticism courses.

## Minor in Film Studies

Please see Film Studies section for a description of the film studies minor program, elsewhere in this catalog.

## Course Rotation: Art History

## Foundation Courses

Introductory Surveys $(210,211)$
All semesters

## Period Courses

Ancient, Medieval, Renaissance, Baroque/Early Modern (420, 422, 424, 430, 432, 440, 442, 444, 450, 454)
Film courses $(361,363)$
All semesters
Modern: Two courses (460, 464, 465, 466)
Non-Western: One course (470, 474, 476)
Every year, usually each semester
Gallery and Museum Methods (494)
Fall semesters
Pro-Seminar in Methods (490H)
Fall semesters
Senior Thesis (by approval) All semesters
Note: Additional period courses and special topic courses will be offered each academic year to enable students to enrich their areas of interest and specialization.

## Bachelor of Arts in Art: Studio Concentration

Many of the courses required for the degree have prerequisites. Please consult course descriptions for details.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | 45 |
| General electives | 24 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Requirements for the Major

The art major with studio concentration is comprised of a group of core courses representing minimum requirements for all areas of emphasis, plus course offerings in studio and associated areas that allow for the development of an emphasis in one or more of the following: painting, sculpture, printmaking, works on paper, photography, and ceramics. Six units must be at the advanced (400) level.
Major Core Requirements
Complete the following four courses for 12 units:
ARTS 101 Art Fundamentals ..... 3
ARTS 102 Art Fundamentals ..... 3
ARTH 210 Introduction to Art History ..... 3-4
ARTH 211 Introduction to Art History ..... 3-4 ..... 2
ARTS 204 Beginning Life Drawing ..... 2
Choose at least three of the following studio courses to total a minimum of 6units; at least one course must be taken in a 2-D medium and a 3-D medium: 6-9

ARTS 208 Basic Black and White Photography 2-4
ARTS 210 Introduction to Digital Imaging
ARTS 220 Beginning Painting2-3
ARTS 229 Beginning Ceramics ..... 2-3
ARTS 236 Beginning Sculpture ..... 2-3
ARTS 245 Beginning Printmaking ..... 2-3
ARTS 298 Selected Topics in Art Studio ..... 1-4
Total lower-division core units ..... 22
Complete 5 units of upper-division studio coursework outside of emphasis area. At least two units must be taken from the list below: 5
ARTS 302 Intermediate Drawing
2-4
ARTS 304 Intermediate Life Drawing 2-4
ARTS 402 Advanced Drawing
ARTS 404 Advanced Life Drawing
2-4
2-4
Choose two courses from the following five courses to total 6 units. 6
ARTH 454 Nineteenth Century Art
ARTH 460 History of American Art
ARTH 464 Modern Art from 1850 to 1945
ARTH 465 Modern Art from 1945 to 1979
ARTH 466 Contemporary Art
Total upper-division core units

## Areas of Emphasis

To complete a specialized concentration in the major, select a minimum of 12 units from one of the areas of emphasis below. (When works on paper is the student's area of emphasis, the 5 upperdivision units required in drawing must be concentrated instead in another emphasis, such as painting, printmaking, sculpture, photography, or ceramics.) At least 6 units must be at the advanced level. Painting (12) $\quad$ Printmaking (12) Works on Paper (12) Sculpture (12) Photography (12) Ceramics (12)
Specific content of concentrations is detailed below.

## Total units in major emphasis

Total units in the major

## Painting Emphasis

Complete 12 units of the following two courses (including repeats); 6 units must be at advanced level:
ARTS 320 Intermediate Painting
ARTS 420 Advanced Painting
A maximum of 3 units may be applied from one or more of the following:
ARTS 382 Intermediate Monoprint
ARTS 482 Advanced Monoprint

## Sculpture Emphasis

Complete 12 units of the following two courses (including repeats); 6 units must be at advanced level:
ARTS 336 Intermediate Sculpture
ARTS 436 Advanced Sculpture
A maximum of 3 units from the following may be applied to the 12-unit Sculpture Emphasis:
ARTS 335 Intermediate Bronze Foundry
ARTS 435 Advanced Bronze Foundry
ARTS 329 Intermediate Ceramics
ARTS 429 Advanced Ceramics
ARTS 430 Large Scale Clay and Installation, Ceramics Sculpture
Ceramics Emphasis
Complete 12 units of the following four courses (including repeats); 6 units must be at advanced level: ..... 3
ARTS 329 Intermediate Ceramics ..... 2-4
ARTS 429 Advanced Ceramics ..... 2-4
ARTS 430 Large Scale Clay and Installation, Ceramics Sculpture ..... 2-4
ARTS 432 Ceramic Materials ..... 2-4
A maximum of 3 units from the following may be applied to the 12-unit Ceramics Emphasis: ..... 3
ARTS 336 Intermediate Sculpture ..... 2-4
ARTS 436 Advanced Sculpture ..... 2-4
ARTS 335 Intermediate Bronze Foundry ..... 2-4
ARTS 435 Advanced Bronze Foundry ..... 2-4
Printmaking Emphasis
Complete 9-12 units of the following four courses (including repeats); 6 units must be at the advanced level: ..... 9-12
ARTS 340 Intermediate Etching and Woodcut ..... 2-4
ARTS 440 Advanced Etching and Woodcut ..... 2-4
ARTS 342 Intermediate Lithography ..... 2-4
ARTS 442 Advanced Lithography ..... 2-4
A maximum of 3 units may be applied from the following: ..... 0-3
ARTS 382 Intermediate Monoprint ..... 1-4
ARTS 482 Advanced Monoprint ..... 1-4

## Works On Paper Emphasis

When drawing is the student's area of emphasis, the 5 upperdivision units required in drawing must be concentrated instead in another emphasis, such as painting, printmaking, sculpture, photography, or ceramics. Advanced courses may be repeated for credit.Choose a total of 12 units from the following four courses(including repeats); 6 units must be at the advanced level:12
ARTS 302 Intermediate Drawing ..... 2-4
ARTS 402 Advanced Drawing ..... 2-4
ARTS 304 Intermediate Life Drawing ..... 2-4
ARTS 404 Advanced Life Drawing ..... 2-4
Photography Emphasis
Complete 12 units of the following two courses
(including repeats); 6 units must be at the advanced level: ..... 12
ARTS 308 Photographic Darkroom Processes ..... 2-4
ARTS 457 Advanced Photography ..... 1-4
Recommended Electives For All Studio Majors
ARTS 492 B.A. Professional Artists' Practices ..... 1-3
ARTH 420-476 Art History Period Courses ..... 3-4 each
ARTH 466 Contemporary Art ..... 3
ARTH 480 Selected Topics and Lecture/Seminar ..... 1-4
ARTH 494 Gallery and Museum Methods ..... 4
ARTS 382 Intermediate Monoprint ..... 1-4
ARTS 482 Advanced Monoprint ..... 1-4
ARTS 491 Visiting Artists' Lecture Series ..... 1
ARTS 498 Selected Topics - Studio ..... 1-4

## Course Rotation: Art Studio

## Foundation Courses:

Art Fundamentals (101 and 102)
Safety and Shop Practices (103)

## Beginning Studio Courses:

All courses (202, 204, 208, 220, 229, 236, 245)

Every year; most every semester.
Intermediate/Advanced Studio Courses:
All courses (302, 304, 308, 320,329, 335, 336,
340, 342, 382, 402,404, 420, 429, 430, 432,
435, 436,440, 442, 482)
Every year; most every semester.
B.F.A. Seminar (465)

1 unit fall, 2 units spring
Professional Practices - B.F.A.
\& B.A. (466/492)
Directed Field Research Experience (496)
Fall semesters

Note: Additional special topics courses will be offered each academic year to enrich and expand on the Studio curriculum.

| Sample Four-Year Program for Bachelor of Arts in Art |  |
| :---: | :---: |
| Studio Concentration, Painting Emphasis |  |
| FRESHMAN YEAR:: 30 Units |  |
| Fall Semester (15 Units) | Spring Semester (15 Units) |
| ARTS 101 2-D Fundamentals (3) | ARTS 102 3-D Fundamentals (3) |
| ARTH 210 Art History (3)* | ARTH 211 Art History (3) |
| GE courses (9) | GE courses (9) |
| SOPHOMORE YEAR:: 30 Units |  |

Fall Semester (14 Units)
Spring Semester (16 Units)
ARTS 202 Beg. Drawing (2)
ARTS 204 Beg. Life Drawing (2)
Lower-Division Studio course (3) Lower-Division Studio course (2)
GE courses (9) GE courses (12)

JUNIOR YEAR:: 30 Units

## Fall Semester (15 Units)

Upper-Div. studio emphasis (3)
ARTS 302 Int. Drawing (3)
ARTH 465 History of Mod. Art (3)*
GE courses (9)

* also counts for GE requirements

SENIOR YEAR:: 30 Units
Fall Semester (15 Units)
Spring Semester (15 Units)
Upper-Div. studio emphasis (3) Upper-Div. studio emphasis (3)
ARTH 466 Contemporary Art (3)
Art Electives (6)
General Electives (3)

Spring Semester (15 Units)
Upper-Div. studio emphasis (3) Upper-Div. studio elective (3)
Upper-Div. studio course (3)
GE courses (6) Art Electives (6) General Electives (6)

TOTAL UNITS:: 120

## Bachelor of Fine Arts

The B.F.A. degree is a 132 -unit program requiring 70 units of course work in art. The B.F.A. Degree differs from the B.A. degree in its requirements and rigor. The B.F.A. is often considered to be the degree of choice for students wishing to pursue graduate or professional studies. It enhances the artists' opportunities to perform at a higher level and fulfills the need for additional artistic growth in an intensive studio situation. The B.F.A. affords time for concentrated work within a specific art emphasis (painting, photography, printmaking, or sculpture).

## Admission Requirements

Students may apply only during or after the spring semester of the sophomore year. Thereafter students may reapply as many times as desired. It is recommended that students work with their advisors to complete the application process. Applicants must meet University requirements for admission and must first be admitted to the bachelor of arts program. In addition, they must meet the following requirements to qualify for application to the program:

1. Students must complete all lower-division requirements in art; take lower-division courses before upper-division courses in area of emphasis; take Fundamentals 101/102, or equivalents, before any upper-division art course and before most lower-division art courses; maintain a 3.00 GPA in art, exclusive of GE courses; and complete all lower-division GE requirements by the end of the junior year.
2. To be considered for the B.F.A. admission review, applicants must submit a portfolio of digital images of their artwork, two letters of recommendation (or two department faculty signatures if currently enrolled as a student), and a short statement including their reasons for applying. These will be reviewed and the candidates may be interviewed by the studio faculty to help determine if their work demonstrates the creative level expected of B.F.A. candidates. Official applications, instructions and guidelines for the digital portfolio are available in the Art Department office. Applications will be reviewed in spring semester for possible admission the following fall semester and in fall semester for possible admission for the following spring semester.

## Bachelor of Fine Arts in Art: Studio Concentrations

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major core requirements | 70 |
| Electives in art | 11 |
| Total units needed for graduation | $\mathbf{1 3 2}$ |

The B.F.A. is comprised of a group of core courses representing minimum requirements for all areas of emphasis, plus course requirements in studio arts, art history, a B.F.A. seminar, and a B.F.A. professional practices course. Students accepted into the program
decide on an area of emphasis from the following choices: painting, photography, printmaking, and sculpture.

1. Throughout the B.F.A. program, candidates must maintain a 3.00 GPA in art and a high level of performance and will be subject to review at all times. Advisors will direct students in their specific course of study based on regular critiques.
2. To complete the program, candidates will meet all course work for the degree and participate in the B.F.A. art exhibition, which will be reviewed by the art faculty to determine the candidate's professional competence in a chosen area of emphasis.
3. In order to receive the B.F.A. Degree, students must complete 24 upper-division units in art in residence. (May be included within the University's unit residency requirement.)

## Major Core Requirements

## Freshman and Sophomore Years

Complete the following four courses:

ARTS 101 Art Fundamentals 3
ARTS 102 Art Fundamentals
ARTH 210 Introduction to Art History
ARTH 211 Introduction to Art History
Choose a combination of the following to total 4 units:
ARTS 202 Beginning Drawing
ARTS 204 Beginning Life Drawing
Total lower-division core units

## Junior and Senior Years

Complete the following 5 courses:
ARTH 464 Modern Art from 1850 to 1945
3
ARTH 465 Modern Art from 1945 to 19793
ARTH 466 Contemporary Art
ARTS 465 B.F.A. Seminar
ARTS 466 B.F.A. Professional Artists' Practices
Choose any combination of the following to total 5 units:
ARTS 302 Intermediate Drawing
ARTS 304 Intermediate Life Drawing
ARTS 402 Advanced Drawing
ARTS 404 Advanced Life Drawing
Total upper-division core units

## Areas of Emphasis

In addition to the major core requirements, each B.F.A. student must complete one of the following 34-unit concentrations:

## Painting

Complete at least three lower-division courses from three different studio emphases (excluding painting and drawing) to total 6 units:
Complete 5 units in intermediate and advanced auxiliary studio courses (may include 3 units of Advanced Monoprint): ..... 5
Complete 20 units in the following courses, including at least 8 units at the 400 level: ..... 20
ARTS 320 Intermediate Painting ..... 2-4
ARTS 420 Advanced Painting ..... 2-4
Total units in the emphasis ..... 34
Photography
Complete at least three lower-division courses from three different studio emphases (excluding photography and drawing) to total 6 units: ..... 6-9
Complete 5 units in intermediate and advanced auxiliary studio courses: ..... 5
ARTS 208 Basic Black and White Photography ..... 2-3
Complete at least 21 units from the following courses, including at least 8 units at the 400 level: ..... 21
ARTS 308 Photographic Darkroom Processes ..... 2-4
ARTS 457 Advanced Photography ..... 1-4
Total units in the emphasis ..... 34
Printmaking
Complete at least three lower-division courses from three different studio emphases (excluding printmaking and drawing) to total 6 units: ..... 6-9
ARTS 245 Beginning Printmaking ..... 2-3
Complete 5 units in intermediate and advanced auxiliary studio courses (one upper-division course in photography is recommended): ..... 5
Complete 20 units in the following courses, including a maximum of 12 units in any one printmaking area: ..... 20
ARTS 340 Intermediate Etching and Woodcut ..... 2-4
ARTS 440 Advanced Etching and Woodcut ..... 2-4
ARTS 342 Intermediate Lithography ..... 2-4
ARTS 442 Advanced Lithography ..... 2-4
Total units in the emphasis ..... 34
Sculpture
Complete at least three lower-division courses from three differentstudio emphases (excluding sculpture and drawing) to total 6 units:6-9
ARTS 236 Beginning Sculpture ..... 2-3
ARTS 229 Beginning Ceramics (Recommended) ..... 2-4
Complete 5 units in intermediate and advanced auxiliary studio courses: ..... 5
Complete 21 units in the following courses, including at least 8 units at the 400 level: ..... 21
ARTS 336 Intermediate Sculpture ..... 2-4
ARTS 436 Advanced Sculpture ..... 2-4
Units from the following may be applied
to the 21-unit Sculpture Emphasis: ..... 3
ARTS 335 Intermediate Bronze Foundry ..... 2-4
ARTS 435 Advanced Bronze Foundry ..... 2-4
ARTS 329 Intermediate Ceramics ..... 2-4
ARTS 429 Advanced Ceramics ..... 2-4
ARTS 430 Large Scale Clay and Installation, Ceramics Sculpture ..... 2-4
Total units in the emphasis ..... 34
Total units in the major ..... 70

## Complete all of the following:

ARTS 101 Art Fundamentals ..... 3
ARTS 102 Art Fundamentals ..... 3
ARTH 210 Introduction to Art History ..... 3
or ARTH 211 Introduction to Art History ..... 3
Studio courses at any level ..... 5
Upper-division studio courses ..... 6

## Teaching Credential Preparation

The art major with a studio concentration generally fulfills the California Commission for Teacher Preparation and Licensing guidelines for the Single Subject Credential. For the Multiple Subject (elementary) Credential, students must pass the general knowledge portion of the National Teachers Examination. Students interested in a teaching career are encouraged to consult with coordinators in the Art Department as well as the Education Department with reference to legally required education courses, along with field experience, leading to graduate or second degree studies in art and education with a teaching credential. The public school art instructor usually is expected to possess a vast range of aptitudes in 2- and 3-dimensional art forms, materials, and techniques, and to have a strong sense of the conceptualization and philosophies for art education for younger learners. A broadly based studio arts, art history, and Education Department coursework program, including field experience in a concurrent pattern, is recommended after arrangements are made with both the Art Department and the Education Department. For further information, please see the Education section in this catalog. Contact departmental advisors and review the University's special bulletin, Programs in Teacher Education. Students seeking the Multiple Subject Credential may also wish to pursue a minor in applied arts (please see the Applied Arts section in this catalog).

## Career Minor in Arts Management

The career minor in arts management provides students of the arts with education, training, and experience in the practical, business side of their fields. Art majors completing this career minor will be in much stronger positions to find work and support themselves in fields within or closely related to their majors. The arts management career minor, combined with a minor in art history or art studio, also serves the needs of business administration majors who wish to specialize in the arts. Internships are available at local and regional art galleries, museums, nonprofit organizations, and other groups that provide services for artists. Please see the section on Career Minors for a description of the arts management minor program.

## DEPARTMENT OFFICE

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## Program Offered

## Minor in Astronomy

Astronomy, offered as a minor in the Department of Physics and Astronomy, is the study of the planets, stars, and galaxies in the universe beyond the earth's atmosphere. The fields of astronomy and astrophysics, the application of physics principles to astronomical observations, today deal with essential questions, such as the origin and nature of the "Big Bang;" the subsequent creation of matter and the chemical elements; the eventual formation and evolution of structure in the universe; and the life cycles of stars, including the tremendous explosions which are often their death knells and can lead to the formation of black holes. Modern astronomy leans heavily on the concepts and techniques of physics and mathematics. Astronomers use ground- and space-based instruments that detect photons spanning the electromagnetic spectrum, as well as particles such as cosmic rays or neutrinos. An emerging branch of astronomy seeks to correct the effect of the Earth's turbulent atmosphere using adaptive optics, thus providing "sharper" views of the universe. As a result of astronomy's cosmic scope and dependence on physics, degrees in astronomy are generally granted at the graduate level. The minor in astronomy, with a B.S. in physics, is an excellent preparation for graduate study in astronomy or astrophysics.

## Careers in Astronomy

Career fields for which an astronomy minor would be beneficial include aerospace, astronomy, atmospheric science, education, planetary geology, and geophysics.

A variety of courses are available within the minor, including intermediate and advanced laboratory work that utilizes the department's two observatories, and a number of descriptive courses for students whose major interests lie in other fields.

The SSU Campus Observatory, in operation since 1976, houses two telescopes, a 14-inch Schmidt-Cassegrain and a 10-inch Newtonian, with auxiliary instrumentation for CCD imaging and spectroscopy. Both telescopes are computer controlled. The observatory is used by students in laboratory and lecture courses, and is also available for faculty and student research projects. A NASA-funded research observatory, which saw "first light" in 2004, is located in the darker skies of northern Sonoma County. It includes a remotely controlled and operated 14-inch telescope mounted on a computercontrolled Paramount and equipped with a high quantum efficiency CCD detector and filter wheel. Equipment available for observational work in astronomy at SSU is ideally suited for studying objects that vary in time and space. This includes objects that vary in brightness such as pulsating, eclipsing, and cataclysmic star systems. This also includes the variable nuclei of active galaxies such as quasars and blazars, Gamma-ray Bursts (GRBs), and extrasolar planetary systems that exhibit planetary transits. Our equipment is also ideally suited for follow-up observations of Near Earth Objects (NEOs), which may threaten Earth.
The department is designing and constructing a remotely operable, approximately 1-meter telescope in southern Mendocino county: the Galbreath Wildlands Preserve Observatory. This will be a sustainable and ecologically sensitive facility, making the project innovative and cross-disciplinary. The department also houses a laboratory for experimental astrophysics research, where students can test and build cameras, spectrometers, and other equipment for SSU's telescopes.

All students are strongly encouraged to participate in the ongoing research programs of the department, and/or to propose studentinitiated research programs.

## Minor in Astronomy

Completion of a minimum of 20 units in astronomy and physical or life science courses, at least 12 of which must be in astronomy, constitutes a minor in astronomy. Courses that are used to meet requirements in a student's major may not be used toward the minor in astronomy. Supporting courses for the major may be used. Interested students should consult with an advisor in the Department of Physics and Astronomy.

## BIOLOGY

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## Programs Offered

Bachelor of Arts in Biology
Bachelor of Science in Biology
Master of Science in Biology
Minor in Biology
The Department of Biology offers two broadly based bachelor's degree programs and a master of science degree. Within each undergraduate degree program, there are opportunities for selecting a concentration. A congenial atmosphere allows students to develop a close relationship with peers, graduate students, and faculty. An emphasis is placed on laboratory and field courses and on participation in research.
The master's program is comprised of an active cohort of graduate students engaged in original research with faculty members in all areas of research specialization covered in the department. Graduate research is often supported by external funding and graduate student support includes teaching associateships that involve close mentoring relationships with instructional faculty.
Laboratory instruction provides students with hands-on opportunities with physiological equipment, ultracentrifugation, PCR, electrophoresis, epifluorescence and confocal microscopy, and microbiological techniques. Excellent laboratory and greenhouse facilities, such as the Raymond Burr Greenhouse and orchid collection,
exist for maintaining live material for classroom use and research. A radioisotope laboratory is also available.

Field courses draw upon the unparalleled diversity of habitats in the North Bay region. They also capitalize on two spectacular nature preserves: Fairfield Osborn Preserve and Galbreath Wildlands Preserve, administered by Sonoma State University. In addition, the department maintains museum collections of local plants, algae and fungi (North Coast Herbarium of California), vertebrates (Jack Arnold Vertebrate Collection), and insects and other invertebrates.

## Careers in Biology

Biology graduates are prepared to enter the job market in a variety of careers, including government agencies, park service, biological research, teaching, biotechnology and pharmaceutical research, and health care. Students seeking a teaching credential may elect biology as their major within the teaching credential preparation program in science. Graduates from the department have an outstanding record of acceptance in advanced degree programs at health profession and graduate programs.

The biology curriculum, supported by physical sciences and mathematics, is designed to provide students with a strong background in the principles of biology and rigorous upper-division instruction. This combination of breadth and in-depth instruction allows students to develop the intellectual foundations and the skills necessary to deal with the specific biological concerns of today and the flexibility to meet the future needs of the profession.

## Biology Degree Concentrations

| Bachelor of Arts | Bachelor of Science |
| :--- | :--- |
| Botany | Physiology |
| Zoology | Molecular and Cell Biology |
|  | Ecology and Evolution and Conservation |
|  | Marine Biology |
|  | Microbiology |

Many students are well served by the basic B.A. plan without a concentration. Some, however, select one of two concentrations for a B.A. Both the B.A. and B.S. share a common lower-division core, hence beginning students need not select a degree plan immediately. Students should contact the department and their assigned advisor for specific information on requirements of various concentrations.

## Preparation for Applying to Health Professions Programs

Students majoring in biology and intending to pursue careers in the health care profession may follow the guidelines for a B.S. degree or a B.A. degree (with the addition of MATH 161, CHEM 335B, and PHYS 210AB and 209AB). They are encouraged to enroll in SCl 150,

Introduction to Careers in the Health Professions, during their first fall semester.

For admission to most health profession schools, regardless of major, it is typically recommended or required that specific upperdivision biology courses be incorporated into the B.A. or B.S. degree. These include:

BIOL 328 Vertebrate Evolutionary Morphology
BIOL 340 General Bacteriology
BIOL 344 Cell Biology
BIOL 342 Molecular Genetics
BIOL 349 Animal Physiology
BIOL 472 Developmental Biology
BIOL 480 Immunology
An upper-division biochemistry course (e.g. CHEM 446) is often required/ recommended.

## Secondary Education Teaching Credential Preparation in Life Science

Contact the department chair for information on completing a biological sciences concentration for a Single Subject Credential Preparation Program.

## Degree Requirements

|  | B. A. | B. S. |
| :--- | :---: | :---: |
| General Education (51 units, 12 units covered by <br> major requirements in math and science) | 39 | 39 |
| Lower-Division Biology (BIOL 121, 122, 123) <br> Upper-Division Biology Core <br> (1 course from each of 4 core areas) | 12 | 12 |
| Upper-Division Biology Electives <br> (as specified by concentration) | 16 | 16 |
| Senior Research (BIOL 494 and 496) | $15-16$ | 20 |
| Physical Sciences and Mathematics: | -- | 3 |
| CHEM 115AB |  |  |
| CHEM 335A | 10 | 10 |
| CHEM 335B | 5 | 5 |
| MATH 165 | 4 | 3 |
| MATH 161 | -- | 4 |

## B. $A$.

PHYS 210A/209A or GEOL 102
4 or 3 --

## B. S.

PHYS 210A/209A and 210B

| (PHYS 114/116/214 may substitute) | -- | 7 |
| :--- | :---: | :---: |
| General Electives | $15-16$ | 3 |
| Total units needed for graduation | 120 | 126 |

## Upper-Division Biology Core

Complete one course from each of the following areas (additional courses from each area may be used as electives or may be required for particular concentrations):

## Organismal Biology (4 Units)

BIOL 322 Invertebrate Biology (4)
BIOL 323 Entomology (4)
BIOL 327 Vertebrate Biology (4)
BIOL 329 Plant Biology (4)
BIOL 340 General Bacteriology (4)
BIOL 382 Parasitology (4)

## Physiology (4 Units)

BIOL 328 Vertebrate Evolutionary Morphology (4)
BIOL 347 Environmental Physiology (4)
BIOL 348 Plant Physiology (4)
BIOL 349 Animal Physiology (4)

## Molecular And Cell Biology (4 Units)

BIOL 342 Molecular Genetics (4)
BIOL 343 Molecular Microbiology (4)
BIOL 344 Cell Biology (4)
BIOL 383 Virology (4)

## Ecology And Evolution (4 Units)

BIOL 333 Ecology (4)
BIOL 335 Marine Ecology (4)
BIOL 337 Behavioral Ecology (4)
BIOL 341 Evolution (4)

## Upper-Division Biology Electives

Biology major electives are upper-division courses beyond those used to fulfill the upper-division core and the B.A. or B.S. concentration specific requirements. Major electives are used to meet the total upper-division unit requirement for the B.A. (31 units) or B.S. ( 36 units). Major electives are chosen from among the following:

1. Additional courses from the upper-division core areas and alternative courses in a concentration.
2. Any Biology course numbered greater than 320 . This list is subject to revision following this catalog edition. Students should check with their academic advisor for updates. Seniors may also take graduate courses ( 500 level) with permission of the instructor.
3. Supervisory courses in biology. These courses are: BIOL 395, 495, 496, 498, and 499 (see Restrictions, below, for unit limits for these courses).
4. Biology colloquium, BIOL 390, may be taken twice (2 units) for major credit.
5. A maximum of 4 units from courses related to biology from other departments or from the department's non-majors courses unless specified in an approved concentration. To apply the units to the major, students are required to obtain written permission from their advisor before taking these courses, unless the course is listed as part of a concentration. (Obtain forms from the department office.) Following is the current list of acceptable courses: ANTH 301, 302, 318, 345, 414; BIOL 220, 224, 243, 307; CHEM 441, 445, 446; ENSP 315, 321, 322, 323; GEOG 416; GEOL 413; KIN 360; PSY 451.

## Restrictions

1. A maximum of 4 units taken in the $\mathrm{Cr} / \mathrm{NC}$ grading mode may be applied to the major from the following courses: BIOL 390, $395,498,499$. All other courses in the biology major must be taken in the traditional grading mode (A-F).
2. A maximum of 7 units from the following list of courses may be applied to the major: BIOL 390, 395, 494, 495, 496, 498, and 499.

## Sample Four-Year Program for Bachelor's Degree in Biology

FRESHMAN YEAR:: 31 Units

Fall Semester (16 Units)
ENGL 101 (3) (A2)
BIOL 121 or 122 (4) (B2)
MATH 165 (4) (B4)
CHEM 115A (5) (B1)

Spring Semester (15 Units)
PHIL 101 or 102 (3) (A3)
BIOL 121 or 122 (4) (B3)
CHEM 115B (5)
Electives (3)
GE

SOPHOMORE YEAR:: 32-33 Units

| Fall Semester (16 Units) | Spring Semester (16-17 Units) |
| :--- | ---: |
| BIOL 123 (4) | G.E. Group A1 (3) |
| CHEM 335A (5) | BIOL UD Core (4) |
| Electives (7) | Electives (9-10) |
| GE (3) | GE (6-7) |
| Support (4) | Support (3) |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


| Fall Semester (15-16 Units) | Spring Semester (15-16 Units) |
| :---: | :---: |
| Two BIOL UD core (8) | One BIOL UD core (4) |
| Electives (7-8) | Electives (11-12) |
| GE (3-4) | GE (3-4) |
| Support (4) | BIOL conc. (4) |
|  | Support (4) |
| SENIOR YEAR:: 26-31 Units |  |
| Fall Semester (14-17 Units) | Spring Semester (12-14 Units) |
| Electives (14-17) | Electives (12-14) |
| GE (6-8) | GE (3-4) |
| BIOL conc. (8-9) | BIOL conc. (4) |

## Bachelor of Arts in Biology: Concentrations

The lower-division core is structured so that switching between the B.A. and B.S. programs in the first two years will not delay completing either degree program. The B.A. does not require a concentration. However, students may wish to focus their upperdivision course work in a particular area. Botany and zoology are approved concentrations in the B.A., which may be designated on
the diploma. Courses from all 4 core areas are included in each concentration. The upper-division major requirements for each are:

## B.A. Botany Concentration (31 units) <br> BIOL 329 Plant Biology 4

BIOL 348 Plant Physiology 4
BIOL 330 Plant Taxonomy 4
BIOL 331 Aquatic Botany 4
BIOL 333 Ecology 4
BIOL 341 Evolution 4
One of the following 2 courses: 4
BIOL 342 Molecular Genetics, or
BIOL 344 Cell Biology
Additional upper-division major electives 3
B. A. Zoology Concentration (31-32 units)
BIOL 322 Invertebrate Biology

BIOL 327 Vertebrate Biology 4
BIOL 328 Vertebrate Evolutionary Morphology 4
BIOL 323 Entomology 4
One of the following 2 courses: 4
BIOL 347 Environmental Physiology or
BIOL 349 Animal Physiology
One of the following 3 courses: 4
BIOL 463 Herpetology, or
BIOL 468 Mammalogy, or
BIOL 472 Developmental Biology
One course from the Molecular and Cell Biology Core Area 4
One course from the Ecology and Evolution Core Area 4

## Bachelor of Science in Biology

Students must specify a particular concentration for the B.S. and meet its requirements. The lower-division core is structured so that switching between the B.A. and B.S. programs in the first two years will not delay completing either degree program. Students normally complete the additional physical science and mathematics for the B.S. after the first two years.

Courses from all 4 core areas are included in each concentration. The following are approved concentrations in the B.S., which will be designated on the diploma. The upper-division major requirements for each are:
B. S. Marine Biology Concentration (39 units)
BIOL 322 Invertebrate Biology ..... 4
BIOL 331 Aquatic Botany ..... 4
BIOL 335 Marine Ecology ..... 4
BIOL 341 Evolution ..... 4
BIOL 347 Environmental Physiology ..... 4
BIOL 485 Biometry ..... 4
One course from the Molecular and Cell Biology Core Area ..... 4
Additional upper-division major electives ..... 8
BIOL 494 Independent Research Design ..... 1
BIOL 496 Senior Research ..... 2

One of the following 3 courses:

## B.S. Molecular and Cell Biology Concentration (39 units)

BIOL 340 General Bacteriology
BIOL 342 Molecular Genetics
BIOL 344 Cell Biology
BIOL 341 Evolution
One of the following 2 courses:
BIOL 348 Plant Physiology
BIOL 349 Animal Physiology
Two of the following 4 courses:
BIOL 343 Molecular Microbiology
BIOL 383 Virology
BIOL 472 Developmental Biology
BIOL 480 Immunology
One of the following 2 courses:
CHEM 445 Structural Biochemistry
CHEM 446 Metabolic Chemistry
One of the following 3 courses:
CHEM 441 Biochemical Methods
BIOL 544 Advanced Cell Biology
BIOL 545 Recombinant DNA Laboratory
Additional upper-division major electives
BIOL 494 Independent Research Design
BIOL 496 Senior Research
B. S. Ecology, Evolution, and Conservation Concentration (39 units)

BIOL 333 Ecology
BIOL 341 Evolution
ENSP 322 Conservation Biology
BIOL 342 Molecular Genetics
BIOL 485 Biometry
One course from the Organismal Biology Core Area
One of the following 4 courses:
BIOL 335 Marine Ecology
BIOL 337 Behavioral Ecology
BIOL 338 Environmental Microbiology and Biotechnology
GEOG 365 Biogeography and Landscape Ecology
GEOL 413 Paleontology
One course from the Physiology Core Area
Additional upper-division major electives
BIOL 494 Independent Research Design
BIOL 496 Senior Research

## B. S. Physiology Concentration (39 units)

BIOL 344 Cell Biology
BIOL 472 Developmental Biology 4
CHEM 446 Metabolic Chemistry 3
Three of the following 4 courses:

BIOL 328 Vertebrate Evolutionary Morphology
BIOL 347 Environmental Physiology
BIOL 348 Plant Physiology
BIOL 349 Animal Physiology

BIOL 322 Invertebrate Biology
BIOL 327 Vertebrate Biology
BIOL 329 Plant Biology
One course from the Ecology and Evolution Core Area 4
Additional upper-division major electives 5
BIOL 494 Independent Research Design 1
BIOL 496 Senior Research 2
B.S. Microbiology Concentration (39 units)

BIOL 340 General Bacteriology 4
One of the following 3 courses: 4
BIOL 347 Environmental Physiology
BIOL 349 Animal Physiology
BIOL 348 Plant Physiology
One of the following 3 courses: 4
BIOL 342 Molecular Genetics
BIOL 343 Molecular Microbiology
BIOL 344 Cell Biology
One of the following 2 courses: 4
BIOL 333 Ecology
BIOL 341 Evolution
Two of the following 3 courses: 8-9
BIOL 382 Parasitology
BIOL 480 Immunology
BIOL 481 Medical Microbiology
One of the following 2 courses:
CHEM 255 Quantitative Analysis+
BIOL 338 Environmental Microbiology and Biotechnology
Additional upper-division major electives
BIOL 494 Independent Research Design 1
BIOL 496 Senior Research 2

+ If waived by completion of CHEM 125A/B these 4 units must be completed by taking other advisor approved courses.


## Minor in Biology

The minor consists of a minimum of 20 units in the Department of Biology with a GPA of 2.00 or higher. The purpose of the minor is to provide the student with a rigorous background in biology that supplements the student's major.
Students must develop a program in consultation with a faculty
advisor in the Biology Department. Requirements of the biology Minor are:

Take two of the 3 lower-division major's courses listed below
BIOL 121 Diversity, Structure, and Function
BIOL 122 Genetics, Evolution, and Ecology
BIOL 123 Molecular and Cell Biology
Twelve additional units in Biology

At least eight of these units must be upper-division courses for majors and at least one of those must have a laboratory. One GE course in biology or a third lower-division biology major's course can be applied, as well as one unit of Biology Colloquium (BIOL 390). All courses applied to the minor must be taken for a letter grade, except BIOL 390 .

## Master of Science in Biology

The Master of Science degree in the Department of Biology is a thesis program. Students complete 30 units of course work to master the concepts and techniques in their chosen area. They also conduct original research under the direction of a member of the graduate faculty and write up their findings as a Master's Thesis.
Graduate students in the Department of Biology are supported through a variety of sources. The Department has a limited number of paid teaching associateships available each semester. The University offers a limited number of tuition fee waivers for qualified teaching associates. In addition, students may receive research associateships through their faculty mentor's research grants. Students can also obtain academic scholarships as well as financial aid (usually in the form of low-interest loans).
The Department of Biology graduate faculty are actively involved in research in a wide range of disciplines, including ecology and evolutionary biology, molecular and cell biology, physiology, functional morphology, and organismal biology. Additional faculty from other departments on campus have expertise in biology and are adjunct members of the graduate program.
Graduates of this program find themselves with an enhanced understanding of biology and first-hand experience in the practice of science. Many of our students go on to doctoral programs; others pursue careers in teaching, research, environmental consulting, resource management, industry, and various health care professions.

## Admission to the Program

To apply, you must submit: A) items 1-3 to SSU's Admissions and Records Office, and B) copies of items 2 and 3 and originals of items 4 and 5 to the Department of Biology Graduate Coordinator. The application deadline in the department is January 31 for the Fall semester and October 31 for the Spring semester. The SSU Admissions and Records Office will notify students about the status of their applications.

1. University application obtained from the Admissions and Records Office.
2. Official copies of all undergraduate transcripts.
3. One-to-two page Statement of Purpose essay detailing your background in biology, objectives for graduate school, and career goals.
4. Two letters of recommendation from individuals familiar with the student's background in biology and able to comment on the potential for conducting original work.
5. Graduate Record Examination (GRE) scores for the General test. Biology Subject scores are recommended, but not required.

IMPORTANT: The complete application package must be received in the Admissions and Records Office and by the Biology Graduate Coordinator before an applicant will be considered for admission.

## Admission to the program requires:

I. Meeting California State University admissions requirements.
II. Acceptance by a biology graduate faculty member to serve as a faculty advisor. Students are strongly encouraged to review the information on faculty members and contact them prior to completing an application.
III. Approval of the Graduate Committee. Applications will be reviewed for evidence that the prospective student is capable of initiating and performing original research. Applicants deficient in undergraduate course preparation will be expected to demonstrate competency before being advanced to candidacy. As a general guideline, the Department uses the following criteria to determine this potential:
An undergraduate degree in biology or equivalent, including:
A. One course in calculus or statistics;
B. One year of general chemistry and one semester of organic chemistry;
C. At least one other course in physical sciences;
D. Upper-division coursework demonstrating competence in three of four core areas (organismal biology; physiology; molecular or cellular biology; ecology or evolutionary biology);
E. GPA of 3.00 or higher in the last 60 units;
F. A score at or above the 50th percentile on each section of the General Examination of the GRE; and
G. Evidence in letters of recommendation of potential for conducting independent research in biology.

## BUSINESS ADMINISTRATION

## DEPARTMENT OFFICE

## Stevenson Hall 2042

(707) 664-2377
www.sonoma.edu/sbe
DEPARTMENT CHAIR
Terry Lease

## ADMINISTRATIVE COORDINATOR

Barbara Dietrich
UNDERGRADUATE ACADEMIC ADVISOR
Sheila Mackintosh-Sims
CAREER CENTER DIRECTOR
Sarah Dove
INTERNSHIP DIRECTOR
Duane Dove
DIRECTOR OF M.B.A. PROGRAM
Kris Wright
DIRECTOR OF EXECUTIVE M.B.A. PROGRAM
Richard Campbell

## Faculty

*Sherri C. Anderson
Thomas Atkin
Richard Campbell
*T.K. Clarke
Duane Dove
Kirsten Ely
Armand Gilinsky
Robert Girling
David Horowitz
Aidong Hu
Douglas Jordan
Terry Lease
Sandra Newton
Janeen Olsen
Vincent Richman
*James Robertson
Michael Santos
Elizabeth Stanny
Janeira Sutanonpaiboon
Elizabeth Thach
Karen Thompson
Torben Thomsen
John Urbanski
Zachary Wong
*Faculty Early Retirement Program

## Programs Offered

Bachelor of Science in Business Administration
Minor in Business Administration
Master of Business Administration
General
Wine Business
Executive Master of Business Administration
Additional Professional Business Programs

## Department Mission

The Department of Business Administration at Sonoma State University offers high-quality, relevant education in business to aspiring and practicing professionals, managers, and entrepreneurs in the private and public sectors. It does this in a small liberal arts and sciences environment in which faculty emphasize the development and continuous improvement of the skills of critical thinking, effective communication, ethical reasoning, maintaining a global perspective, and applying disciplinary tools.

## Careers in Business Administration

The Department of Business Administration offers a wide selection of specialized courses designed to meet a variety of career objectives. These career objectives include, but are not limited to, management-level accounting positions in business, government or public accounting; financial management, financial analysis and planning, investment banking, and insurance; general management, personnel, labor relations, public relations, wage and salary administration, training and international business; advertising and promotion, product development, marketing research and sales management; and positions in sales and management within the wine industry.

## Bachelor of Science in Business Administration

The Bachelor of Science in Business Administration includes a pre-business program, a core of course requirements, and a broad range of fields of concentration. All majors take preparatory courses and lower-division core requirements and then select concentrations based on individual interest and career plans. The fields of concentration include: accounting, finance, financial management, management, marketing, wine business strategies, and a special concentration designed by the student with the approval of the department chair. A Bachelor of Science in Business Administration with an emphasis in one or more areas of concentration prepares students for innovative and responsible citizenship and leadership in society-domestic and worldwide.

## Degree Requirements

| General Education (freshmen) | 51 or |
| :--- | ---: |
| General Education (transfer) | 48 |


| Pre-Major Preparatory Courses |  |
| :--- | ---: |
| GE-A1 |  |
| Take MATH 131 or MATH 161 in |  |
| GE category B4 |  |
| Take ECON 204 in GE category D5 |  |
| Non-general education prerequisite: | 4 |
| $\quad$ ECON 205 | 55 |
| Major requirements [minimum] |  |
| General electives |  |
| (to meet minimum degree requirements) | 14 |
| Minimum units needed for graduation: | $\mathbf{1 2 4}$ |

A minimum of 124 semester units is required to graduate with a bachelor of science degree in business administration. A total of 55 units with a minimum 2.00 GPA is required for the major; 14-15 additional units are needed in preparatory courses, some of which might apply toward general education requirements. In addition to general education and the major, some students need to take other coursework to fulfill unit requirements for the degree. Such courses may be selected from the entire University curriculum and may be used to explore other disciplines, complete a minor, or take more classes in the major.

## Advising

The Department of Business Administration believes that advising is essential for students' success. Students are encouraged to meet regularly with their advisor and are required to seek advising at certain critical junctures. These junctures are when creating a 4 -year plan, when changing status from pre-business to business and planning a concentration, when applying for graduation, and when experiencing academic difficulties.

The department maintains an active advising function in a twotier system. Business administration employs a full-time academic advisor with whom each student in pre-major status should consult on matters regarding general education, University requirements, the pre-major program, and routine major issues. When students move from pre-major to the business administration major they are assigned a faculty advisor. Every full-time faculty member actively advises students, especially on matters relating to the major and careers.

## Pre-Business Administration Program

All students enter the business administration program as pre-business majors. Pre-business students must meet the computer competency requirement, complete all pre-major coursework, and attain junior status prior to being admitted to business administration major status. Business major status is required to take upper-division business courses.

## Computer Competency

All business majors must demonstrate computer competency prior to taking BUS 211, BUS 230A, or any upper-division business core class. Competency can be demonstrated by passing the Practical

Computer Competency Requirement (PCCR) examination administered by the Department of Business Administration. Students should plan carefully and consult with the school website, www.sonoma. edu/sbe/students, for test and registration information.

## Pre-Major Courses

Pre-major coursework consists of both preparatory courses and the lower-division portion of the business major. Preparatory courses and lower-division core courses together constitute the pre-major. A letter grade of $C$ or better is required in each pre-major course. In addition to demonstrating computer competency, all the following coursework must be completed as part of the pre-major program:
Preparatory Courses (units that are necessary but do not count toward the major) GEA-1
ECON 204 Introduction to Macroeconomics (4)
ECON 205 Introduction to Microeconomics (4)
MATH 131 Introduction to Finite Mathematics (3) or MATH 161 Calculus (4)
Lower-Division Business Core (units count in major)
BUS 211 Business Statistics (4) or MATH 165 Elementary Statistics (4)
BUS 225 Legal Environment of Business (4)
BUS 230A Financial Accounting (4)
BUS 230B Managerial Accounting (4)
When the pre-major courses listed above are completed with a C or better, students have to file a Change of Status ("blue") form along with all corresponding unofficial transcripts in order to change to Business Administration. Then the student will be able to register for upper-division business major classes.

## Major in Business Administration

| Major Component | Normal Unit Distribution |
| :--- | ---: |
| Lower-division business core (4 courses) | $12-16$ |
| Upper-division business core courses |  |
| (6 courses) | 24 |
| Concentration (5 courses) | $15-20$ |
| Electives in major | As needed |
| Total units needed for major: | 55 |

Transfer students may complete the Business Administration course requirements (10-course core and 5-course concentration) with fewer than 55 units; however, additional business electives must be taken to complete the 55-unit major requirement. Such students may elect to take additional coursework from their own or another area of concentration or from other approved courses offered within the business curriculum, such as BUS 295, 296, 385, 495, and 499, as long as they meet the prerequisites for such courses. It is recommended that students familiarize themselves with course requirements and consult with a faculty advisor prior to choosing elective courses intended to meet the major requirements. At least one-half of the courses, including a minimum of 3 courses in the concentration, must be completed at SSU.

## Upper-Division Business Core

All business students must complete these core requirements (coursework in the selected area of concentration usually may be taken concurrently):

- BUS 316 Production/Operations Management (4)
- BUS 319 Management Information Systems (4) or BUS 334* Accounting Information Systems
- BUS 344 Organizational Behavior (4)
- BUS 360 Introduction to Marketing (4)
- BUS 370 Introduction to Managerial Finance (4)
- BUS 491** Seminar in Management Strategy and Policy (4)
* BUS 334 is required for accounting concentration students.
** BUS 491 is the capstone course in the business administration major designed to be taken in the student's final semester. Prerequisite: all business core requirements, a passing score on the WEPT, and application for award of degree.


## Concentrations for Business Administration Majors

Every business student must complete an area of concentration within the major. Each concentration consists of five courses. Each of these courses will be of 3 or more units. Students should plan carefully and consult their faculty advisor regularly and before enrolling in concentration courses. Those wishing to complete a double concentration must take at least eight concentration courses beyond the core. Many concentration courses can be taken while completing core requirements. Most courses in the concentrations have prerequisites. At times, appropriate courses from other majors, such as psychology, sociology, public administration, economics and environmental studies, may be substituted in a concentration with the approval of the concentration advisor and the department chair. Except for the special concentration, at least 3 of the concentration courses must be taken at SSU.

## Concentration Advisors

Accounting: Anderson, Stanny, Richman, Ely, Thomsen
Finance: Hu, Jordan, Santos
Financial Management: Anderson, Stanny, Hu, Jordan, Richman, Lease, Santos, Ely, Thomsen

## Management:

Girling, Thach, Thompson, Gilinsky, Dove, Newton, Urbanski, Sutanonpaiboon
Marketing: Olsen, Atkin, Campbell, Horowitz
Wine Business Strategies: Thach, Gilinsky, Olsen, Atkin
Special: Wong, Department Chair

## Accounting Concentration: 5 Courses

Five courses are required. This prepares students for management-level accounting positions in business and government or public accounting. Specialized courses are offered in financial accounting, cost accounting, auditing, and taxation. Students who intend to sit for the CPA exam should take all upper-division accounting courses listed below.
BUS 330A Intermediate Accounting
BUS 330B Intermediate Accounting 4
BUS 430 Advanced Accounting 4

BUS 433A Individual Taxation 4
BUS 433B Corporation and Estate Taxation ..... 4
BUS 434 Auditing ..... 4
BUS 435 Cost Accounting ..... 3
BUS 436 Business Law ..... 4
BUS 437 Governmental Accounting ..... 4
Finance Concentration: 5 CoursesFive courses are required. The concentration prepares the student for a careerin financial management, financial analysis and planning, investment banking,or insurance.
Required Courses
BUS 472 Investments ..... 4
BUS 474 Computer Applications in Finance ..... 4
Select three courses from Group A OR select two courses from Group $A$ and one course from Group B.
Group A
BUS 377 Financial Institutions (or ECON 375 Money and Banking) ..... 4
BUS 385 Special Topics (with concentration advisor consent) ..... 3-4
BUS 470 Managerial Finance ..... 4
BUS 471 Financial Planning and Strategy ..... 4
BUS 473 International Finance ..... 4
BUS 476 Risk Management and Insurance ..... 4
Group B
BUS 330A Intermediate Accounting ..... 4
BUS 433B Corporate Tax for Financial Management ..... 4
BUS 475W Wine Accounting and Finance ..... 4
BUS 499F Internship in Finance ..... 3-4
ECON 311 Public Economics ..... 4
ECON 411 Seminar in Public Finance ..... 4

## Financial Management Concentration: 5 Courses

Five courses are required. The financial management concentration prepares students for financial management-level positions in business or government. Because the disciplines of accounting and finance are closely related, this concentration gives the student exposure to courses from both disciplines. Students planning to take the CPA exam are strongly encouraged to take the accounting courses BUS 330B, BUS 433A, and BUS 433B as preparation for the exam. The coursework will prepare the student for some of the areas covered on the Certified Management Accountant (CMA) exam.

## Required Courses:

BUS 330A Intermediate Accounting 4
BUS 435 Cost Accounting 4
BUS 472 Investments 4
BUS 474 Computer Applications in Finance 4

## Select one of the following courses:

BUS 330B Intermediate Accounting
BUS 377 Financial Institutions (or ECON 375
Money and Banking)
BUS 437 Governmental Accounting 4
BUS 470 Managerial Finance 4
BUS 471 Financial Planning and Strategy 4
BUS 473 International Finance 4
BUS 475W Wine Accounting and Finance 4
BUS 476 Risk Management and Insurance 4

## Management Concentration: 5 Courses

Five courses are required. The management concentration is designed to prepare students for entry-level management positions.

## Required Courses:

BUS 340 Survey of Human Resource Management (4) or BUS 340W*
BUS 350 Management
BUS 452 Leadership in Organizations

## Select at least two courses:

BUS 385 Special Topics (with concentration advisor consent)
BUS 391 Cross Cultural Communication and Negotiation
BUS 393 Introduction to International Business
BUS 446 Government Regulation of Human Resources
BUS 453 Small Business Analysis
BUS 499MG Internship in Business Management

## Marketing Concentration: 5 Courses

Five courses are required. The marketing concentration provides creative careers in advertising and promotion, product development, sales, and retailing, as well as marketing research and sales management.

## Required Courses:

BUS 367 Consumer Behavior
BUS 462 Marketing Research
BUS 469 Marketing Management

## Select at least two courses:

BUS 366 Retail Management
BUS 368 International Marketing
BUS 385 Special Topics (with concentration advisor consent)
BUS 396W The Global Wine Industry
BUS 453 Small Business Analysis
BUS 461 Promotion Management
BUS 463 Sales Management and Personal Selling 4
BUS 464W Production, Operations, and Distribution (Wine) 4
BUS 465W Wine Marketing 4
BUS 468 Marketing Decision Making 4
BUS 499MK Internship in Marketing 3-4

## Wine Business Strategies (WBS): 5 Courses

Five courses are required. This concentration is most ideal for students seeking a general management position within the wine industry. A viticulture and/or enology academic background is not required.

## Required Courses:

BUS 305W Introduction to Wine Business Strategy 4
BUS 464W Production, Operations, and Distribution (Wine) 4
BUS 465W Wine Marketing 4
BUS 499W Internship in Business (Wine) 3-4

## Select at least one of the following courses:

BUS 340 Human Resource Management 4
BUS 366 Retail Management 4
BUS 396W Global Wine Industry 3
BUS 397W The Global Marketplace for Wine 4
BUS 475W Wine Accounting and Finance 4
BUS 467W Wine E-Commerce and Direct Sales 4

## Special Concentration: 5 Courses

The Special concentration is intended for those in either of the following categories:
First, the special concentration is for those who wish to have a general B.S. degree in business administration. To complete this concentration a student must, with the approval of a faculty advisor, select five business courses from at least two areas of concentration. At least two of the five courses would normally be chosen from among those listed as required within the various concentrations. Second, it is for those students who wish, with the approval of the department chair, to design a concentration in an area not covered sufficiently within the department, using courses outside of the department. To complete this concentration, five upper-division courses, at least three-unit, should be selected with approval from an advisor and the chair.

## Undergraduate Program Special Requirements

## Residency

At least one-half of the courses of the major, including three of the courses in the concentration, must be completed at Sonoma State University.

## Change of Major

The catalog year for a student declaring a major in Business Administration will be the catalog in effect at the time of such declaration.

Change of Status from Pre-Business to Business Administration Major
Pre-Business students must file a Change of Status ("blue form") in the department to request change of status to the business administration major. This request should be submitted as soon as the student has completed, with a C or better, all required courses in the pre-major program. A faculty advisor will be assigned to assist the student with matters related to the major program. The change to business administration status will not become effective until completion of pre-major requirements (with minimum "C" grades) has been verified.

## Sample Four-Year Program for Bachelor of Science in Business Administration

Select a lab with B1 or B2 GE; select an Ethnic Studies course for C1, C2, C3, C4, D1 or E.

FRESHMAN YEAR:: 32-33 Units

## Take PCCR*

[Avoid UD GE until Junior year]
Practical Computer Competency Requirement (PCCR) exam should be taken in freshman year
Fall Semester (16-17 Units)
Spring Semester (16 Units)
ENGL 101 (A2) (3)
PHIL 101 or 102 (A3) (3)
ECON 204 (D5) (4)
ECON 205 (4)
Math 131 or 161 (B4) (3-4)
GE (B3) (3)
GE (C1 or C4) (3)

Elective: UNIV 102 (3)
Pols 200 (D4)(3)
GE (D1 or D2) (3)

SOPHOMORE YEAR:: 31-32 Units
[Avoid UD GE until Junior year]

| Fall Semester (14-15 Units) | Spring Semester (17 Units) |
| :--- | ---: |
| BUS 230A (4) | BUS 230B (4) |
| BUS 225 (4) | BUS 211 (4) |
| GE (B1 or B2 with lab) (3-4) | GE (D3) (3) |
| GE (A1) (3) | GE (B2 or B1) (3) |
| Elective (3) |  |
| JUNIOR YEAR:: 31-32 Units |  |
| [Take WEPT] |  |

Fall Semester (17 Units)
UD BUS Core** (4)
UD BUS Core*** (4)
GE (C2 or C3) (3)
GE (D2 or D1)(3)
Spring Semester (14-15 Units)

Elective (3)

SENIOR YEAR:: 27-30 Units
[Apply for graduation at beginning of senior year]

Fall Semester (14-15 Units)
BUS concentration (3-4)
BUS concentration (3-4)
UD BUS Core (4)
UD GE (C4 or C1) (3)
Electives as needed

Spring Semester (13-15 Units)
UD BUS Core: 491**** (4)
BUS concentration (3-4)
BUS concentration (3-4)
UD GE (E) (3)
Electives if needed

TOTAL SEMESTER UNITS:: 124 [refer to catalog and consult advisor(s) for additional information]
*PCCR examination is a prerequisite for BUS 211, BUS 230A, or any upper-division business core class.
**Choose BUS 344 first if planning management concentration; 360 first if marketing; 370 first if finance or financial management.
***For information systems, students should select BUS 334 if planning accounting or financial management; otherwise, select BUS 319.
****BUS 491, designed to be taken in the last semester of the program (prerequisite: all other core courses, passing score on the WEPT, and application for award of degree).

## Minor in Business Administration

A minor in business administration shall consist of a minimum of 20 units in business administration. In addition to the required courses listed below, additional coursework, chosen with consent of a faculty advisor, may be selected as needed to obtain the 20-unit minimum. The upper-division coursework must be completed at Sonoma State University.

BUS 230A Principles of Accounting 4
BUS 230B Principles of Accounting 4
BUS 344 Organizational Behavior 4
BUS 360 Introduction to Marketing 4
BUS 370 Introduction to Managerial Finance 4
The lower division accounting courses must be completed before taking the upper-division courses. Transfer courses must have an equivalent course offered in our catalog. BUS 150, 211, 219, 270, $292,295,296,388,495$, and 499 may not be counted in the minor. Students must complete a Business Administration Minor Declaration Form in consultation with their department faculty advisor. Minors must be approved by the department chair.

## Master of Business Administration

The Master of Business Administration degree (M.B.A.) is intended to prepare graduates for positions of leadership in organizational settings in both the private and public sectors. The program is an evening program designed primarily to meet the needs of the working student in Sonoma County and the North Bay region. Students seeking a full-time day program are advised to apply to one of the other CSU schools. The M.B.A. degree program has two concentrations: general and wine business.

## M.B.A. Admissions

All documentation required for admission must be received by the University and department no later than the last day of the relevant application period.

The M.B.A. application periods are as follows:
Fall semester - November 1 to March 30
Spring semester - August 1 to September 30
You can apply online at http://www.sonoma.edu/ar/prospective/gs/ apply.shtml.

To be admitted to the M.B.A. program, a candidate must meet the requirements of both the University and the Department of Business Administration. In addition, all candidates for the Wine Business concentration will be expected to have completed 24 units of wine related coursework or 24 months of wine industry work experience, or any combination thereof.

## University Requirements

The requirements for admission to graduate study (work beyond the bachelor's degree) at Sonoma State University are in accordance with Title 5, California Administrative Code. For admission, students must:

- Hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association or have completed academic preparation as determined by an appropriate campus authority;
- Have attained a grade point average of at least $2.50(\mathrm{~A}=$ 4.00) in the last 60 semester ( 90 quarter) units attempted;
- Have been in good standing at the last college attended; and
- Applicants who have not spent at least three years of school at the secondary level (or beyond) where English is the principal language of instruction must have earned a minimum score of 550 on the paper version or 213 on the computerized version of the Test of English as a Foreign Language (TOEFL).


## Department Of Business Administration Requirements

An individual may apply for admission to the M.B.A. program with or without an academic background in business administration. Applicants will not be considered without a current Graduate Management Admissions Test (GMAT) score (less than 5 years old). The department considers the candidate's application, academic background, and performance on the GMAT in evaluating high promise of success in the program. The department requires a minimum formula score of 1050 obtained from a combination of the total GMAT score and the grade point average for the last 60 semester ( 90 quarter) units attempted. The formula is calculated as follows:
Formula Score $=(200 \times$ Grade Point Average $)+$ Total GMAT score
To illustrate, if a candidate has a 3.20 grade point average for the last 60 units and a total GMAT score of 500 , the total formula score would be 1140.

Example Computation: 200(3.20) $+500=1140$
In this case, the candidate would meet the minimum formula score for admission.

In addition, applicants must have a minimum total score on the GMAT of 450 , and a score on the quantitative portion of the exam at the 20th percentile or above, and either a score on the verbal at the 20th percentile or above or at least a 4 on the analytical writing portion.
A candidate with a minimum formula score of 1000 who otherwise demonstrates high promise of success in the program may be considered by the department for alternative admission into the M.B.A. program. To be considered, the candidate must clearly demonstrate a record of at least five years of appropriate managerial experience since receipt of the bachelor's degree.
A candidate who is not accepted may appeal to the Graduate Program Committee for admission reconsideration. Such appeals are not routinely granted.

## Documentation Needed to Apply

The following documentation is required for consideration of acceptance into the M.B.A. Program. All documentation required for admission must be received by the University and department no later than the last day of the relevant application period.

1. A California State University Application for Graduate and Postbaccalaureate Admission, Part A and Part B. International students must submit the Sonoma State University International Student Application for Admission-Readmission (instead of the CSU standard form), and a copy of the Test of English as a Foreign Language (TOEFL) score with a minimum of 550 on the paper version or 213 on the computerized version. For more information on applying, visit the Office of Admissions and Records online or in person.
2. Two copies of official transcripts should be ordered from each college attended. All community college and university transcripts that provide evidence of completion of M.B.A. foundation courses must be included.
3. An official copy of the GMAT score should be ordered from:

GMAT
Educational Testing Service
PO Box 6101
Princeton, NJ 08541-6101
Testing sites for the GMAT and preparation materials can be obtained at this website: http://www.MBA.com/MBA.

The documents detailed in items 1 and 2 above must be sent to:
Office of Admissions and Records
Sonoma State University
1801 East Cotati Avenue
Rohnert Park, CA 94928-3609
The GMAT score, item 3 above, should be sent directly to:
Director of M.B.A. Programs
School of Business and Economics
Department of Business Administration
Sonoma State University
1801 East Cotati Avenue
Rohnert Park, CA 94928-3609
(707) 664-2377

Students who are currently eligible to enroll in classes at Sonoma State University in postbaccalaureate status may apply for admission to the M.B.A. program directly to the M.B.A. Coordinator. A current copy of Part A and B of the California State University Graduate and Postbaccalaureate Admission form will be required as well as a GMAT score.

## Graduate Student Status

A candidate admitted into the M.B.A. program will be admitted in one of two categories:

- Conditionally Classified Graduate Status. A student admitted to the M.B.A. program as a Conditionally Classified Graduate Student can take only foundation courses. This student may not take M.B.A. required or elective courses without permission of the Director of M.B.A. Programs. A student who begins as a Conditionally Classified Graduate Student will be eligible
for advancement to Classified Graduate Status upon successful completion of the foundation courses. Such a request should be submitted to the Director of M.B.A. Programs.
- Classified Graduate Status. A student admitted to the M.B.A. program as a Classified Graduate Student will have completed the foundation courses at the time of admission. This student may take M.B.A. required or elective courses.


## Admissions Process

The Office of Admissions and Records performs the initial evaluation of the application and transcripts and determines eligibility for admission to the University. If the candidate is not eligible for admission to the University, the candidate is notified and the process stops.

If the candidate is eligible for admission to the University, Part B of the application along with a copy of the transcripts is forwarded to the Director of M.B.A. Programs for the department recommendation. When the GMAT score is received, eligibility for admission to the M.B.A. program is determined and a recommendation for status of admission is returned to the Office of Admissions and Records, which will notify the candidate of the results.

Students who have not taken the GMAT will not be accepted for entrance into the program.

## Transfer Credits

A maximum of 6 units of transferred graduate level work may be used to satisfy the 30 units needed for the degree plan. Transfer courses will usually be accepted only from AACSB accredited universities. Transfer courses must be approved by the Director of M.B.A. Programs. Be sure to get approval for transfer courses prior to taking them.

## Eligibility for M.B.A. Courses

Courses offered in the M.B.A. program have restricted enrollment.

- For M.B.A. foundation courses, a student must be at least a Conditionally Classified M.B.A. student or a Classified Graduate student in another graduate program at the University or obtain written permission from the Director of M.B.A. Programs.
- For M.B.A. required or elective courses, a student must be a Classified M.B.A. student or a Classified Graduate student in another graduate program at the University or obtain written permission from the Director of M.B.A. Programs.


## Readmission

Students taking more than one semester off must reapply and meet current admission standards as presented above. In addition, the GMAT used to determine that admission can not be more than 5 years old. Students readmitted may have to recertify courses. Recertification is necessary for any course that will be more than 7 years old the semester the degree is granted.

## M.B.A. Program Curriculum with a General Concentration

The M.B.A. program consists of the following set of courses:

- M.B.A. foundation courses (32 semester units)
- M.B.A. required courses ( 21 semester units)
- M.B.A. elective courses (9 semester units)

A student who has completed the M.B.A. foundation courses (see below) prior to admission need only complete the M.B.A. required and elective courses (a total of 30 semester units).

## M.B.A. Foundation Courses (32 units)

The M.B.A. foundation courses provide the fundamental knowledge of business principles to prepare students for the study of business at the graduate level. The foundation courses include the following:

BUS 230A and 230B 8
BUS 344 Organizational Behavior 4
BUS 360 Introduction to Marketing 4
BUS 370 Introduction to Managerial Finance 4
BUS 211 Business Statistics 4
ECON 204 and 205 Introduction to Economics 8
Foundation courses may be waived for competencies demonstrated by the undergraduate courses or their equivalent listed above or by examination. All courses listed at the 200 level may be taken at a junior college. All courses listed at the 300 level must be taken at a four-year institution at the upper-division level. If acceptable equivalents of these courses have been taken at another institution, but the total units earned do not sum to 30 semester units, the student must take supplementary business courses to achieve the 30-unit minimum. A student needing one or more foundation courses will be admitted as a Conditionally Classified Student.

## M.B.A. Required Courses (21 units)

As the title signifies, the M.B.A. required courses are a cluster of graduate business courses that must be taken by all students. These 3-unit courses are intended to provide the graduate with those skills necessary to become an effective leader and manager in today's business environment. The required courses include the following:

BUS 516 Seminar in Operations Management 3
BUS 519 Management Information Systems 3
BUS 530 Financial Statement Analysis 3
BUS 540 Strategic Human Resource Management 3
BUS 560 Seminar in Marketing Management 3
BUS 570 Seminar in Managerial Finance 3
BUS 591 Seminar in Strategic Management
or BUS 592 Entrepreneurship and New Venture Creation

## M.B.A. Elective Courses (9 Units)

An M.B.A. student must complete 9 units of elective courses to graduate. Elective courses are typically worth 3 units each.

BUS 550 Seminar in Organizational Behavior and Management Theory
BUS 552 Leadership and Team Building
BUS 554 Social Entrepreneurship
BUS 559 Seminar in Advanced Management Topics
BUS 581 Research Methods for Managers
BUS 593 Seminar in International Management
BUS 595 Special Studies in Business Administration
BUS 596 Graduate Internship
BUS 599 Master's Degree Directed Research

## Analytical Writing Requirement

All candidates entering SSU as graduate students who do not score at least 4.00 on the analytical writing portion of the GMAT must pass the CSU Written English Proficiency Test (WEPT) either during their first semester or before completing the foundation courses.

## Transfer Credits

Up to 6 units of approved graduate level work may be transferred to meet part of the 30 units for the M.B.A.. Graduate courses equivalent to our foundation courses will not be accepted to meet elective or required M.B.A. courses. Transfer credits will normally be accepted only from AACSB accredited universities. Transfer courses must be approved by the M.B.A. Coordinator. Be sure to get approval prior to taking any transfer courses.

## Grades

All courses applied to the program must be completed with an overall GPA of 3.00 , and no course for which a final grade below $C$ is assigned may be used to satisfy this requirement. Graduate programs must be completed in no more than 7 years, which is computed as 14 semesters.

## Culminating Project

All candidates for the masters in business administration must complete a culminating project. The culminating project will be a group project completed as part of the capstone course (BUS 591 or BUS 592). This culminating project should show evidence of originality and independent thinking. A project report and public defense of the project are required.

## M.B.A. Program Curriculum with a Concentration in Wine Business

The M.B.A. in wine business consists of the following set of courses:

- M.B.A. foundation courses ( 32 semester units)
- Wine Business M.B.A. required courses ( 24 semester units)
- Wine Business M.B.A. elective courses ( 6 semester units)

A student who has completed the M.B.A. foundation courses (see below) or their equivalents prior to admission need only complete the Wine Business M.B.A. required and elective courses (a total of 30 semester units).

## M.B.A. Foundation Courses (32 units)

The M.B.A. foundation courses provide the fundamental knowledge of business principles to prepare students for the study of business at the graduate level. This set of courses is taken at the undergraduate level. The foundation courses include the following:

BUS 230A and 230B Principles of Accounting 8
BUS 344 Organizational Behavior 4
BUS 360 Introduction to Marketing 4
BUS 370 Introduction to Managerial Finance 4
BUS 211 Business Statistics 4
ECON 204 and 205 Introduction to Economics 8
Foundation courses may be waived for competencies demonstrated by the undergraduate courses or their equivalents listed above or by examination. All courses listed at the 200 level may be taken at a junior college. All courses listed at the 300 level must be taken at a four-year institution at the upper-division level. If acceptable equivalents of these courses have been taken at another institution, but the total units earned do not sum to 30 semester units, the student must take supplementary business courses to achieve the 30-unit minimum. A student needing one or more foundation courses will be admitted as a Conditionally Classified Student.

## Wine Business M.B.A. Required Courses (24 units)

As the title signifies, the required courses for the Wine Business M.B.A. are a cluster of graduate business courses that must be taken by all students in the Wine Business M.B.A.. These 3-unit courses are intended to provide the graduate with those skills necessary to become an effective leader and manager in today's business environment. The required courses include the following:

BUS 516 Seminar in Operations Management
BUS 519 Management Information Systems
BUS 530 Financial Statement Analysis
BUS 540 Strategic Human Resource Management
BUS 545W Global Wine Business
BUS 560 Seminar in Marketing Management
BUS 570 Seminar in Managerial Finance
BUS 591 Seminar in Strategic Management
or BUS 592 Entrepreneurship and New Venture Creation

## Wine Business M.B.A. Elective Courses ( 6 units)

A Wine Business M.B.A. student must complete 6 units of Wine Business M.B.A. elective courses to graduate. Elective courses are typically worth 3 units each. All directed studies and internships in the Wine M.B.A. concentration (BUS 595, 596, and 599) are required to focus on wine business related topics.

BUS 555W Sustainability in the Wine and Hospitality Industry
BUS 565W Marketing and Sales Strategies for Wine
BUS 595 Special Studies in Business Administration
BUS 596 Graduate Internship
BUS 599 Master's Degree Directed Research

## Wine M.B.A. Program Special Requirements

## Analytical Writing Requirement

All candidates entering SSU as graduate students who do not score at least 4.00 on the analytical writing portion of the GMAT must pass the CSU Written English Proficiency Test (WEPT) either during their first semester or before completing the foundation courses.

## Transfer Credits

Up to 6 units of approved graduate-level work may be transferred to meet part of the 30 units for the M.B.A.. Graduate courses equivalent to our foundation courses will not be accepted to meet elective or required M.B.A. courses. Transfer credits will normally only be accepted from AACSB-accredited universities. Transfer courses must be approved by the Director of M.B.A. Programs. Be sure to get approval prior to taking any transfer courses.

## Grades

All courses applied to the program must be completed with an overall GPA of 3.00 , and no course for which a final grade below C is assigned may be used to satisfy this requirement. Graduate programs must be completed in no more than 7 years, which is computed as 14 semesters.

## Wine Industry Experience

All candidates for the M.B.A. program in Wine Business will be expected to have completed 24 units of wine-related coursework or 24 months of wine industry work experience, or any combination thereof, before being admissible to the M.B.A. program in Wine Business.

## Culminating Project

All candidates for the masters in business administration with a concentration in Wine Business must complete a culminating project. The culminating project will be a group project completed as part of the capstone course (BUS 591 or BUS 592). This culminating project should be a faculty-approved topic relating to Wine Business and show evidence of originality and independent thinking. A project report and public defense of the project are required.

## Executive Master of Business Administration

The EMBA, designed for professionals already advanced or poised for advancement in their career, consists of fourteen courses in a cohort-style, modular curriculum, beginning and ending with assessing students as leaders, not just managers. The first module is a skills-driven set of courses, starting with financial statement analysis, marketing, production and human resource management, similar to the current M.B.A. program but adding how to use these skills to manage multiple functional areas of business. During the first module, there is an off-site, leadership development experience. The second module is about reacting to external shocks and optimizing the firm's infrastructure the second module's global business course and includes international travel and learning as a cocurricular exercise. The third module consists of elective courses. The final module revisits leadership and strategic planning as foci of the EMBA program.

## Executive M.B.A. Required Courses (30 units)

The Executive M.B.A. consists of the following specific courses. All students must take all the courses listed below which are scheduled in modules for the given cohort.

BUS 516E Operations Management Strategies
BUS 519E Strategic Networking and Information Management
BUS 530E Financial Statement Analysis for Leaders
BUS 540E Strategic Human Resource Leadership
BUS 552E Leadership Intelligence
BUS 554E Social Entrepreneurship and Leadership
BUS 560E Strategic Marketing Management
BUS 565E Cohort-Specific Elective
BUS 570E Financial Markets and Business Strategy
BUS 581E Analyzing Business Research
BUS 591E Strategy in Practice
BUS 592E Putting It All Together: Business Policy and Strategy
BUS 593E Global Business Operations: "The World is Flat"
BUS 590E Leading Change in Organizations

## Admissions Information

The Executive M.B.A. is a self-support program that is run in conjunction with the School of Extended Education. Some special admissions requirements and application procedures apply.

For detailed information please visit the EMBA website at www. sonoma.edu/sbe/emba

## CAREER MINORS

## Programs Offered

Career Minor in Arts Management

Career Minor in Health Systems Organizations
Career Minor in Women's Health
The career minors program allows students from a variety of majors to pursue a coherent sequence of courses in order to acquire insight into the ways the undergraduate degree may be applied in particular careers. Each career minor culminates in an internship giving the student practical experience in the field.

Information about a career minor may be obtained from the faculty advisor. Students interested in pursuing a career minor should plan well in advance in order to integrate the coursework into their plan of study.

## Career Minor in Arts Management

The career minor in arts management provides students of the visual arts with education, training, and experience in the practical, administrative side of their field. Art history and art studio majors completing this career minor will be in much stronger positions to find work and support themselves in fields within or closely related to their majors. The career minor in arts management may also be combined with any other major, provided that the student also completes at least a minor in art history or art studio.

Internships are available at local and regional art galleries, museums, nonprofit organizations, and other groups that provide services in the arts.

## Program Advisor

Michael Schwager, Art Gallery
Art Building 106
(707) 664-2720

## Requirements for the Career Minor In Arts Management

To earn the career minor in arts management, students must complete the following 21 units:
ARTH 312 Principles of Arts Management 3
ARTH 494 Gallery and Museum Methods
ARTH 499 Internship
Business, computer, or other related courses to be determined by the program advisor

## Total units in the minor core

Students in the arts management career minor must also complete at least a minor in either art history or art studio.

## Career Minor in Health Systems Organizations

The health systems organizations career minor is an interdisciplinary program that provides students with an opportunity to focus on
either of two significant dimensions of health care: technical and managerial problems, or preparation for direct service. The minor outlines a course of study within a liberal arts framework that provides each student with a basic understanding of: 1) health systems as significant social, cultural, and economic institutions within society; 2) cultural relativity in views of health and illness, and 3) the social and psychological implications for those who are served by health systems.

The supporting courses will be chosen with the assistance of the faculty advisor to prepare the student for specific career objectives. The health systems organizations minor complements a number of traditional majors, such as business administration, nursing, psychology, sociology, AMCS, and political science, in addition to programs in gerontology, women's studies, and medical anthropology. This career minor will increase the employment opportunities in the health field of students from the above majors and programs. The minor also provides an excellent background for those who plan to obtain graduate professional training in fields such as medicine, social work, and public health.

## Program Advisor

Susan Hillier Ferreira, Gerontology/Psychology
Stevenson Hall 3075
(707) 664-2411

## Minor Core Requirements

Course selection is pending; please see advisor for details.
AMCS 432 Health and Culture 4
GERN/SOCI 452 Health Care and Illness 4
GERN 499 Internship 4
Total units in the minor core

## Minor Electives

Students must consult with faculty advisors to select 8 units of related elective course work.

Total units in minor electives
Total units in the minor

## Career Minor in Women's Health

Women's health is a large and growing area of research and policy interest in the United States. The curriculum is organized toward care and other settings. The program is highly suitable for those interested, for example, in careers as nurses, physicians, counselors, therapists, public health workers, research analysts, and policy makers.

The career minor in women's health is designed to provide students with interdisciplinary course work, training, and work experience in the politics, practice, and experience of women's health. Career needs of both health care providers and liberal arts and sciences majors are addressed by the program.

## Program Advisor

Women's and Gender Studies
Rachel Carson Hall 18, (707) 664-2840

## Minor Core Requirements

WGS 280 Women's Bodies: Health and Image 3
NURS 480 Sexuality, Health, and Society (3) or
WGS 350 Gender, Sexuality and Family 3
Practical Application ..... 3-4
WGS 499 Internship in Women's Health Setting (4)

Prerequisite: senior standing or
NURS 425 Senior Clinical Study (Prerequisite: nursing major. Must choose a setting related to women's health)

Total units in the minor core

## Electives

All electives must be health (including mental health) related. When the health course does not explicitly deal with women's health, students are expected to do their term papers and projects on women's health issues and to be prepared to share these course materials with the program coordinator.

## Suggested Electives

AMCS 432 Health and Culture 3
GEOG 396 Medical Geography 3
GERN 300 Basic Gerontology 3
GERN 408 Transitions in Adult Development 4
NURS 340 Health and Illness in the Expanding Family 4
NURS 360 Community Health Nursing 3
PSY 404/WGS 330 Psychology of Women 4
PSY 454 Biofeedback and Somatic Psychology 4
SOCI 452 Health Care and IIIness (cross-listed as GERN 452) 4
WGS 301 Women's Health Lecture Series 1-2
WGS 440/SOCl 440 Sociology of Reproduction 4
WGS/NURS 495 Special Study Research on Women's Health 1-4
Total units in electives $\quad 10-11$
Total units required in the minor 20

## CHEMISTRY

DEPARTMENT OFFICE<br>Darwin Hall 300<br>(707) 664-2119<br>www.sonoma.edu/chemistry<br>DEPARTMENT CHAIR<br>Jennifer Whiles Lillig<br>ADMINISTRATIVE COORDINATOR<br>Cathi Cari-Shudde

## Faculty

Steven Farmer
Jon M. Fukuto
Jennifer Whiles Lillig
Mark J. Perri
Meng-Chih Su
Carmen F. Works

## Programs Offered

Bachelor of Science in Chemistry (certified by the American Chemical Society)<br>Bachelor of Arts in Chemistry<br>Bachelor of Science in Biochemistry<br>Minor in Chemistry<br>Teaching Credential Preparation

Chemistry is the study of matter, its properties, and how it changes. An understanding of chemical principles is required to fully understand most scientific disciplines such as biology, medicine, physics, environmental science, geology, materials science, pharmaceuticals, agriculture, forensic science, most branches of engineering, and even studio art. Chemists not only study molecules that nature provides but also synthesize new molecules to be used in many of these fields.

The department offers both bachelor of arts and bachelor of science degrees. Both degrees provide students with a solid chemical foundation to prepare them for graduate school, professional school, or the workforce. The B.S. degree requires more science coursework, while the B.A. allows more flexibility for other academic interests. The B.S. in biochemistry is designed for students with an interest in the biological aspects of chemistry and the pre-health professions.

## Careers in Chemistry

Sonoma State University is fortunate to be situated within the greater Bay Area, which is rapidly becoming a leading area for research in disciplines such as biotechnology, pharmaceuticals, materials science, and proteomics. Sonoma State graduates have a high success
rate for acceptance into advanced degree programs in chemistry and biochemistry; medical, dental, and veterinary schools; cell and molecular biology; and materials science. They have also entered the job market in a variety of careers, including government agencies (FBI, forensics), technical writing, chemical and biochemical research, cosmetics and perfumes, space chemistry, teaching at all levels, medical technology, pharmaceuticals, patent law, materials research, consulting, and applications of chemistry in business.

Students seeking teaching credentials may elect chemistry as their major within the teaching credential program in science.

The small size and educational philosophy of the department encourage students to develop close relationships with other students, faculty, and staff. Coursework and individual research projects place an emphasis on laboratory experiences in which students are expected to become familiar with a variety of techniques and instruments. In their junior year, students participate in the "Senior Experience" to further prepare themselves for entry into industry or graduate education. In 2006, the department returned to the newly remodeled Darwin Hall, equipped with new lower-division teaching laboratories and facilities for advanced laboratory courses and undergraduate research. Our laboratories are equipped with many modern, computerized instruments that include ultraviolet, visible, infrared, atomic absorption, and fluorescence spectrophotometers; a nuclear magnetic resonance spectrometer; high-pressure liquid, gas, and ion exchange chromatographs; and a gas chromatograph with mass spectrometer detector.

## Bachelor of Science in Chemistry (Certified by the American Chemical Society)

The B.S. degree provides thorough preparation for students who wish to pursue advanced degrees in the chemical sciences, go to professional school, or work as chemists in industry. All courses in the major core, major electives, and supporting courses must be taken in the traditional grading mode (A-F). Transcripts will be noted as approved by the American Chemical Society.
Please see the current approved curriculum on the SSU official catalog web page.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | 41 |
| Supporting courses | 19 |
| Electives | 9 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Major Core Requirements

CHEM 115AB or CHEM 125AB* General Chemistry
(10 units, 4 in the major core, 6 in general education (GE B1 \& B3) 4
CHEM 255 Quantitative Analysis* 4
CHEM 310AB Physical Chemistry 6
CHEM 316 Physical Chemistry Laboratory 2

CHEM 325 Inorganic Chemistry
CHEM 335 AB Organic Chemistry
CHEM 336 Organic Chemistry Laboratory
CHEM 401 Chemical Synthesis and Characterization I
CHEM 402 Chemical Synthesis and Characterization II
CHEM 445,446 , or 340 Biochemistry
CHEM 494 Undergraduate Research
CHEM 497 Research Seminar
Total units in the major core

## Supporting Courses

MATH 161 Calculus I (3 units, counted as GE B4)
MATH 211 Calculus II
MATH 261 Calculus (IV)
PHYS 114 Introduction to Physics I
PHYS 116 Introduction to Physics Laboratory I
PHYS 214 Introduction to Physics II
PHYS 216 Introduction to Physics Laboratory II
Total units in supporting courses

## GE Courses

$\begin{array}{ll}\text { CHEM 115AB } & 6 \\ \text { MATH } 161 & 3\end{array}$
Others $\quad$ Total units in GE courses

| Electives | 9 |
| :--- | ---: |
| Total units to graduate | 120 |

## Sample Four-Year Program for Bachelor of Science in Chemistry

FRESHMAN YEAR:: 32 Units

| Fall Semester (15 Units) | Spring Semester (17 Units) |
| :--- | ---: |
| CHEM 115A or CHEM 125A (5) | CHEM 115B or CHEM 125B (5) |
| MATH 161 (4) | MATH 211 (4) |
| GE (3) | PHYS 114 (4) |
| GE (3) | PHYS $116(1)$ |
|  | GE (3) |

SOPHOMORE YEAR:: 29 Units

| Fall Semester (14 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| CHEM 335 A (5) | CHEM 335B (3) |
| MATH 261 (4) | CHEM $336(2)$ |
| PHYS $214(4)$ | CHEM $255(4)^{*}$ |
| PHYS $216(1)$ | GE (3) |
|  | GE (3) |

JUNIOR YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| CHEM 445 (3) | CHEM 310B (3) |
| CHEM 310A (3) | CHEM 316 (2) |
| GE (3) | CHEM 494 (1) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
|  |  |
|  |  |
|  | Elective (3) |
|  |  |


| Fall Semester (13 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| CHEM 401 (3) | CHEM 402 (3) |
| CHEM 494 (1) | CHEM 497 (1) |
| GE (3) | CHEM 325 (3) |
| GE (3) | GE (3) |
| GE (3) | Elective (3) |
|  |  |
|  |  |
|  |  |
|  |  |
|  | TOTAL SEMESTER (3) |

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## Bachelor of Science in Biochemistry

The B.S. degree in biochemistry is appropriate for students interested in the medical fields, graduate study in chemistry or biochemistry, or employment in the biochemical, pharmaceutical or biotechnology industries. All courses in the major core, major electives and supporting courses must be taken in the traditional grading mode (A-F). Undergraduate research is required for the B.S. degree in biochemistry.

Please see the current approved curriculum on the SSU official catalog web page.
Degree Requirements Units
General education ..... 51
Major requirements ..... 40
Biology courses ..... 9
Supporting courses ..... 13-15
Electives ..... 5 or 7
Total units needed for graduation ..... 120
Major Core Requirements
CHEM 115 AB or CHEM 125 AB* General Chemistry(10 units, 4 in the major core, 6 in general education (GE B1 \& B3)4
CHEM 255 Quantitative Analysis* ..... 4
CHEM 310 AB Physical Chemistry ..... 6
CHEM 325 Inorganic Chemistry ..... 3
CHEM 335 AB Organic Chemistry ..... 8
CHEM 401 Instrumental Analysis and Chemical Synthesis ..... 3
CHEM 441 Biochemical Methods ..... 3
CHEM 445 Structural Biochemistry ..... 3
CHEM 446 Metabolic Biochemistry ..... 3
CHEM 494 Undergraduate Research ..... 2
CHEM 497 Research Seminar ..... 1
Total units in the major core ..... 40
Biology Courses
BIOL 123 Molecular and Cell Biology
(4 units, 1 in major core, 3 in general education B2) ..... 1
Choose 2 from the following:
BIOL 320 Molecular Genetics ..... 4
BIOL 321 Molecular Microbiology ..... 4
BIOL 324 Animal Physiology ..... 4
BIOL 325 Cell Biology ..... 4
BIOL 334 Plant Physiology ..... 4
BIOL 340 General Bacteriology ..... 4
BIOL 382 Parasitology ..... 4
BIOL 383 Virology ..... 4
BIOL 480 Immunology ..... 4
BIOL 544 Advanced Cell Biology ..... 4
or other courses approved by the Chemistry Department
Total units in Biology Courses9

## Supporting Courses

MATH 161 Calculus I (4 units, 1 in major core, 3 in GE B4) ..... 1
MATH 211 Calculus II ..... 4
PHYS 114 or 210A Physics I ..... 3-4
PHYS 116 or 209A Physics Laboratory I ..... 1
PHYS 214 or 210B Physics II ..... 3-4
PHYS 216 or 209B Physics Laboratory II ..... 1
Total units in Supporting Courses ..... 13-15
Strongly recommended:
Additional units in CHEM 494 Undergraduate Research ..... 1-6
GE Courses
CHEM 115 AB ..... 6
MATH 161 ..... 3
BIOL 123 ..... 3
Others ..... 39
Total units in GE courses ..... 51
Total units to graduate ..... 120

## Sample Four-Year Program for <br> Bachelor of Science in Biochemistry

FRESHMAN YEAR:: 28-29 Units

| Fall Semester (15 Units) | Spring Semester (13 or 14 Units) |
| :---: | :---: |
| CHEM 115A or CHEM 125A (5) | CHEM 115B or CHEM 125B (5) |
| MATH 161 (4) | MATH 211 (4) |
| GE (3) | PHYS 210A (3) or PHYS 114 (4) |
| GE (3) | PHYS 209A (1) or PHYS 116 (1) |
| SOPHOMORE YEAR:: 31-32 Units |  |
| Fall Semester (15 or 16 Units) | Spring Semester (16 Units) |
| CHEM 335A (5) | CHEM 335B (3) |
| PHYS 210B (3) or PHYS 214 (4) | CHEM 255 (4) * |
| PHYS 209B (1) or PHYS 216 (1) | GE (3) |
| GE (3) | GE (3) |
| Elective (2 or 4) Recommended: MATH 261 (4) | ) GE (3) |
| JUNIOR YEAR:: 31 Units |  |


| Fall Semester (16 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| CHEM 310A (3) | CHEM 310B (3) |
| CHEM 445 (4) | CHEM 446 (3) |
| BIOL 123 (4) | GE (3) |
| GE (3) | GE (3) |
| GE (3) | Elective (3) |
|  |  |
|  |  |


| Fall Semester (15 Units) | Spring Semester (14 Units) |
| :--- | ---: |
| CHEM 401 (3) | CHEM $497(1)$ |
| CHEM 494 (2) | CHEM $325(3)$ |
| BIOL elective upper-division (4) | CHEM 441 (3) |
| GE (3) | BIOL elective upper-division (4) |
| GE (3) | GE (3) |

TOTAL SEMESTER UNITS:: 120

* Students must place into the Chemistry 125 AB series by receiving an appropriate score on the chemistry placement exam. Quantitative Analysis (CHEM 255) is not required for students who have completed CHEM 125 A \& B. Students should replace these four units by completing the challenge by exam form upon completion of the series.


## Bachelor of Arts in Chemistry

The B.A. degree provides a solid foundation in chemistry so students have the same career options as those with the B.S. degree, while allowing students the flexibility to pursue other academic interests. All courses in the major core, major electives, and supporting courses must be taken in the traditional grading mode (A-F). It is highly recommended that students perform undergraduate research with a faculty member.

Please see the current approved curriculum on the SSU official catalog web page.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | 32 |
| Supporting courses | $13-15$ |
| Electives | $22-24$ |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Major Core Requirements

CHEM 115AB or CHEM 125AB* General Chemistry
( 10 units, 4 in the major core, 6 in general education (GE B1 \& B3) 4
CHEM 255 Quantitative Analysis* 4
CHEM 310AB Physical Chemistry 6
CHEM 316 Physical Chemistry Laboratory 2
CHEM 325 Inorganic Chemistry 3
CHEM 335AB Organic Chemistry 8
CHEM 401 Chemical Synthesis and Characterization I 3
CHEM 497 Research Seminar 1
Elective (upper-division chemistry) 1
Total units in the major core 32

## Supporting Courses

MATH 161 Calculus I (4 units, 1 in major core, 3 in GE B4) 1
MATH 211 Calculus II 4
PHYS 114 or 210A Physics I 3-4
PHYS 116 or 209A Physics Laboratory I 1
PHYS 214 or 210B Physics II 3-4
PHYS 216 or 209B Physics Laboratory II 1
Total units in supporting courses
13-15

## GE Courses

CHEM 115 AB 6
MATH 161 3
Others 42
Total units in GE courses 51
Electives 22-24
Total units to graduate 120
Recommended course
CHEM 494 Undergraduate Research

## Sample Four-Year Program for <br> Bachelor of Arts in Chemistry

FRESHMAN YEAR:: 31 or 32 Units

| Fall Semester (15 Units) | Spring Semester (16 or 17 Units) |
| :--- | ---: |
| CHEM 115A or CHEM 125A (5) | CHEM 115B or CHEM 125B (5) |
| MATH 161 (4) | MATH 211 (4) |
| GE (3) | PHYS 210 A (3) or PHYS 114 (4) |
| GE (3) | PHYS 209A (1) or PHYS 116 (1) |
|  |  |

## SOPHOMORE YEAR:: 29-31 Units



| Fall Semester (14 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| CHEM 401 (3) | CHEM 497 ( 1) |
| CHEM 494 (1) (Elective units) | CHEM 325 (3) |
| GE (3) | Elective (3) |
| GE (3) | Elective (3) |
| Chemistry Elective (1) | Elective (3) |
| Elective (3) | Elective (3) |

TOTAL SEMESTER UNITS:: 120

CHEM 336 (2 unit) and CHEM 494 (1 unit) are used as chemistry elective units.

* Students must place into the Chemistry 125 AB series by receiving an appropriate score on the chemistry placement exam. Quantitative Analysis (CHEM 255) is not required for students who have completed CHEM 125 A \& B. Students should replace these four units by completing the challenge by exam form upon completion of the series.


## Minor in Chemistry

Completion of the following SSU courses (or their equivalent): General Chemistry 115A and B (10 units), Quantitative Analysis 255 (4 units), Organic Chemistry: either 232 ( 5 units) or 335A (5 units), plus at least two additional upper-division classes for a total of 6 units. These additional upper-division classes must be taken in residence at SSU. Up to six units in chemistry 115A/B may count toward the General Education requirements in area B including the laboratory requirement.

## Secondary Education Teaching Credential Preparation

Chemistry students must demonstrate competence in the natural sciences by passing the subject matter examination required by the California Commission on Teacher Credentialing. One part of the examination will test breadth of knowledge in biology, chemistry, physics, astronomy, and geology. Another part of the examination will test depth of knowledge in a particular area, such as chemistry. The B.A. or B.S. degree in chemistry is recommended to prepare for the part of the examination that tests depth of knowledge in chemistry. For more information, please contact the Chemistry Department office, Darwin Hall 300, (707) 664-2119.

## CHICANO AND LATINO STUDIES

DEPARTMENT OFFICE
Nichols Hall 214
(707) 664-2369
www.sonoma.edu/cals/
DEPARTMENT CHAIR
Patricia Kim-Rajal
ADMINISTRATIVE COORDINATOR
Perce Smith

## Faculty

Patricia Kim-Rajal, Cultural Studies/Gender/Globalization
Ronald López, History/Politics
Daniel Malpica, Sociology/Immigration/Labor

## Lecturers

Marcia Ford, Daniel Lopez, Nora Wilkins

## Programs

Bachelor of Arts in Chicano and Latino Studies:
General Interdisciplinary Studies Track
Bachelor of Arts in Chicano and Latino Studies, Teacher-Preparation Track, CALS Liberal Studies Upper-Division SubjectMatter Preparation Program and Multiple-Subject Credential

Bachelor of Arts in Chicano and Latino Studies, TeacherPreparation Track—CALS Liberal Studies Upper-Division Subject-Matter Preparation Program

Minors in Chicano and Latino Studies, various emphases

## The CALS Major

The department of Chicano and Latino Studies (CALS) offers students an interdisciplinary curriculum that centers on the experiences of Chicanos and Latinos in many areas of contemporary American society, including politics, education, literature, the arts, and religion. The focus is on gaining greater insight into the relationship between historical, social, political, and ideological circumstances and Latina/o cultures and identities. The major considers the historical and contemporary experiences of Chicanos and Latinos in the United States in relation to literature, culture, political economics, social categories, and transnational migrations. Students are then free to choose, based on their interests and future career plans, a particular area of emphasis in which to complete their major electives. The flexibility of major requirements makes the CALS major ideally suited for students interested in pursuing a double major.

The overall curriculum provides majors with a solid basis in theoretical and applied analysis covering qualitative and critical methods
of study. Students develop the necessary analytical and methodological skills to better understand the emerging multicultural character of the Southwest and the key role Chicanos will increasingly play in the future, given the rapidly changing demographics of both the Southwest and the nation.

The department also offers a teacher preparation track designed to prepare students for courses and state exams that are part of the teaching credential certification process for elementary school teachers.

## Future Careers

Students in the major embark on a variety of career paths after graduation. CALS graduates are optimally prepared for work in both the public and private sectors. They are broadly trained, culturally astute professionals who are able to work with diverse populations and who can take on the challenges of many different careers. Students are encouraged to consider their future careers while still in the program and to choose electives in accordance with their plans. Students in the teacher-preparation track have been optimally prepared to pursue the coursework and testing necessary to obtain a multiple subjects teaching credential in California. Majors in the interdisciplinary studies track who focus on the study of language and culture often pursue careers in teaching, migrant and bilingual education, publishing, cultural centers or graduate study in art, literature, cultural studies, or ethnic studies. Students who choose a social studies emphasis will acquire a solid basis of knowledge for work in human resources, community development, public service or advocacy work, as well as further study in health services, social welfare, psychology, sociology and political sciences.

## How to pursue interest in the major

## Freshman Students

Enroll in CALS 219, The Latino Experience, which provides a foundation for interdisciplinary studies in this field and also satisfies area D-1 in the G.E. pattern.

## Transfer or Junior-level Students

Students who are considering the major are encouraged to enroll in CALS 339, CALS 432 or CALS 451 during their first semester at SSU. These courses offer an excellent introduction to the major and its interdisciplinary approach while fulfilling the upper-division and ethnic studies GE requirement.

## Bachelor of Arts in Chicano and Latino Studies

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | 40 |
| Second major/minor or electives | 29 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Courses suggested for students considering a CALS major:

CALS 339: Latinos and the U.S. Labor Market
CALS 432: Latinos in a Global Context
CALS 451: Chicano/Latino Humanisms

| Major Core Requirements | Units |
| :--- | ---: |
| CALS 350 Latino Cultural Studies | 4 |
| CALS 442 Race, Class \& Gender Among Latinos | 4 |
| CALS 445 Chicano/Latino History | 4 |
| CALS 458 Research and Methodologies | 4 |
| CALS 474 Major Authors in Chicano/Latino Literature | 4 |
| CALS 480 Latin American Migration to the United States | 4 |
| Total units in the major core | 24 |
| CALS Electives: Choose an additional 16 units from the following |  |
| courses for the general major.* |  |
| CALS 225 Spanish for Bilinguals (C3) | 4 |
| CALS 310 Chicano/Latino Folk Arts \& Crafts | 1 |
| CALS 314 Latin American Literature in English Translation (C2) | $3-4$ |
| CALS 339 Latinos and the US Labor Market (D1) | $3-4$ |
| CALS 352 Chicano/Latino Philosophy (C2) | 3 |
| CALS 366 Mexican Folk \& Traditional Dance | 1 |
| CALS 368 Chicano/Latino Music (C1) | 3 |
| CALS 374 Latino Literature (C2) | 3 |
| CALS 393 Chicano/Latino Cinema (C1) | 3 |
| CALS 400 Special Topics | 4 |
| CALS 403 Latino Youth \& Adolescents (E) | 4 |
| CALS 405 Latino Family | 4 |
| CALS 426 Sociolinguistics (C3) | 4 |
| CALS 432 Latinos in a Global Context (D5) | 4 |
| CALS 450 Chicano/Latino Children's Literature | 3 |
| CALS 451 Chicano/Latino Humanisms (C3) | 4 |
| CALS 456 Bilingual/Cross-Cultural Education | 4 |

All majors must complete a capstone project/paper during their senior year in one of the following classes: CALS 405, CALS 426, CALS 442, CALS 445, CALS 474, or CALS 480.
*CALS double-majors have the option of using two upper-division courses from outside the department toward the 40 units.

Advising Four-Year Plan for CALS Majors

FRESHMAN YEAR:: 32 Units

| Fall Semester (15-16 units) | Spring Semester (16 units) |
| :---: | :---: |
| ENGL 101 (A2) (3) | BIOL (B2) (3) |
| MATH (B4) (3) | CALS 219 (D1) (3) |
| ARTS GE (C1) (3) | PHIL 101 (A3) (3) |
| Physical Science GE (B1) (3) | HIST 201 (D2) (3) |
| Elective (Spanish is recommended) (4) | Elective (Spanish is recommended) (4) |
| SOPHOMORE YEAR:: 31-33 Units |  |
| Fall Semester (16-17 units) | Spring Semester (15 units) |
| HUMS 200 (A1) (3) | PHIL 120 or CALS 352(C3) (3) |
| ENGL or FL 214 or equiv, (C2) (3) | Physical Science GE (B3) (3) |
| POLS 200 (D4) (3) | Upper-division GE (D5) (3) |
| HIST 251 (D3) (3) | CALS 220 (C4) (3) |
| CALS 225 (4+1) or CALS elective | CALS 339 (3) or CALS elective |


| Fall Semester (15 units) | Spring Semester (15 units) |
| :---: | :---: |
| CALS 350 (4) | CALS 474 (4) |
| CALS 451 (C4) (4) | CALS elective (4) |
| CALS 403 (E1) (4) | CALS elective (4) |
| Elective or 2d major or minor (4) | Elective or 2d major or minor (4) |
| SENIOR YEAR:: 28-32 Units |  |
| Fall Semester (16 units) | Spring Semester (16 units) |
| CALS 458 (4) | CALS 445 (4) |
| CALS 480 (4) | CALS 442 (4) |
| Elective or 2d major or minor (4) | CALS elective (4) |
| Elective or 2d major or minor (4) | Elective or 2d major or minor (4) |

TOTAL SEMESTER UNITS FOR B.A. PROGRAM/CALS MAJOR:: 120-124

## Minor in Chicano and Latino Studies

Students are to select two courses minimum (8 units) from the CALS core, with additional classes selected from CALS electives (12 units). In some cases students may apply and transfer one course (only) from another department (likely their major) to the CALS minor.

The following two options for a specific emphasis for the CALS minor are often of interest:

## Social Science emphasis

CALS 339 or 432
CALS 405 or 442
CALS 445
CALS 458
CALS 395, CIP or Service Learning Project (optional)

## Spanish emphasis

CALS 225 (or Span 202) 4-5
One additional course in advanced-level Spanish required (up to two permitted), selected from the following: SPAN 301, SPAN 305, SPAN 307

Three or four classes selected from the following:
CALS 374, CALS 426, CALS 451, CALS 456, CALS 460, CALS 474

Total units required

## Spanish Language Proficiency

The CALS program encourages students to develop their Spanish language competencies. Proficiency in Spanish is a crucial skill for students who plan to become teachers, work in community services, go to graduate school, or do Chicano/Latino studies-related research.

## Subject-Matter (Teaching Credential) Preparation Programs

Students may choose from two CALS options in order to prepare for the teaching profession while completing the CALS major requirements. CALS majors may select from an integrated, four-year, fast-track program, where students receive both a CALS/Liberal studies degree and the Multiple-Subject Teaching Credential, or an upper-division CALS liberal studies subject-matter preparation track for transfer students or new majors.
Please refer to the Education section of catalog for information on teaching credential programs. For more information, review the University's special bulletin, Programs in Teacher Education.

## Integrated (four-year) Subject-Matter Preparation Program in Chicano and Latino Studies/Liberal Studies and Teaching Credential

This involves the acquisition of both the CALS bachelor of arts and the Multiple Subjects Credential in four years. It is a fast-track, state-approved program to provide for completion of a bachelor's degree and teaching credential in eight semesters.

Advising Plan for Four-Year Integrated Program

FRESHMAN YEAR:: 32 Units

| Fall Semester (16 Units) | Spring Semester (16 Units) |
| :---: | :---: |
| ENGL 101 (A2) (3) | BIOL 110 (B2) (4) |
| MATH 150 (B4) (3) | PHIL 101 (A3) (3) |
| ARTS GE (C1) (3) | HIST 201 (D2) (3) |
| Chemistry. Astronomy or Physics (B1) (3) | CALS 219 (C3) (3) |
| POLS 200 (D3) (3) | ENGL 200 (A1) (3) |
| CALS 310 (1) |  |
| SOPHOMORE YEAR:: 31 Units |  |
| Fall Semester (16 Units) | Spring Semester (16 Units) |
| Geology or Physical Geography (B3) (3) | HIST 251/HIST 252 (3) |
| EDMS 417 (D1) (3) | CALS 365 or 366 (1) |
| HIST 251/HIST 252 (D3) (3)* | CALS 442 (4) |
| CALS 403 or EDMS 420 (E) (3) | CALS 368 or CALS 479 (C1) (3) |
| CALS 458 (4) |  |
| GEOG 302 (D5) (3) |  |
| EDMS 470 (3) |  |

JUNIOR YEAR:: 32 Units

Fall Semester (16 Units)
CALS 350 (4)
Spring Semester (16 Units)

CALS 460 (3)
CALS 426 (4)
CALS 374 (C2) or CALS 450 (3)
EDMS 463 (3)
MATH 300A (3)
EDMS 476F \& EDMS 476S (4)

## SENIOR YEAR:: 35 Units

Fall Semester (17 Units)
Spring Semester (18 Units)
CALS 480 (4) EDMS 464 (2)
CALS 456 (4) EDMS 482S (2)
KIN 400 (3) CALS 445 (4)
EDMS 411 (3) EDMS 482F (10)
EDMS 475 (3)

TOTAL SEMESTER UNITS FOR B.A. PROGRAM AND CREDENTIAL:: 131
*Students need to take both sections of U.S. History in order to complete program requirements.

Notes:

1. Students need to take both sections of U.S. History in order to complete program requirements.
2. Students in the Integrated Program need to apply for admission to the credential program during November of the sophomore year.
3. Students must take the CBEST prior to the beginning of the junior year.
4. Students can use EDUC 250 or EDUC 339 or the new EMT Freshman Seminar as an elective and/or in lieu of CALS 395 to meet program field experience requirements.

## Upper-Division Subject Matter Preparation Program in Chicano and Latino Studies/Liberal Studies

This state-approved program is designed for new upper-division and transfer students and meets the subject matter preparation requirements for entry into the Multiple-Subject (Elementary) Teaching Credential.

## Sample Four-Year Program

FRESHMAN YEAR:: 31 Units

| Fall Semester (15 Units) | Spring Semester (16 Units) |
| :---: | :---: |
| ENGL 101 (A2) (3) | BIOL 110 (includes lab) (B2) (4) |
| MATH 150 (B4) (3) | PHIL 101 (D1) (3) |
| ARTS GE (C1) (3) | CALS 219 (3) |
| Chemistry. Astronomy or Physics (B1) (3) | HIST 201 (D2) (3) |
| POLS 200 (D3) (3) | ENGL 200 or AMCS 200 (3) |
| SOPHOMORE YEAR | 28-31 Units |

Fall Semester (14-15 Units)
Geology or Physical Geography (B3) (3)
CALS 350 (4)
CALS 225 (3) + lab (1) EDMS 417 (D1) (3)
CALS 310 (1) CALS 365 or 366 (1-2)
HIST 251 (D3) (3) CALS 374 (C2) or CALS 450 (3-4)
Electives (3-4)
CALS 442 (4)

JUNIOR YEAR:: 31 Units

| Fall Semester (17 Units) | Spring Semester (14 Units) |
| :--- | ---: |
| MATH 300A (3) | MATH 300B (3) |
| CALS 451 (C3) (4) | CALS 368 or CALS 479 (C1) (3) |
| CALS 458 (4) | GEOG 302 (D5) (4) |
| CALS 460 (3) | Electives (4) |
| KIN 400 (3) |  |
|  |  |
|  |  |
|  | SENIOR YEAR:: 30-31 Units |

Fall Semester (15-16 Units)
CALS 403 or EDMS 420 (E) (4)
Spring Semester (15 Units)

CALS 480 (4)
CALS 456 or 460 (3-4)
Elective or Concentration (4)

TOTAL SEMESTER UNITS FOR B.A. PROGRAM AND CREDENTIAL:: 120-124

## COMMUNICATION STUDIES

DEPARTMENT OFFICE

Nichols Hall 330
(707) 664-2149
www.sonoma.edu/communications/
DEPARTMENT CHAIR
Elizabeth Burch
ADMINISTRATIVE COORDINATOR
Brooke Tester

## Faculty

Melinda Barnard / Theory, Advertising, Public Relations, Quantitative Analysis, Children and Media
Ed Beebout / Broadcast Journalism, Broadcast Management
Elizabeth Burch / Ethics, Scriptwriting, Environmental Communication, International Communication
Marco Calavita / History, Theory, Criticism, Screenwriting, Film Analysis
Nate Campbell / Radio Broadcasting, Recording
Michael Litle / Film, Video, Criticism
Charles McAuley / Newspaper Production, Reporting
Jonah Raskin / Journalism, History, Law, Marketing
Janet Craddock / Public Relations

## Programs Offered

## Bachelor of Arts in Communication Studies

The communication studies major is an innovative, interdisciplinary program that prepares students for careers in the media or for advanced graduate study.

Communication studies coordinates three distinct approaches to the media: practical application, historical study, and critical analysis. Practical application combines basic training in equipment operation, communication skills, production design, organizational skills, and professional internship. Historical study focuses on the evolution of the mass media and the relationship of the mass media to society. Critical analysis explores media ethics and the analysis and evaluation of specific mediated texts using qualitative and quantitative methods.

Students are encouraged to develop a specific advisory plan with the assistance of a faculty advisor. Advisory plans, based on the student's specific interests, may focus on:

- General areas such as journalism, media criticism, or public relations;
- Media such as radio, television, and newspapers;
- Career roles such as television producer, sports announcer, or reporter; and
- Preparation for graduate school.

Students are required to take a senior-year internship. The department emphasizes internships that provide students with real-world insights into the media. The department has developed professional media internships with community organizations, radio and television stations, newspapers, magazines, public relations firms, and other media groups.
All on-campus media operate in conjunction with communication studies classes. On-campus media offer a variety of opportunities for students. They include the Star, the student newspaper; KSUN, an Internet radio station that can be heard at www.sonoma.edu/ ksun; and SSU-TV, the campus television station that provides news, information, and entertainment.

Students are also required to take Senior Seminar in which they complete a senior project. This project combines their academic training in the major with a real world application.

## Careers in Communication Studies

Graduates from the department find employment in the mass media and in the ever-growing field of communication. Some graduates find work by using their technical skills in radio, video, and computers. Others rely on their training and experience to find jobs in the broad field of public relations. They write for and edit newspapers and newsletters, and design brochures and flyers. They are photographers and are even employed by candidates running for public office. In addition, graduates design websites, edit films, produce documentaries, videotape weddings, record music, and serve as disc jockeys.

Past graduates have become lawyers and teachers, run employment agencies, are hired as fundraisers, private investigators, and work in law enforcement. Communication Studies graduates work in corporate or non-profit organizations doing sales, publicity, or marketing. Wherever communication takes place and whenever media are used, Communication Studies graduates can be found.

## Bachelor of Arts in Communication Studies

| Degree Requirements | Units |
| :--- | ---: |
| General Education | 51 |
| Major Requirements | 48 |
| University Electives | 21 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

Communication Studies is a high-demand major. Junior transfers are taken in the fall only. On-campus change of majors are limited by the number of students who can be served by the faculty and facilities of the program.

- Major Core: All students complete 28 units of required coursework.
- Skill Sequence: Students complete one Skill Sequence comprised of a 4-unit beginning and 4-unit advanced skill course.
- Major Electives: Students complete 12 units of COMS electives. Student may choose to work for one of the campus media outlets for their 12 units of electives.

| Core Courses (All Courses Are Required) | 28 Units |
| :--- | ---: |
| COMS 200 Principles of Mass Communication | 4 |
| COMS 202 Methods of Media Criticism | 4 |
| COMS 301 Communication Theory and Research (Junior status to register) | 4 |
| COMS 302 Media Ethics (Junior status to register) | 4 |
| COMS 315 Media Law (Senior status to register) | 4 |
| COMS 402 Senior Seminar (Senior status to register) | 4 |
| COMS 499 Senior Internship (Senior status to register) | 4 |
| Skill Sequences (1 sequence is required) | 8 Units |
| COMS 201 Storytelling Via Video | 4 |
| COMS 316 Advanced Video Production | 4 |
| COMS 210 Writing for the Media | 4 |
| COMS 318 Advanced Media Writing | 4 |
| COMS 265 Introduction to Radio Broadcasting | 4 |
| COMS 317 Advanced Broadcasting Techniques | 4 |
| COMS Electives (12 Units Required) | 42 |
|  | 12 |

## Four-Year Plan for Bachelor of Arts

 in Communications StudiesStudents start the major in fall of their Sophomore year. This plan does not identify the communication studies elective courses an individual student might take. A complete list of department approved electives is available in the department. Because the major has 4-unit classes, the distribution of units is uneven. Students may distribute their GE and University electives as they wish.

FRESHMAN YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| GE Area A2 (3) | GE Area A1 (3) |
| Mathematics (GE) (3) | GE Science: B1, B2, or B3 (3) |
| GE Area A3 (3) | University Elective (3) |
| GE (3) | GE Area D3 or D4 (3) |
| University Elective (3) | GE (3) |
|  |  |
| SOPHOMORE YEAR:: 28-31 Units |  |

Fall Semester (14 Units) Spring Semester (***14-17 Units)

| GE Science: B1,B2, or B3 (3) | GE (3) |
| :---: | :---: |
| GE Area D3 or D4 (3) | GE Science: B1, B2, or B3 (3) |
| COMS 200 (4) | COMS 202 (4) |
| COMS Beg. Skill Class (4) | COMS Adv. Skill Class (4) |
|  | GE ***Optional (3) |
| JUNIOR YEAR:: 33 Units |  |


| Fall Semester (16 Units) | Spring Semester (17 Units) |
| :--- | ---: |
| Upper-Division GE (3) | Upper-Division GE (3) |
| Upper-Division GE Area E (3) | GE (3) |
| University Elective/GE (3) | COMS Elective (4) |
| University Elective (3) | University Elective (3) |
| COMS 301/302 (4) | COMS 301/302 (4) |
|  |  |
| SENIOR YEAR:: 26-29 Units |  |


| Fall Semester (13 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| University Elective (3) | COMS 315** (4) |
| University Elective (3) | COMS 402** (4) |
| GE* (3) | COMS Electives (4) |
| COMS Elective (4) | COMS 499 (4) |
|  |  |
|  |  |
|  |  |
| *If not taken Sophomore year |  |
| ** Must be taken last semester. |  |
|  |  |

## COMPUTER SCIENCE

## DEPARTMENT OFFICE

Darwin Hall 116<br>(707) 664-2667<br>www.cs.sonoma.edu<br>DEPARTMENT CHAIR<br>Ali A. Kooshesh<br>ADMINISTRATIVE COORDINATOR<br>Jennifer Aaseth<br>TECHNICAL STAFF<br>Roger Mamer

## Faculty

Ali Kooshesh
George Ledin Jr.
B. Ravikumar

Suzanne Rivoire
Lynn Stauffer
Tia Watts

## Programs Offered

## Bachelor of Science in Computer Science

Minor in Computer Science

Computer science is the scientific study of computing devices, the software that drives them, and the computational tasks they are capable of performing. Computer scientists study both hardware and software; as with all sciences, each of these possesses both theoretical and applied components. Computing theory shares knowledge and techniques with the fields of mathematics, physics, engineering, philosophy, psychology, and linguistics. Its applications span the range of human endeavors: the physical life and social sciences; the literary, visual, and performing arts; law; government; recreation; and virtually every sector of the commercial world. Thus, computer science is by its very nature an interdisciplinary subject that offers both a solid unifying foundation for a liberal arts and sciences education, and valuable career skills.

The curriculum consists of a rigorous course of study in computer science and mathematics and provides the student with a thorough grounding in programming, fundamentals of computer organization, data structures, and algorithm design. It is designed to prepare students for careers in the computer industry and graduate work in computer science.
All courses submitted toward either major or minor requirements in the Computer Science Department must be taken for a letter grade (A-F). This includes electives in CS and all other courses taken to satisfy the major. This does not apply to courses that are challenged. Only those classes for which the student has received a C- or better may be used to satisfy prerequisite requirements. An
instructor may require the student to provide evidence of having met prerequisite requirements.

| Degree Requirements for a Bachelor of Science in Computer Science |  |
| :--- | ---: |
| General Education | $42-45$ units |
| (51 units, 6-9 covered by major requirements) |  |
| Computer Science Core | 49 units |
| Computer Science Electives | 9 units |
| Computer Science Capstone Requirement | 3 units |
| Required Supporting Courses | $10-12$ units |
| General Electives: | $6-8$ units |
| Total units needed for graduation: | $\mathbf{1 2 4}$ |

## Major Core Requirements

CS 115 Programming I (GE Area B3) 4
CS 210 Introduction to Unix 1
CS 215 Programming II 4
CS 242 Discrete Structures for Computer Science 4
CS 252 Introduction to Computer Organization 4
CS 315 Data Structures 4
CS 351 Computer Architecture 4
CS 355 Database Management Systems Design 4
CS 370 Software Design and Development 4
CS 415 Algorithm Analysis 4
CS 450 Operating Systems 4
CS 454 Theory of Computation 4
CS 460 Programming Languages 4
Total units in major core 49

## Computer Science Electives

Choose 9 units of upper-division CS electives (see list below). No more than 3 units can be satisfied by a combination of CS 349, 390, 495, and 497.
CS 340 Computer Security and Malware 3
CS 349 Problem Solving in a Team Environment 1
CS 360 Object-Oriented Programming 3
CS 365 Computer Networking and the Internet 3
CS 375 Computer Graphics 3
CS 385 Selected Topics 1-4*
CS 390 Computer Science Colloquium 1
CS 452 Compiler Design and Construction 3
CS 465 Data Communications 3
CS 480 Artificial Intelligence 3
CS 495 Special Studies 1-4
CS 496 Senior Seminar 1-4
CS 497 Internship
*Selected topics courses include Bioinformatics, Data Compression, Computer Game Development, Parallel and Distributed Computing, Wireless Networks, Mobile Application Development, and other current topics in computer science.

Total units in major electives

## CS Capstone Requirement

## One of the following courses:

CS 470 Advanced Software Design Project 3
CS 495 Special Studies (requires instructor approval) 3
Total units in capstone requirement

## Required Supporting Courses

MATH 161 Differential and Integral Calculus I (GE Area B4)

Two additional courses from the following:
MATH 165 Elementary Statistics 4
MATH 211 Differential and Integral Calculus II 4
MATH 222 Elementary Applied Linear Algebra 3
MATH 241 Differential Equations with Linear Algebra 4
MATH 306 Number Theory
MATH 316 Graph Theory and Combinatorics 3
MATH 352 Numerical Analysis 3
MATH 416 Graph Theory and Combinatorics 3
MATH 430 Linear Systems Theory 3
MATH 470 Mathematical Models 3
PHYS 214 Introduction to Physics II 4
(Prerequisite PHYS 114, GE Area B1)
Or other by arrangement with the CS Department

| Total units in other required courses | $10-12$ |
| ---: | ---: |
| Total units in the major | $71-73$ |

## Minor in Computer Science

Students electing this minor will be prepared for careers in business application programming, scientific application programming, computer equipment sales, as field engineers, and as data processing managers among the myriad job opportunities associated with the computer field. Approval of the minor curriculum should be obtained by the junior year at the latest in order that the minor may be properly planned.

## Minor Core Requirements

CS 115 Programming I 4
CS 210 Introduction to UNIX 1
CS 215 Programming II 4
Total units in minor core
9

## Minor Electives

Choose 11 units of CS major courses (listed under Major Core Requirements and Computer Science Electives) of which 6 units must be upper-division. No more than 2 units in any combination of CS $349,390,495$, and 497 can be applied toward the minor.

Total units in minor electives
Total units in the minor
Sample Four-Year Plan for
Bachelor of Science in Computer Science

FRESHMAN YEAR:: 28 Units

| Fall Semester (13 Units) | Spring Semester (15 Units) |
| :---: | :---: |
| CS 115 (GE-B3) (4) | CS 210 (1) |
| GE (3), GE (3), GE (3) | CS 215 (4) |
|  | MATH 161 (GE-B4) (4) |
|  | GE (3), GE (3) |
| SOPHOMORE YEAR:: 30-31 Units |  |
| Fall Semester (16/17 Units) | Spring Semester (14 Units) |
| CS 242 (4) | CS 252 (4) |
| Supporting Course in MATH/PHYS (3/4) | CS 315 (4) |
| GE (3), GE (3), GE (3) | GE (3), GE (3) |

JUNIOR YEAR:: 33-34 Units

| Fall Semester (16/17 Units) | Spring Semester (17 Units) |
| :--- | ---: |
| CS 351 (4) | CS $355(4)$ |
| Supporting Course in MATH/PHYS (3/4) | CS 370 (4) |
| CS Elective (3) | CS Elective (3) |
| GE (3), GE (3) | Upper-division GE (3) |
|  | General Elective (3) |

SENIOR YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| CS 450 (4) | CS 415 (4) |
| CS 454 (4) | CS $470(3)$ |
| CS 460 (4) |  |
| Upper-division GE (3) | Upper-division GE (3) <br> General Electives (3-5*) <br> *to total 124 units |
|  | TOTAL UNITS:: 124 |

## DEPARTMENT OFFICE

Nichols Hall 220
(707) 664-2544
www.sonoma.edu/counseling
DEPARTMENT CHAIR
Adam Hill
ADMINISTRATIVE COORDINATOR
Stephanie Wilkinson

## Faculty

Maureen Buckley
Adam Hill
Jayamala Madathil
Julie Shulman
Adam Zagelbaum

## Programs Offered

Master of Arts in Counseling<br>Option I Community Counseling: Marriage and Family Therapy (MFT)<br>Option II School Counseling: Pupil Personnel Services<br>Additional Programs<br>Practicum and Internship Facility (offering counseling services to the community) MEAP (Migrant Education Advisor Program)

The 60-unit graduate program in counseling offers two professional training options: Option I prepares students for Community Counseling/ Marriage and Family Therapy licensure (CC/MFT), and Option II prepares students for the School Counseling and the Pupil Personnel Services Credential (SC/PPSC). The program relies heavily on interpersonal skill training and field experience, beginning during the first semester and culminating with an intensive supervised internship/field experience in some aspect of counseling, permitting the integration of theory, research, and practical application. The Department is prepared to assist CC/ MFT students in obtaining field placements relevant to their projected professional goals. These placements include, but are not limited to: marriage and family counseling agencies, mental health clinics, counseling centers, public schools, college-level counseling services, and the on-campus Practicum and Internship Facility. For the school counseling program, field placements are at a minimum of two of the three K-12 levels: elementary school, middle school, and high school.
Special characteristics of the program include the following:

1. Early observation of and involvement in actual counseling settings;
2. Development of a core of knowledge and experience in both individual and group counseling theory and practice;
3. Encouragement in the development and maintenance of individual counseling styles;
4. Commitment to self-exploration and personal growth through participation in peer counseling, individual counseling, and group experiences. This aspect of the program is seen as crucial to the development of adequate counseling skills and is given special consideration by the faculty as part of its evaluation of student readiness to undertake internship responsibilities; and
5. Strong emphasis on acknowledging and appreciating diversity.

In sum, the training emphasis in the program is to integrate theory, practical experience, and personal learning rather than exposing students to a piecemeal professional preparation. To varying degrees, students will find that in most of their course work the faculty expects students to be able to articulate their unique and personal histories, including their relationships with family, peers, and significant others, for it is our belief that self-understanding is crucial in effective counseling.
The effort is to establish a sound foundation in the student for a lifetime of continued professional growth - a foundation which permits confident movement into an entry-level counseling position but which does not pretend to be more. Within the compass of a 60 -unit program, the faculty sees such a goal as attainable and eminently worthwhile.
The faculty is committed to the idea that counselors of the future should take an active role in helping to shape the social/environmental milieu in which they will work. While the faculty recognizes how difficult this task may be in specific instances and areas, it sees the counselor as one who actively participates in the life of an organization, not as a submissive keeper of the status quo or an unseeing iconoclast, but as a sensitive and perceptive voice representing individual freedom and human values. Leadership skills, and the skills necessary to facilitate change, are stressed in this program.
The master's program may be completed within two academic years; however, some students with jobs and/or family responsibilities may wish to move more slowly. Resources permitting, efforts will be made to accommodate individual patterns. For most students, 8 units per semester will be considered a minimal number. It should be stressed that individual program paths should be planned very carefully since many courses will not be offered every semester.
The Council for Accreditation of Counseling and Related Educational Programs (CACREP), a specialized accrediting body recognized by the Council on Recognition of Postsecondary Accreditation (COPA), has conferred accreditation to the Counseling Department at Sonoma State University in both Community Counseling and School Counseling. The School Counseling program is accredited by the California Commission on Teacher Credentialing (CCTC); in addition, the School Counseling program is accredited by the National Council for Accreditation of

Teacher Education (NCATE). The Community Counseling program is not designed to meet criteria for CACREP's Marital, Couple, and Family Counseling/Therapy specialization; however, it is accredited by the Board of Behavioral Science for training required for licensure as a Marriage and Family Therapist in California.

A student who has not been formally admitted to the Counseling Department may take no more than 12 units and only in the following course offerings: COUN 501, 502A/B, 503, 511, 520, 524, 525, 527A/B, 528A/B, 535, 545, and 582A/B. Admission to individual courses in no way implies admission to the master's degree program or to the PPSC program. You may take these courses through Open University. Call Extended Education for more information (664-2394).

## Master of Arts in Counseling

## Admission Requirements

1. A bachelor's degree, preferably in the behavioral sciences and with sound preparation in psychology, or in education for the School Counseling option, is required.
2. For both options, a course in personality theory and an undergraduate or graduate level statistics course that includes analysis of variance is required; in addition, a course in abnormal psychology is required for the MFT/Community Counseling option. A course in child development and documentation that you have taken the CBEST by the start of your first semester (www.cbest.nesinc.com), is required for the PPS School Counseling option.
3. Applicants are strongly encouraged to have acquired an undergraduate-level of understanding of human development, family/educational systems, cognitive-behavioral applications, and client-centered therapy. This introductory knowledge base may be acquired by enrolling in relevant coursework or by undertaking thoughtful reading on these topics.
4. A 3.00 (B) grade point average in the last two years of undergraduate work is required. Applicants who satisfy all other requirements may petition the University for waiver of this requirement. It should be emphasized that such a waiver is not automatically granted.
5. Completion of counseling department application forms, in addition to those required by the University.
6. A personal interview and group interview is required for applicants considered for final review. In these interviews, questions may involve personal disclosure deemed relevant by the faculty for determining the applicant's readiness for beginning training for a career in counseling. All disclosures are held in strict confidence.

Departmental admissions committees have found the following criteria meaningful, or even indispensable for applicants:
a. The ability to handle academic work of graduate-level rigor,
generally as evidenced by previous academic performance;
b. Counseling-relevant work experience (paid or volunteer); and
c. Global personality assessment-suitability for a career in a helping profession, as evidenced by quality of interview, personal data, autobiography, and letters of recommendation.

For more information, please see Graduate Degrees in the Degree Requirements section of this catalog.

CREDENTIAL ONLY: Students with master's degree in a practitioner counseling area such as MFT, Social Work, Counseling, School Psychology (an M.A. program that required a practicum and internship/field experience or a two-year internship/field experience) may be considered for "Credential Only" admission. They must apply through the traditional process and go through an interview. Typically the credential-only admittees will have approximately 30 units to complete in our school counseling program. The number of units may vary depending on the individual transcripts assessment. Students would have to take all of the School Counseling specific courses and complete the 600-hour (total) field experience/ internships.

## Application Procedures

Interested persons can obtain the standard statewide graduate application form from the Admissions Office of Sonoma State University or download an application from the Sonoma State webpage. Students are accepted to the counseling program only once a year; therefore, we begin taking departmental applications on October 1 and continue to January 31 for admission the following fall. A $\$ 25.00$ application fee is required for the department. All applicants to the program must also apply for admission to the University and follow the University timelines for admission procedures. For specific instructions and procedures, contact the Counseling Department and/or the Office of Admissions and Records (www.sonoma.edu/counseling).

## General Information Meetings

Students planning to apply for admission or students wishing to enroll in any of the counseling department's courses are urged to attend one of the informational meetings specifically planned for prospective students. Selection criteria, admission procedures, and registration and advisement procedures will be explained. For informational meeting dates, call the Counseling Department office or visit the department webpage at www.sonoma.edu/counseling/.

## Major Core Requirements

| COUN 501 Theory and Practice of the Professional Counselor | 4 |
| :--- | :--- |
| COUN 510A Counseling Pre-Practicum | 4 |
| COUN 513 Research and Evaluation in Counseling | 4 |
| COUN 514A Supervised Internship / Field Experience | 4 |
| COUN 514B Supervised Internship / Field Experience | 4 |
| COUN 525 Psychological and Educational Assessment | 2 |
| COUN 570 Cross-Cultural Awareness in Counseling | 3 |

Total units in M.A. core

## Option I - Community Counseling/Marriage and Family Therapy

Completion of the Community Counseling/Marriage and Family Therapy (CC/MFT) option, in addition to the major core requirements above, satisfies all academic requirements in order to be eligible for the MFT examination. If the Board of Behavioral Sciences (BBS) mandates changes in curriculum for MFT trainees, the Department of Counseling will revise courses accordingly so the curriculum remains in compliance with BBS standards. The course descriptions in this catalog edition may not be the most current versions if such curricular revisions are undertaken after the catalog is printed.

COUN 502A/B Adult Development: Individual, Family, and Career Development 4
COUN 503 Dynamics of Individual Behavior
COUN 510B Counseling Practicum 4
COUN 512 Theory and Practice of Group Counseling 4
COUN 535 Development and Clinical Issues with Children and Adolescents 4
COUN 540 Marriage and Family Counseling
COUN 545 Law and Ethics for the Counselor
COUN 580A/B Relationship and Sexuality Counseling 4
COUN 582A Psychopharmacology 2
COUN 582B Introduction to Chemical Dependency
Additional elective units (with department approval)
Total units in the Community Counseling/MFT option
Total units in the degree

## Option II - School Counseling/Pupil Personnel Services Credential

Completion of the School Counseling/Pupil Personnel Services (PPS) option, in addition to the major core requirements above, satisfies the academic requirements in order to be eligible for the Pupil Personnel Services credential in school counseling. Candidates for the PPS credential are urged to be mindful of the following: while it is possible to complete all the courses required for the credential in a two-year period, such a program requires extremely careful planning. The department intends to offer each PPS course at least once a year, but students need to plan the sequence with their advisor to ensure it matches the availability of courses.

COUN 510B Counseling Practicum 4
COUN 511 Academic Career Counseling K-12 4
COUN 520 Introduction to School Counseling 4
COUN 521 Pupil Personnel Services: Concepts and Organization 4
COUN 523 Working with Families in a School Setting 4
COUN 524 Counseling Children and Adolescents 4
COUN 526 Group Counseling in Schools 4
COUN 527 Law and Ethics for School Counselors 3
COUN 528A Consultation
COUN 528B Crisis Intervention
Total units in the School Counseling option
Total units in the degree

All master's candidates are required to complete a project demonstrating a comprehensive and integrated understanding of the field of counseling. Projects include a case analysis and a grant proposal for developing a comprehensive mental health or school guidance specialized program. Six hundred (600) hours of supervised field experience are required for both the Community Counseling and School Counseling options.

## Community College Counseling Credential

Completion of the M.A. degree in either option satisfies all current requirements to apply for the Community College Counseling Credential. However, it should be noted that all of the required 600-hour school counseling field experience will be at the K-12 level and not at the Community College level.

## Practicum and Internship Facility

Stevenson Hall 1001 and 1004
For appointments: (707) 664-2544
Information also through Dept. of Counseling: (707) 664-2648
Clinical Supervisor Dr. Mark Doolittle (707) 664-2648
Directors:
Counseling Department Faculty
Contact Counseling Department at (707) 664-2544
Clinical Supervisor:
Mark Doolittle, Ph.D.
Professor Emeritus
(707) 664-2648
email: mark.doolittle@sonoma.edu
Under sponsorship and administrative oversight by the Counseling Department, the Practicum and Internship Facility functions as the clinical training site for M.A. students in the Department of Counseling. Its goals are:

- To provide a real-world training environment for Counseling Department graduate students as they complete their Practicum, Supervised Internship, and other components of the M.A. Counseling degree, in accord with national accreditation standards and state licensing criteria;
- To create links between the University and the community that provide direct practical services for the less fortunate and less advantaged members of our community by providing high quality, free services to the children, families, and communities in the service area of SSU;
- To support and develop collaborative programs with businesses, agencies, schools, and foundations that create innovative solutions for the social, family, and personal problems facing individuals and families in our community; and
- To sponsor and support the development of on-campus collaborations between SSU departments and centers which serve the goals of community service, increased training options, and expanded research opportunities that enhance the educational and career opportunities of Sonoma State University students.


## Sample Two-Year Program for Master of Arts in Counseling

FIRST YEAR:: 29-31 Units

| Community Counseling/MFT | School Counseling/PPSC |
| :--- | ---: |
| Fall Semester (15 Units) | Fall Semester (15 Units) |
| COUN 501 (4) | COUN 510A (4) |
| COUN 510A (4) | COUN 520 (4) |
| COUN 535 (4) | COUN 524 (4) |
| COUN 545 (3) | COUN 527 (3) |
| Spring Semester (14 Units) | Spring Semester (16 Units) |
| COUN 510 B (4) | COUN 501 (4) |
| COUN 503 (3) | COUN $510 \mathrm{~B}(4)$ |
| COUN 525 (2) | COUN 511 (4) |
| COUN 582 A/B (3) | COUN 526 (4) |
| Electives (2) |  |

SECOND YEAR:: 29-31 Units

| Fall Semester (15 Units) | Fall Semester (14 Units) |  |
| :--- | ---: | ---: |
| COUN 502A/B (4) | COUN 514A (4) |  |
| COUN 514A (4) | COUN 525 (2) |  |
| COUN 540 (4) | COUN 528A/B (4) |  |
| COUN 570 (3) | COUN 513 (4) |  |
|  |  |  |
| Spring Semester (16 Units) | Spring Semester (15 Units) |  |
| COUN 513 (4) | COUN 570 (3) |  |
| COUN 514B (4) | COUN 514B (4) |  |
| COUN 512 (4) | COUN 521 (4) |  |
| COUN 580A/B(4) |  | COUN 523 (4) |
|  |  |  |
|  |  |  |

## CREATIVE WRITING

## ENGLISH DEPARTMENT OFFICE

Nichols Hall 362
(707) 664-2140

## Programs Offered

Bachelor of Arts in English Creative Writing concentration Master of Arts in English Creative Thesis option

Creative writing is offered in the English Department through both undergraduate and graduate degrees. A master of arts in English with a creative thesis option is available as a 34-unit program, and the bachelor of arts in English with a creative writing emphasis is a 40-unit program. Sequences of courses are available in fiction writing, poetry writing, screen and script writing, and nonfiction writing.

Creative writing faculty includes poet Gillian Conoley, winner of several Pushcart Prizes for poetry, a National Endowment for the Arts award, a Fund for Poetry Award, the Jerome Shestack Award from The American Poetry Review, and a nominee for the National Book Critics' Circle Award. She is the author of The Plot Genie, Profane Halo, Lovers in the Used World, Beckon, Tall Stranger, and Some Gangster Pain. Her work has been anthologized in over 20 national and international anthologies, including the Norton Anthology American Hybrid, several Best American Poetry collections, The Pushcart Prize Anthology, and Lyric Postmodernisms. Gillian Conoley has taught at the lowa Writers' Workshop, Tulane University, Vermont College MFA Program, and the University of Denver.

Fiction writer Sherril Jaffe is the winner of a PEN award and author of six works of fiction, including Scars Make Your Body More Interesting \& Other Stories, This Flower Only Blooms Every Hundred Years, The Unexamined Wife, The Faces Reappear, House Tours, and Interior Designs, all with Black Sparrow. She is also the author of two works of non-fiction from Kodansha: a memoir, Ground Rules: What I Learned My Daughter's Fifteenth Year as well as, in collaboration with Alan Lew, One God Clapping: The Spiritual Path of a Zen Rabbi, a San Francisco Chronicle best seller and winner of the Josephine Miles Award for Literary Excellence in 2000. In 2010, she was awarded a fellowship to the MacDowell Colony. Her short stories appear regularly in such literary journals as Epoch, Zyzzyva, Alaska Quarterly Review, and Superstition Review. A new novel, Expiration Date, will be published in 2011. Sherril Jaffe has also taught at U.C. Berkeley, U.C. Davis, San Francisco State University, and The New School for Social Research in New York City.

Noelle Oxenhandler is the author of three non-fiction books: A Grief Out of Season, The Eros of Parenthood, and The Wishing Year, An Experiment in Desire (Random House 2008). Her essays, which have been frequently anthologized, have appeared in many national and literary magazines, including The New Yorker, The New York Times Magazine, Vogue, "0" Magazine, Tricycle, and Parabola. Her
work has been listed in The Best Essays of the Year collection and included in both The Best Spiritual Essays of the Year and The Best Buddhist Essays of the Year collections. She has been a regular guest teacher in the Graduate Writing Program at Sarah Lawrence College.

Greg Sarris, author, screenwriter, and scholar, holds the Endowed Chair in Native American Studies within the School of Arts and Humanities. Sarris has published several books of fiction and nonfiction, including the widely anthologized collection of essays, Keeping Slug Woman Alive: A Holistic Approach to American Indian Texts, Watermelon Nights, Mabel McKay: Weaving the Dream, The Woman Who Loved a Snake, and Grand Avenue, which was made into an HBO miniseries Sarris wrote and co-produced with Robert Redford. Sarris holds a Ph.D. from Stanford University and has previously taught at Loyola Marymount University in Los Angeles and UCLA. He currently serves as chairman of his tribe, the Federated Indians of Graton Rancheria.
Through the Writers at Sonoma Series, internationally and nationally prominent writers, publishers, and agents are invited each year to read and conduct seminars and workshops for students in the program. Visitors to the campus and the program have included Rae Armantrout, Yusef Komunyakaa, Lawrence Weschler, David Halberstam, Ishmael Reed, Clark Coolidge, D.A. Powell, C.S. Giscombe, Jessica Mitford, Allen Ginsberg, Lawrence Ferlinghetti, Charles Bernstein, Lyn Hejinian, Tom Wolfe, Czeslaw Milosz, Edward Albee, Kurt Vonnegut Jr., Michael Palmer, Donald Revell, Jane Miller, James Ellroy, Wanda Coleman, Lynn Freed, and Yiyun Li. Writers at Sonoma Series is funded by Instructionally Related Activities and the Nadenia Newkirk Fund for writers.

The well-regarded student literary magazine ZAUM is published through the Small Press Editing course offered by the English Department every semester. Students can learn every aspect of literary editing and publishing, including layout, design, and copyediting through this course. A paid position for a student as senior editor is available each year.

VOLT is the highly acclaimed national award-winning magazine which publishes nationally and internationally known authors. Winner of three Pushcart prizes and numerous grants, VOLT is committed to innovative writing. Students can work on the magazine by arrangement with instructor and through the Small Press Editing course. VOLT is edited by poet Gillian Conoley.

The SSU creative writing program is a member of the Associated Writing Programs. For program details, please refer to the English Department section in this catalog.

## CRIMINOLOGY AND CRIMINALJUSTICE STUDIES

## DEPARTMENT OFFICE

Stevenson Hall 2084
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## DEPARTMENT CHAIR

Barbara Bloom

## ADMINISTRATIVE ANALYST

Lisa Kelley

## ADMINISTRATIVE COORDINATOR

Katie Musick

## Faculty

## Barbara Bloom

Diana Grant
Patrick Jackson
Eric Williams

## Programs Offered

Bachelor of Arts in Criminology and Criminal Justice Studies
Minor in Criminology and Criminal Justice Studies
The criminology and criminal justice studies major offers a liberal arts curriculum concerned with the changing nature and content of law, the shifting public expectations of criminal justice agencies, and the reactions of those agencies to social perceptions and political pressures.

The student is offered an interdisciplinary academic approach to the understanding of the mechanisms of social control, resolutions of criminal justice problems, and a knowledge of accepted procedures and alternatives. This general but all-important background serves as a base for the areas of emphasis that are of interest to the individual student. Fields of interest - such as adult and juvenile probation, law enforcement, judicial administration, public advocacy, prevention and diversion, and correctional services - are studied in detail from several perspectives. Criminology and criminal justice studies majors are prepared to pursue graduate education in justice studies and the law as well as other graduate fields.

## Bachelor of Arts in Criminology and Criminal Justice Studies

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major core requirements | 36 |
| Electives (chosen under advisement) | 24 |
| Free electives | 9 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

Please note that transferable units from other institutions may be
applied to the category "electives chosen under advisement." The course work taken at this University to complete the major requirements must be selected in consultation with a department advisor.

Courses in Spanish (for non-native speakers) and computer and information sciences are highly recommended as supporting subjects.

Students must consult with a faculty advisor before beginning core courses.

## Major Core Requirements

CCJ 201 Criminal Justice and Public Policy 4
CCJ 420 Seminar in Criminology 4
CCJ 330 Government and the Rule of Law or
CCJ 404 Introduction to Constitutional Law 4
CCJ 370 Seminar in Research Methods 4
CCJ 450 Punishments and Corrections 4
CCJ 489 Civil Liberties and the Constitution or
CCJ 405 Rights of the Accused
CCJ 490 Senior Seminar: Criminology and Criminal Justice Studies 4
CCJ 497 Juvenile Justice 4
CCJ 499 Internship* 4
Total units in major core 36

* The internship requirement may be waived for students currently or previously employed in criminal justice or a related area. It must be substituted with another 4-unit course.


## Minor in Criminology and Criminal Justice Studies

The minor consists of any 20-unit pattern of Criminology and Criminal Justice Studies courses chosen in consultation with a department advisor. A maximum of 4 units of special studies or internship credit may be applied to the minor.

Minor courses must be taken in residence for a letter grade, except for the internship which is offered $\mathrm{Cr} / \mathrm{NC}$ only.

## Sample Four-Year Program for Bachelor of Arts in Criminology and Criminal Justice Studies

The sequence and selection of specific courses are suggestive.

FRESHMAN YEAR:: 32 Units

| Fall Semester (15 Units) | Spring Semester (17 Units) |
| :--- | ---: |
| ENGL 101 (3) | PHIL 101 (3) |
| Mathematics GE (3) | GE (3) |
| GE (3) | GE (3) |
| Electives (6) | Computer Science (3) |
|  | SPAN 101 (4) |
|  | SPAN 101L (1) |
|  |  |
|  |  |
|  | SOPHOMORE YEAR:: 31 Units |


| Fall Semester (15 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| HUM 200 (3) | GE (3) |
| GE (3) | GE (3) |
| CCJS 201 (4) | CCJS 370 (4) |
| SPAN 102 (4) | Elective (3) |
| SPAN 102L (1) | GE (3) |
|  |  |

JUNIOR YEAR:: 29 Units

| Fall Semester (15 Units) | Spring Semester (14 Units) |
| :---: | :---: |
| CCJS 399 (1) | CCJS 330 (4) |
| CCJS 420 (4) | CCJS 450 (4) |
| CCJS 489 (4) | Upper-Division GE (3) |
| Electives (3) | Electives (3) |
| Upper-Division GE (3) |  |
| SENIOR YEAR:: 28 Units |  |
| Fall Semester (13 Units) | Spring Semester (15 Units) |
| CCJS Upper-Division Electives (4) | CCJS 490 (4) |
| Upper-Division GE (3) | CCJS 499 (4) |
| Electives (6) | CCJS 497 (4) |
|  | Electives (3) |
| TOTAL UNITS:: 120 |  |

## ECONOMICS

DEPARTMENT OFFICE<br>Stevenson Hall 2042<br>(707) 664-2366<br>www.sonoma.edu/sbe<br>DEPARTMENT CHAIR<br>Robert Eyler<br>ADMINISTRATIVE COORDINATOR<br>Barbara Dietrich<br>LOWER-DIVISION ADVISOR<br>Sheila Mackintosh-Sims

## Faculty

Florence Bouvet
Steven Cuellar
Robert Eyler
Sue Hayes
Chong-Uk Kim
Michael Visser
*Richard West
*Faculty Early Retirement Program

## Programs Offered

## Bachelor of Arts in Economics

## Minor in Economics

Economics is a social science that focuses on the organization of economic systems for the production of goods and services and the distribution of wealth and income. The SSU Economics Department is committed to excellence in providing students an education to meet the challenges of the future in a wide variety of careers.
The B.A. degree program has three basic objectives: to provide a sound grasp of the tools of economic analysis and measurement; to provide an understanding of institutional development and the interrelation of economic and social factors; and to develop the student's ability to apply systematic analysis and understanding to decisionmaking in both the private and the public sectors.

Many courses deal with the structure and performance of a particular institution or policy area within the economy. Students can follow their career and intellectual interests by taking a field concentration or advisory study plan as described below.

Many faculty have served as practicing economists with public agencies or private firms, bringing a rich background of practical experience analyzing policy issues and problems to their teaching.

## Careers in Economics

The curriculum and teaching program of the department are designed for students who seek employment in the public or private
sector upon graduation and those who wish to pursue graduate studies in economics, business, public administration, law, and other fields.

Many of the department's graduates have started their careers with major financial institutions, corporate businesses, government, and nonprofit organizations. They find employer preferences for well-trained economics majors as budget analysts, management trainees, marketing specialists, program planners, teachers, and a wide variety of entry-level jobs in which employers expect a person to be able to apply systematic thinking and analysis.

## Learning Objectives

## Objectives Specific to Economics

Students are required to:

- Articulate an understanding of economic terms, concepts, and theories;
- Identify subjective and objective aspects of economic policy;
- Use both qualitative and quantitative reasoning to analyze social and economic issues; and
- Demonstrate an awareness of current and historic economic issues and perspectives.


## General Skills

In the course of meeting the objectives specific to economics, students are expected to acquire and demonstrate:

- Critical-thinking abilities;
- Communication skills; and
- Quantitative and information-based skills.


## Relating Knowledge to Values

Students are expected to acquire and demonstrate:

- An awareness of global, historical, and institutional economic issues; and
- Understanding of choices and values behind economic policy formation.


## Bachelor of Arts in Economics

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | $41-44$ |
| General electives | $25-27$ |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Prerequisites

Majors must complete a math/statistics requirement (MATH 165, BUS 211 or equivalent) as a prerequisite for the upper-division core courses in the major.

## Major Core Requirements

ECON 204 Introduction to Macroeconomics 4
ECON 205 Introduction to Microeconomics 4
ECON 304 Intermediate Macroeconomic Theory 4
ECON 305 Intermediate Microeconomic Theory 4
ECON 317 Introduction to Econometrics 4
Two 400-level economics seminars not used
in a field concentration or advisory study plan
Total units in the major core
Field concentration or advisory study plan
Total units in the major

## B.A. Field Concentrations

An economics major may select one of the following concentrations, which are designated on a student's transcript and diploma. Please see an advisor for details of each of the following concentrations:

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Managerial Economics
Labor and Public Economics
International Economics
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## B.A. Advisory Study Plans

Instead of a field concentration, economics majors may focus their course work beyond the required core courses in an advisory study plan. These plans are not designated on diplomas, but completion can be certified by a letter from the department chair. Please see an advisor for details or to develop a specialized plan.

## Minor in Economics

Students may qualify for a minor in economics by completing the 20-unit program listed below. The minor will be recorded upon request in the student's official records.
ECON 204 Introduction to Macroeconomics
ECON 205 Introduction to Microeconomics
ECON 304 Intermediate Macroeconomic Theory 4
ECON 305 Intermediate Microeconomic Theory 4
Upper-division economics course (excluding internships and tutoring)
Total units in the minor

## Sample Four-Year Program for Bachelor of Arts in Economics

FRESHMAN YEAR: 28 Units

| Fall Semester (14 Units) | Spring Semester (14 Units) |
| :---: | :---: |
| ENGL 101 (A2) (3) | PHIL 101/102 (A3) (3) |
| MATH 165 (B4) (4) or BUS 211 (4) | BIOL 110 (B2/lab) (4) |
| ECON 204 (D5) (4) | ECON 205 (4) |
| UNIV 102 (3) | U.S. History course (D3) (3) |
| SOPHOMORE YEAR: 34 Units |  |
| Fall Semester (18 Units) | Spring Semester (16 Units) |
| Written/Oral Analysis (A1) (3) | Physical Science course(B1) (3) |
| Literature (C2)* (3) | POLS 200 (D4) (3) |
| ECON 305 (4) | Fine Arts course (C1)* ${ }^{\text {( }}$ ) |
| ECON 317 (4) | Natural Science (B3) (3) |
| Social Sciences (D1*/D2) (4) | ECON 304 (4) |
| JUNIOR YEAR: 28 Units |  |
| Fall Semester (14 Units) | Spring Semester (14 Units) |
| Humanities (C3/C4)* (3) | Humanities UD(C4/C3)* (3) |
| Concentration/Advisory study plan (8) | Concentration/Advisory study plan (8) |
| Social Sciences UD GE (D2/D1) (3) | Elective (3) |

## SENIOR YEAR: 31 Units

## Fall Semester (19 Units)

Spring Semester (12 Units)
Electives (12)
Electives (8)
Integrated Person UD GE (E)* (3) Economics Seminar (4)
Economics Seminar (4)
In order to total the 120 units necessary for graduation within four years, a student must average 15 units per semester.
(*One of these courses must be ethnic studies.)
TOTAL UNITS: 120

## Double Majors

Students with majors in disciplines such as business, environmental studies and political science will find that adding an economics major provides them with a breadth of background that is viewed favorably by graduate professional programs and employers.

Students interested in any double major with economics should consult with their Economics Department advisor.

## Graduate Work in Economics and Related Fields

Economics majors planning graduate work in economics, business, or public administration should take one or more courses of calculus and linear algebra, probability theory, ECON 404, 405 and 417. Consult with an advisor to plan accordingly.

## EDUCATION

## SCHOOL OFFICE

Stevenson Hall 1078
(707) 664-3115/2132
www.sonoma.edu/education
STUDENT SERVICES/CREDENTIALS OFFICE
Stevenson Hall 1078, (707) 664-2832
credentials.office@sonoma.edu
The Student Services Office serves as the admissions and records center for all programs offered in the School of Education and is responsible for the recommendation of teaching and service credentials. Credentials analysts and staff are available to provide application information and credential information to prospective students, continuing students, out of state teachers/administrators, University constituents, and the University service area in general.

## CAREER OUTLOOK

California faces the daunting task of replacing 300,000 teachers over the next ten years. Currently shortages of credentialed teachers exist in mathematics, science, special education, Spanish, and bilingual education. In addition to public schools, graduates of the School of Education find positions in community agencies and in the private sector.

## Scholarship Opportunities for Teacher Preparation

## APLE

The Assumption Program of Loans for Education (APLE) is a teacher incentive program designed to encourage students to become California teachers in a range of critical teacher shortage areas and in several types of high-need schools. Administered by the California Student Aid Commission, the program forgives up to \$19,000 in outstanding educational loan balances in return for four consecutive years of qualifying teaching service. Candidates must apply while enrolled in a credential program.

## TEACH Grant

The Teacher Education Assistance for College and Higher Education (TEACH) Grant is a program created through the federal government's College Cost Reduction and Access Act of 2007. The federal TEACH Grant program provides grants of up to \$4,000 per year to students who are interested in earning a California teaching credential, meet certain criteria, and who are enrolled in programs at Sonoma State University that have been designated as eligible. You can review eligibility and application procedures at http://www. sonoma.edu/finaid/.

## F. George Elliott Exemplary Student Teaching Scholarship

This scholarship recognizes a credential candidate who is currently completing full time student teaching or internship and whose practice and professional dispositions exceed excellence on all program
performance and disposition standards. Each of the three School of Education departments may nominate one candidate for this award each semester. Nominees should excel in:

- Educating the whole student;
- Implementing curriculum and pedagogy that are innovative, creative, and reflective of program preparation;
- Reflecting on their practice; and
- Engaging with the school, community and families.


## Elliott Fellowship for Professional Renewal

This award is open to all Santa Rosa City School District middle school, junior high and senior high teachers who have completed from three to nine years teaching in the Santa Rosa City School District. It provides the recipient a two-semester scholarship in the amount of part- or full-time enrollment fees plus an additional $20 \%$ toward fees for books and supplies. Candidates apply for this award, and the recipient will be selected by a faculty committee appointed by the Dean. Each recipient of this award must complete the two-semester scholarship period within five years of receiving the award. All applicants must meet admissions requirements for graduate study at SSU.

## Noyes Scholarship

The Noyes Scholarship program will provide
(a) scholarships to undergraduates who are part of a mathematics undergraduate teacher program and/or science students intent on becoming teachers;
(b) scholarships to math or science teacher candidates in their credential programs; and
(c) Noyce Scholar internships opportunities to work with master teachers in high-need K-12 schools.
The project is based in the Science and Mathematics Teacher Recruitment and Retention Initiative (SMTRI) program at Sonoma State University (www.sonoma.edu/education/grants/smtri).

## Patricia Nourot Memorial Scholarship

This scholarship provides funds to cover educational expenses for students in the Early Childhood Education minor or the master's degree program with an emphasis in Early Childhood Education. In each academic year, applications will be considered and one scholarship of up to $\$ 300$ will be awarded. Applicants should show potential for leadership in the field of Early Childhood Education. The student who is awarded the scholarship will be notified by December 15, and the funds will be available for spring semester.

## Credential Programs

## Child Development Permit

The California Child Development Permit is issued by the Commission on Teacher Credentialing (CTC). The permit is organized into different levels, each authorizing the holder to perform different levels of service in child development programs. Sonoma State University is authorized to process Child Development Permit applications at the Assistant Teacher, Associate Teacher, and Teacher levels for preschool programs. Additional information and application packets are available online at http://www.sonoma.edu/users/f/filp/ece/permit.htm.

## Multiple Subject and Single Subject Credentials

The multiple subject and single subject credentials authorize the teaching of students at various stages of English language development and from a variety of cultural backgrounds.
Individuals interested in teaching at the elementary school level should apply to the Multiple Subject Credential Program, which prepares candidates to teach in a self-contained classroom, kindergarten through grade 12.

The single subject credential authorizes the holder to teach a particular subject in a school organized by academic disciplines, kindergarten through grade 12 . Since most elementary schools are not departmentalized, this credential generally is appropriate for the middle school and high school teacher candidate (art, music, and physical education candidates may actually teach K-12).

## Education Specialist Credential

The Education Specialist (special education) Credentials, Level I and Level II, are offered for mild/moderate and moderate/severe disabilities and authorize the holder to provide services in K-12 special day classes (SDC) or resource specialist program classes (RSP).

## Advanced Credentials

Individuals possessing a basic teaching credential may enter programs leading to specialist or service credentials. These advanced credentials authorize the holder to perform specialized roles in public schools.

The advanced credentials we offer are:

- Education Specialist II

Preliminary Administrative Services Credential I (PASC I)

- Professional Administrative Services Credential II (PASC II)
- Reading Certificate
- Reading and Language Arts Specialist Credential
- Teaching English to Speakers of Other Languages (TESOL)

Note: Program requirements change periodically, and current information may not be available in this catalog. For more detailed information on credentials and other education programs, please see the University's special bulletins and the School of Education's
current program brochures and policy statements, or visit the Education website, www.sonoma.edu/education.

## Admissions

## Basic Teaching Credential Programs

Basic teaching credentials include Multiple Subject, Single Subject, and Preliminary Education Specialist Credentials. The basic authorization to teach in the California public schools requires all the following:

- Possession of a bachelor's degree;
- Verification of appropriate subject matter competency, either completion of an approved subject matter preparation program or passage of appropriate state-approved examination(s);
- Basic Skills Requirement met via appropriate option;
- Completion of a college-level course or college-level examination that covers the U.S. Constitution. POLS 200 or 202 at SSU will meet the requirement;
- Completion of a state-approved program of professional teacher education;
- Valid Adult, Child, Infant CPR card (Single Subject and Multiple Subject only); and
- RICA (Multiple Subject and Education Specialist only).

Note: Students should consult with the Student Services Office during their first semester on campus if they plan to pursue a teaching credential. Students admitted to a credential program should contact the Student Services Office for any changes in requirements.

## California State University Requirements for Admission to Basic Teaching Credential Preparation Programs

All credential candidates must complete the following before admission to the professional preparation programs:

1. Application/admission to the University;
2. Submission of application to a basic credential program through the School of Education;
3. Professional Goals Statement;
4. Grade point average of 2.75 in last 60 units of attempted course work or a 2.67 overall grade point average;
5. Basic Skills Requirement met or in progress via appropriate option;
6. Two letters of recommendation, dated within six months of application to the program;
7. Verification of appropriate subject matter competency completed or in progress (requirement depends on type of credential sought);
8. Submission of negative TB test dated within 12 months of application to the program;
9. Filing of the application for a Certificate of Clearance, which includes fingerprinting;
10. Demonstration of aptitude, personality, and character traits that satisfy the standards of the teaching profession. Assessment of these qualities will be made by the School of Education through evaluation of interviews, letters of recommendation, candidate's professional goals statement, and spontaneous writing sample;
11. Evidence of 45 hours of experience working with school-age children (completed within the last two years); and
12. Verification of understanding of professional responsibilities related to harassment, child neglect or abuse, and discrimination. Successful completion of the Legal Seminar and assessment offered in the School of Education meets this requirement; and
13. For admission to multiple subject and education specialist programs, a passing score on the appropriate CSET subtests is required. See the CSET Exam information and registration guide: http://www.cset.nesinc.com/.
Contact the Student Services Office for information about the latest test date that will be acceptable for the semester in which you are applying. Even if you request scores to be sent to the University directly from the testing company, also submit a photocopy of scores directly to the Credentials Office.

PLEASE NOTE: Students may be eligible to request a waiver of the CSET passing requirement, under certain circumstances. For more information on these options, please e-mail the Student Service Office at credentials.office@sonoma.edu.
The Student Services Office provides information regarding standards and dates for application to programs in the School of Education.
Additional program-specific admission requirements are listed with each program description.

NOTE: A Pre-Credential Track is available for all applicants who are currently working on CSET completion.

## Undergraduate Integrated/Blended Degree and Credential Programs

The Integrated/Blended Degree and Credential Programs offer undergraduate students the opportunity to earn a four-year baccalaureate degree and a teaching credential simultaneously. The undergraduate blended degree program is currently available for Track 3 majors in Hutchins Liberal Studies, leading to a multiple subject credential. Students in this program must receive advising about course sequence prior to, or very early in, their freshman year; enroll in an average of 15-18 units per semester; and be willing to take courses in at least one summer session.

For Secondary Education, integrated programs are available for majors in music and kinesiology leading to the Single Subject credential. This option may be available to transfer students, depending on the program of interest. For more information contact the Student Services Office in the School of Education.

## Foundational Authorizations

The Foundational Level General Science Teaching Credential authorizes teaching integrated science through 8th grade and general science at the high school level (as opposed to college-prep high school biology, chemistry, or physics).
The Foundational Level Mathematics Teaching Credential authorizes the holder to teach the following content areas: general mathematics, all levels of algebra, geometry, probability and statistics, and consumer mathematics. Calculus and math analysis classes are outside the scope of the authorization.
Contact the School of Education Student Services/Credentials Office (credentials.office@sonoma.edu) for further information.

## Procedures for Admission to Basic Teaching Credential Preparation Programs

The Credentials Office provides information regarding admissions requirements and dates for application to programs in the School of Education.
Obtain application packets and additional information from the Credentials Office, Stevenson 1078, or on the website, www. sonoma.edu/education. Submit to the Credentials Office, Stevenson 1078.

## Continuation in Basic Teaching Credential Preparation Programs

1. All education students are required to attend at least one advising session each semester, or meet with an advisor.
2. Students must successfully complete all requirements for each program phase-including coursework, practica, and student teaching-before entering the subsequent phase.
3. Students are expected to make continuous progress toward the credential while maintaining a grade point average of 3.00 in professional education courses after entry into the credential program. Incomplete grades (I) and grades of C- or below in professional education courses must be removed and statutory requirements met prior to continuing enrollment in courses.
4. Candidates who must delay progress in the professional education program may file a written request with the program coordinator for an extended program or for a leave of absence. A student returning from a program delay will be subject to the screening requirements in effect at the time of reentry and will be accommodated as space allows. Any student on academic probation is subject to automatic disqualification as a credential candidate.

In all School of Education programs students are expected to meet and maintain high academic and performance standards, including all of the following (additional standards may be required by specific programs):

- Maintenance of a 3.00 GPA in all professional education courses (nothing lower than a C , including prerequisites);
- Successful completion of required field experiences;
- Successful completion of a program portfolio prior to advancement to the final phase of the program and/or completion of the final field experience; and
- Effective July 2008 all credential candidates in Multiple Subject and Single Subject programs will be required to successfully complete the Performance Assessment for California Teachers.


## Clearing a Preliminary Credential

If you hold a California preliminary multiple subject, single subject, or education specialist credential and you have questions about completing requirements to clear the credential, please contact the Credentials Office at credentials.office@sonoma.edu.

## Master of Arts in Education

## Description of M.A. in Education Programs

Sonoma State University's School of Education offers five advanced credential programs and six areas of concentration within the Master of Arts in Education degree. Each of these programs reflects the philosophy, purpose, and goals of the School of Education Conceptual Framework, developed by the School of Education faculty. In our M.A. programs, students critically examine educational theories and research through a variety of empirical, theoretical, and cultural lenses to develop an informed educational vision and innovative pedagogy in a variety of educational settings. Students have the opportunity to collaborate with faculty and colleagues to examine and influence current educational practice through research, project development, and advocacy. We expect graduates to emerge from their work at Sonoma State University as leaders in their field and agents of change.

The six M.A. in education areas of concentration offered at Sonoma State University are:

- Curriculum, Teaching, and Learning (see Department of Curriculum Studies and Secondary Education);
- Early Childhood Education (see Department of Literacy Studies and Elementary Education);
- Educational Leadership (see Department of Educational Leadership and Special Education);
- Reading and Language (see Department of Literacy Studies and Elementary Education);
- Special Education (see Department of Educational Leadership and Special Education); and
- Teaching English to Speakers of Other Languages (see Department of Curriculum Studies and Secondary Education).

Throughout their years in an M.A. program, students are required each semester to meet with the graduate advisor in their area of concentration to plan collaboratively their progress in the M.A. program. Students may also confer with other graduate program faculty and the Director of Graduate Studies for advice and guidance
in their coursework and professional development. Students must maintain a 3.00 grade point average in all coursework in the approved M.A. program as well as in all coursework taken subsequent to admission in conditionally classified standing.

For more information about the M.A. in education, read our M.A. handbook online at www.sonoma.edu/education/Masters.htm

## Prerequisites for the M.A. in Education Program

- A bachelor's degree from an accredited institution;
- A cumulative upper-division and graduate grade point average of at least 3.00 and a grade point average of at least 3.00 for previous work in education; and
- A valid basic teaching credential (except in Curriculum, Teaching, and Learning, Early Childhood Education, and TESOL).


## Procedures for Applying to the M.A. in Education Program

1. Apply to the University as a graduate student;
2. Apply to the School of Education; and
3. Submit the following:
a. A professional goals statement;
b. One set of official or unofficial transcripts;
c. One photocopy of a valid basic teaching credential, when required; and
d. Two current letters of reference attesting to academic potential and professional promise (except where otherwise noted).

## M.A. Core Courses

Two core courses are required for all M.A. in education program areas of concentration:
EDUC 570 The Reflective Educator 3
EDUC 571 Research Paradigms in Education 3

## Pathways to Program Completion

The M.A. program of study requires 30-36 semester units of course work, depending on the M.A. pathway a student selects. There are three pathways to program completion, including the thesis/project, cognate, and individualized examination. We encourage students to become knowledgeable about each of the pathways in order to pursue a program of study that meets their professional goals within their preferred style of learning.
In all three pathways, graduate students take 18 units in the program area of concentration and at least 6 units (EDUC 570 and 571) of M.A. core courses. All M.A. students work with a three-member committee, most closely with the committee chair, to complete a culminating activity, which is presented to the committee in a public forum. In addition to these points in common, there are distinct differences among the three pathways to program completion, as described below.

## 1. Thesis/Project

The thesis/project pathway is a 30 -unit course of study, including 18 units in the student's program area of concentration and 12 units of core courses (EDUC 570, 571, 598, and 599). In order to prepare for the thesis/project, students must take Education 598 (Developing a Thesis/Project) and 599 (Supervised Study for the Thesis/Project) as their final two courses in the M.A. program.
The thesis is a written product of a systematic study of a significant question, problem, or issue in education. The project is a written document describing a significant undertaking appropriate to education. The thesis/project option requires an extensive write-up, including an in-depth literature review. Students must also present their thesis/project to their three-member committee in a public forum. Examples of a thesis investigation include process/product research, co-relational study, action research, ethnographic study, historical study, or theoretical study. Examples of a project include curriculum design, professional development for educators, program design, a performance piece, or a creative project.

For students pursuing the thesis/project pathway, two additional core courses are required:
EDUC 598 Developing a Thesis/Project 3
EDUC 599 Supervised Study for Thesis/Project 3

## 2. Cognate

The cognate pathway is a 36 -unit course of study, including 18 units in student's program area of concentration, 9 units of core courses (EDUC 570, 571, and 572), and a 9 -unit cognate course of study. The cognate course of study is a group of courses which students choose in consultation with a faculty advisor and/or committee chair, which allows students to examine areas of interest related to their M.A. concentration. In order to work with their three-member committee on the cognate project, students must take Education 572 (Supervised Study for the Cognate Project) as their final course in the M.A. program.
The cognate project (e.g., professional article, video, website, or field-based product) is a significant undertaking through which students connect their cognate course of study with the M.A. core courses, program concentration, and/or work in the field. The project displays understandings, practices, and theoretical perspectives on the candidate's program area of concentration and cognate course of study. Projects should arise out of candidate's goals and professional interests and may take virtually any form. The project may address, for example, implications of the cognate course of study for the classroom, reflections on new teaching practices, response to scholarly research, or educational theory. A written reflection that includes the theoretical context for the project must be included. Students must present the completed project to their three-member committee in a public forum.
For students pursuing the cognate pathway, one additional core course is required:
EDUC 572 Supervised Study for the Cognate Project 3

## 3. Individualized Examination

The individualized examination pathway is a 33 -unit course of study, including 18 units in the student's program area of concentration, 9 units of core courses (EDUC 570,571, and 573), and 6 units of elective courses. For the electives, students, in consultation with their faculty advisor and/or committee chair, choose courses which allow them to examine areas of interest related to the M.A. concentration and to focus on the examination area(s) of study that they have chosen. In order to work with their three-member committee as they prepare for the examination, students must take Education 573 (Supervised Study for the Individualized Examination) as their final course in the M.A. program.
The individualized examination addresses areas of study identified by the student in consultation with the student's examination committee. The exam is written by the student's committee (a chair plus two other members) and consists of three questions related to the student's area(s) of study, including one question submitted in advance to the committee by the student. When the student is ready to take the examination, he/she receives the questions from the chair and has 72 hours to complete the written examination and return it to the chair. Within two weeks of completing the examination, the student must meet with the committee for an oral examination in which the committee asks follow-up questions for clarification and elaboration.
For students pursuing the individualized exam pathway, one additional core course is required:
EDUC 573 Supervised Study for the Individualized Examination 3
PLEASE NOTE: None of the M.A. core courses may be taken through Extended Education.

## The Program Portfolio

In order to advance to candidacy, all students must complete a satisfactory program portfolio and present it to their committee. In most cases, this presentation occurs at the same meeting where the student presents a proposal for the culminating activity. The program portfolio contains artifacts (papers, projects, etc.) produced by the student throughout the M.A. program which demonstrate the student's proficiency and growth in the areas listed below. The portfolio should be reflective in nature and should show personal, professional, and intellectual growth. It should also demonstrate how the student's M.A. program has prepared the student to undertake the culminating activity (thesis/project, cognate project, or individual examination).
In the program portfolio, students are expected to demonstrate:

- Personal, intellectual, and professional growth over the course of the M.A. program;
- Written language proficiency;
- Breadth and depth of knowledge in educational research;
- Breadth and depth of knowledge in the program area of concentration;
- Critical analysis of multiple historical, philosophical, and theoretical perspectives in education; and
- Evidence of planning toward the completion of the culminating activity (thesis/project, cognate project, or individualized examination).


## Requirements for Advancement to Candidacy

- Completion of M.A. core courses EDUC 570 and 571, and of M.A. area of concentration courses;
- Presentation and approval of program portfolio;
- Presentation of culminating activity proposal; and
- Filing of Advancement to Candidacy form (GSO 1) with School of Education Director of Graduate Studies.


## Requirements for the M.A. Degree in Education

M.A. students must complete all requirements as established by the School of Education, the SSU Graduate Studies Council, and the University, to include:

1. Completion of an approved program consisting of a minimum of 30 units of upper-division and 500 -level courses, as follows:
a. a maximum of 12 units of upper-division courses
b. not more than 9 semester units of transfer and/or extension credit
2. Filing of an Advancement to Candidacy form that verifies approval of the program portfolio, verifies writing proficiency, and describes the culminating project; and
3. Completion and final approval of culminating activity (thesis/ project, cognate project, or individualized examination).

All requirements listed above must be completed within seven years ( 14 semesters) of the initiation of graduate study. Students have four semesters after taking their final course (EDUC 599 or EDUC 572 or EDUC 573) to complete the culminating activity.

# EDUCATION: CURRICULUM STUDIES \& SECONDARY EDUCATION (CSSE) 

## DEPARTMENT OFFICE

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John Kornfeld
*Perry M. Marker
Jessica K. Parker
*Faculty Early Retirement Program

## Programs Offered

## Basic Credential:

Single Subject (Secondary Schools) Teaching Credential
Master of Arts in Education with a concentration in Curriculum, Teaching, and Learning (CTL)

Master of Arts in Education with a concentration in Teaching English to Speakers of Other Languages (TESOL)

The Department of Curriculum Studies and Secondary Education is dedicated to the advancement of excellence in education. CSSE offers an exemplary single subject teacher education preparation program based on sound educational practice, extensive research knowledge, and sensitivity to the needs of diverse populations. Our faculty is comprised of internationally recognized scholars from a wide variety of subject area disciplines who study and produce current research in teacher education and curriculum studies, and who are familiar with the best practices of teachers. CSSE provides many opportunities for students to be part of a high-quality teaching and learning community.
While most of the programs in CSSE are designed for positions in public schools, students can also receive preparation in our master of arts in Curriculum Teaching and Learning, applicable to a wide variety of non-teaching positions in education, government, and the corporate sector. The Master of Arts in Curriculum, Teaching, and Learning allows students to design their own program of study (area of emphasis), or select an area of emphasis in educational technology, specifically designed for students interested in technology applications in the public or private sector.

Note: Program requirements change periodically, and current information may not be available in this catalog. For more detailed information on credentials and other education programs, please see the University's special bulletins and the School of Education's current program brochures and policy statements, or visit the education website, www.sonoma.edu/education.

## Single Subject (Secondary Schools) Teaching Credential

The single subject credential authorizes the holder to teach a particular subject in a school organized by academic disciplines, kindergarten through grade 12 . Since most elementary schools are not departmentalized, this credential, in general, is appropriate for the middle school and high school teacher candidate (art, music, and physical education candidates may actually teach K-12). The program aims toward two primary goals: (1) to develop the skills and knowledge needed to be an effective beginning teacher, and (2) to begin to establish the professional understandings and attitudes useful for supporting growth and development throughout a teaching career.

Coursework combined with the field experience in the program will make candidates:

- Competent in basic classroom skills;
- Knowledgeable and enthusiastic about students, learning, and teaching;
- Sensitive to cultural, linguistic, and learning diversity, and informed about multiple cultures; and
- Prepared to continue their development as professional educators. After completion of the Single Subject Credential Program, candidates will be recommended for the California Single Subject Teaching Credential in a subject area. This credential certifies the holder to teach classes in a subject in California public schools. Depending upon undergraduate or graduate standing and on the elective courses taken, the credential will be either the Preliminary or the Professional Clear Credential. In either case, the credential will need to be renewed at the end of five years. Successful completion of the program prepares candidates to teach in California's culturally and linguistically diverse classrooms.

Students pursuing the single subject credential may select from among the following programs.

## Art

Art Building 128
(707) 664-2151

## English

Drama / English / Journalism / Speech
Nichols Hall 362
(707) 664-2140

## Modern Languages

French / German (Test only)
Spanish
Stevenson Hall 3016
(707) 664-2351

## Science

Chemistry, Physics, Biology
Darwin Hall 121
(707) 664-2189

## Mathematics

Stevenson Hall 3019
(707) 664-2917

## Music

Ives Hall 206
(707) 664-2324

## Physical Education

PE Building 14
(707) 664-2357

## Adapted Physical Education

PE Building 14
(707) 664-2357

## Social Science

Stevenson Hall 2070
(707) 664-2112

Students may satisfy subject matter requirements by passing the appropriate state approved examinations (CSET).

The Single Subject Credential Program is a two-semester program that begins either in the fall or spring semester. Students are admitted to the program according to the subject they plan to teach:

## Fall Admission

English
Social Studies
Foreign Language
Music
Physical Education
Art
Mathematics
Science

* Spring Admission

English Social Studies

* All other subject areas may apply in spring, but students must agree to a threesemester program pathway.


## The Single Subject Credential Program

The Single Subject Credential Program is a two-semester program. Students admitted for the fall semester, who successfully complete all coursework and their final student teaching, will be eligible for the credential in June. Students admitted for the spring semester, who successfully complete all coursework and their final student teaching, will be eligible for the credential in January. Students who wish to take longer than two semesters to complete the credential program may extend their program to three or four semesters. More information regarding the extended program may be obtained from the single subject program advisor at (707) 664-4203.

Single subject program courses required for each phase are listed below. The co- and prerequisite courses and all Phase I courses must be satisfactorily completed prior to beginning Phase II.

## Program Corequisite Course

EDSP 433 Teaching Adolescents with Special Needs
3
Program Prerequisite Courses
EDUC 417 School and Society 3
EDSS 418 Learning and Development in Adolescents 3
Total corequisite and prerequisite courses

## Program Requirements

Phase I
EDSS 442 Middle/Secondary Teaching in Multicultural Settings 4
EDSS 443A Observation and Participation in Multicultural Settings 2
EDSS 443B Seminar: Classroom Management and Field Experience 3
EDSS 444 Teaching in the Content Areas 4
EDSS 446 Language and Literacy Across the Curriculum:
Middle and Secondary Schools
4
Total units Phase I
17
Phase II
EDSS 458 Student Teaching in Multicultural Settings 12
EDSS 459 Seminar for Secondary Student Teachers 4
Successful completion of Performance Assessment of California Teachers (PACT)
Total units Phase II
16
Total units for program
(including corequisites and prerequisites)

## Teaching Performance Assessment

A teaching performance assessment (TPA) is required for all those seeking a single subject teaching credential. The Performance Assessment for California Teachers (PACT) is the teaching performance assessment used by the Single Subject Program. This assessment is comprised of a teaching event that is an extended documentation of a segment of student teaching. It is the capstone performance assessment that integrates learning throughout the teacher education program. It includes 2-3 lessons of teaching that are videotaped and analyzed by the student. It is structured in sections corresponding
to developing a context for learners, planning, teaching, assessing, academic language, and reflecting on teaching. A subject matter expert scores the teaching event. The teaching event takes place in Phase II (student teaching) of the program. All students must pass the PACT to receive a teaching credential.

## Integrated Degree and Credential Pathway Program

The Integrated Degree and Credential Pathway Program is an opportunity to earn a four-year baccalaureate degree and a teaching credential simultaneously. Students in this program must receive advising about course sequence prior to, or very early in, their freshman year; enroll in an average of 15-18 units per semester, and be willing to take courses in at least one summer session. Most majors will earn a four-year degree and a teaching credential in four years plus one additional semester. This program is currently available for first-semester freshman students who are majors in English, mathematics, kinesiology, and music, who are seeking a single subject teaching credential.

## Single Subject Intern Program

The intern program is a collaboration between the Curriculum Studies and Secondary Education Department at Sonoma State University, the Beginning Teacher Support and Assessment Program at the Sonoma County Office of Education, and participating school districts.

The intern program allows public and nonpublic school teachers who do not hold preliminary single subject credentials to complete a credential program with supervision and mentoring while employed as teachers. Further information can be obtained from the School of Education Credentials Office or from the Intern Coordinator, Dr. Karen Grady (664-3328).

To be eligible to participate in the single subject intern program, each candidate must have:

- Completed corequisite courses and all Phase I program courses in the single subject credential program;
- Earned a baccalaureate degree from an accredited college or university;
- Passed the Basic Skills Requirement via an appropriate option;
- Passed a Subject Matter Knowledge Exam (CSET) or have completed a Subject Matter Waiver Program;
- Completed character and identification clearance (fingerprints);
- Demonstrated knowledge of the U.S. Constitution by providing evidence of having studied the U.S. Constitution or by passing the U.S. Constitution test;
- Completed an application for the intern credential; and
- Verification of employment.

To be Awarded a Teaching Credential, all Interns Must:

- Pass the PACT to receive a teaching credential.
- Successfully complete the Single Subject Intern Program.


## Master of Arts in Education with Concentration in Curriculum, Teaching, and Learning

The Master of Arts in Education degree program in Curriculum, Teaching, and Learning offers courses of graduate study to prepare candidates for specialized teaching and for curriculum and instructional leadership responsibilities in schools, government agencies, or corporate settings. The program, a minimum of 30 units, provides for areas of concentration in curriculum, teaching, and learning. Students must maintain a 3.00 grade point average in all coursework in the approved master's degree program.

The Curriculum, Teaching, and Learning concentration provides flexibility in program development for a wide range of professional educators, government officials, and private sector employees. Candidates need not possess a teaching credential.

The required Curriculum, Teaching, and Learning area concentration courses are:
EDCT 585 Curriculum Development: Theory, Practice and Evaluation 3
EDCT 586 Teaching and Learning: Research and Application in the Classroom
Total area concentration units
The remaining units are taken in an approved area of emphasis (AREM). The area of emphasis is comprised of 12-16 units that the students must complete as part of the Curriculum, Teaching, and Learning Master of Arts program. The AREM is designed by the student and a Curriculum, Teaching, and Learning faculty advisor. Students may select courses from other education M.A. concentrations or courses in other University schools and departments. A field component may comprise part of the area of emphasis. The AREM must be approved by a faculty advisor before any AREM courses are taken.
An AREM in educational technology is available for those interested in applying aspects of technology in educational or private sector settings. A written rationale must accompany the AREM proposal. The total number of units in the Curriculum, Teaching, and Learning Master of Arts Program is 30-36 units. All candidates must complete the required master's degree core courses, and all AREM and program courses.

## Curriculum, Teaching and Learning Recommended Course Advising Pathway

By following the advising pathway below, students are assured that they will complete the required Curriculum, Teaching, and Learning (CT\&L) coursework and take the courses in the sequence required by the program. This pathway assumes that students will take TWO classes per semester. For changes to this pathway, students must see the CT\&L advisor. Students may not take an AREM course without an approved AREM.


# EDUCATION: EDUCATIONAL LEADERSHIP AND SPECIAL EDUCATION (ELSE) 

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Leslie Mouton
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## Faculty

Emiliano Ayala
Mary Dingle
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Viki Montera
Paul Porter

## Department Overview

The Department of Educational Leadership and Special Education exists to provide state-of-the-art professional preparation for educators in the fields of educational administration and special education. The core values of the department center upon a dedication to educational excellence as a pivotal contributor to social progress. Indices of this notion of excellence include a view of schools as a crucible for an effective democracy, societal inclusivity, respect for differences in students, and an unflinching concentration on educational efficacy.

The faculty is comprised of teachers, administrators, scholars, researchers, and program developers who possess wide and varied experience. The faculty, having won wide recognition and numerous educational awards and honors, are dedicated to preparing educators with the knowledge, skills, and ethical commitment to improve society through powerful and effective schools.

The credential and M.A. programs, described below, offer a full complement of courses and fieldwork for students to achieve Preliminary Education Specialist (known as PASC I and II in the case of educational administration) credentialing, as well as master of arts degrees. Both traditional and intern programs exist. Courses are scheduled in the late afternoon, evenings, on Saturdays, and some are partially delivered online, in order to accommodate practicing educators.

Students in the Department of Educational Leadership and Special Education may expect to encounter programs that present cutting-edge information and skills, delivered by an expert, committed faculty, and scheduled for maximum access. Moreover, students can expect to be afforded respect, dignity, and profession-
ally courteous treatment and be asked to provide similar regard to faculty and to one another.

Note: Since some specific program requirements change periodically, both via mandates of the California Commission on Teacher Credentialing and University-based modifications, prospective students are advised to consult the School of Education's Credential Office for updates on program details and policy statements and to visit the education website at www.sonoma.edu/education.

## Programs Offered

## BASIC TEACHING CREDENTIALS

Education Specialist (special education)/Preliminary and Intern: Mild/Moderate, Moderate/Severe Disabilities

SERVICE CREDENTIALS
Administrative Services - Preliminary, Intern, and Professional
MASTER'S DEGREE (M.A.) PROGRAMS
Educational Leadership
Special Education
Doctorate of Education (Ed.D.)
Educational Leadership (jointly with UC Davis). For information call 707-664-4051.

The Education Specialist (special education) credentials are offered in the area of mild/ moderate and moderate/severe disabilities and authorize the holder to provide services in K-12 inclusion programs, resource specialist program classes (RSP), special day classes (SDC), or other related fields, including work with adults with disabilities. At the completion of the educational specialist credential programs, candidates will have met the requirements to teach students who are English learners.
The Administrative Service Credentials, Preliminary Administrative Services (PASC I), and Professional Administrative Services (PASC II) prepare graduates for positions of leadership in K-12 educational institutions. PASC II is offered alternate years on an as-needed basis.
M.A. in education programs are designed with both full-time and part-time students in mind. Some master's degree programs may be taken concurrently with advanced credential programs. Note: Program requirements change periodically, and current information may not be available in this catalog. For more detailed information on credentials and other education programs, please see the University's special bulletins and the School of Education's current program brochures and policy statements or visit the education website www.sonoma.edu/education.

## Preliminary Level I Education Specialist Credential in Mild/Moderate or Moderate/Severe Disabilities

A Preliminary Education Specialist Credential Program is offered in the areas of mild/moderate (M/M) disabilities and moderate/severe (M/S) disabilities, authorizing the provision of services to individuals in grades K -12 in inclusion programs, resource specialist program (RSP) settings, special day class (SDC), and working with adults. The credential in M/M disabilities authorizes the teaching of individuals with specific learning disabilities, mental retardation, other health impairment, and serious emotional disturbance. The credential in M/S disabilities authorizes the teaching of individuals with autism, mental retardation, deaf-blindness, serious emotional disturbance, and multiple disabilities.

A multiple subject or single subject credential is not required as a prerequisite for admission to a credential program in special education. The Preliminary Education Specialist Credential Program in M/M disabilities and in M/S disabilities includes specified course work in multiple or single subject teacher education for those Education Specialist Credential candidates who do not hold a multiple subject or single subject credential.

Successful completion of the Preliminary Education Specialist Credential Program in mild/moderate disabilities or in moderate/ severe disabilities will allow the candidate to receive a preliminary Certificate of Eligibility, which authorizes the individual to seek initial employment as a special educator. On securing a special education teaching position, the candidate is eligible to receive a Preliminary Credential that is valid for five years. The Preliminary Education Specialist Credential holder must complete a Professional Credential Program within five years of the date of issuance of the Preliminary Credential.

## Education Specialist Course Requirements

## Co-Requisites (3 semester units):

EDSP 400 Foundations of Special Education (Required course for all E.S. candidates

## General Teacher Education Coursework (7 semester units):

EDMS 463 Teaching Reading and Language Arts in Elementary School (includes a field work component)
EDSS 446 Language and Literacy across the Curriculum: Middle and Secondary Schools)

Common Core For Education Specialists (15 semester units):
EDSP 421A Effective Practices that Support Students with Diverse Learning Needs

EDSP 421C Using Educational and Assistive Technology
EDSP 422A Case Management and Transition Planning in Special Education
EDSP 422B Participant Observation/Fieldwork
EDSP 423 Assessment, Curriculum and Instructional Strategies for Students with Disabilities
EDSP 424 Positive Behavior Support for Students with Disabilities

Credential-Specific Curriculum (7-9 semester units):

## Mild/Moderate Disabilities

EDSP 425 Developing Academic Performance for Students with Disabilities

Moderate/Severe Disabilities
EDSP 428 Teaching Students with Moderate to Severe Disabilities
EDSP 426 Communication Development: Assessment \& Instruction 4
**Student Teaching (13 semester units):
EDSP 460 Teaching Event Seminar (all candidates) 4
EDSP 465 Student Teaching: M/M candidates only 9
EDSP 467 Student Teaching: M/S candidates only 9
** Taking more than 5 additional units of coursework while enrolled in student teaching and the associated seminar requires prior approval of the department.

## Educational Specialist Intern Program

The Education Specialist Intern Program at Sonoma State University is a partnership with the North Coast Beginning Teacher Program (NCBTP), a state approved university-based program. This program allows the intern to complete the requirements for an Education Specialist Level Preliminary (ES-1) credential concurrent with their first year or two in a paid special education teaching position. The program includes coursework at the university, university supervision in the K-12 classroom, a district support provider, and special support seminars provided by NCBTP. Completion of an internship program results in the same credential as is earned through the traditional teacher preparation program.

To qualify for an internship program, an individual must:

- Be formally admitted to the university and the ES-1 program;
- Possess a bachelor's degree;
- Satisfy the U.S. Constitution requirement;
- Have a job offer as a special education teacher;
- Successfully complete the Intern Application Evaluation which includes approval from the Special Education Program faculty and the School of Education Credential Analyst; and
- Meet Pre-Service Requirements.

The Intern Application Evaluation form verifies that these requirements have been met and is available online at http://www. sonoma.edu/education/programs.html\#esinternship or in the School of Education.

Interns are bound by the same program requirements, policies and procedures as all ES-1 candidates except for the student teaching requirement. Instead of student teaching in the final semester of the program, which is typical in the ES-1 credential program, interns are provided with university supervision in their K-12 classrooms throughout their internship, typically ranging between two and three semesters. Supervision includes candidates attending the intern seminar (EDSP 481) where they meet with their supervisor and other interns to discuss their classrooms while bridging theory and practice, gathering suggestions and support, and discussing topics that are applicable to their current teaching situations.

Because of the increased responsibilities that an internship demands, interns are not allowed to take more than 12 units each semester. This sometimes alters an ES-1 candidate's original program plan, delaying completion of the credential program by one or two semesters. The intern credential is valid for up to two years, provided the intern continues to be enrolled in university classes and employed as a special education teacher. It is important that the intern completes both the university course work and all statutory requirements before the intern credential expires. Interns who do not hold a previous multiple or single subject credential must also pass the Reading Instruction Competence Assessment (RICA) as part of their statutory requirements.

## Employment Verification

Employment must be verified by a letter of employment, on official letterhead from the employing school or district, verifying the date employment began, the type of assignment and location, and whether it is a full time or part time position (if it is part time the letter needs to specify the percentage of time you will be working).

## Intern Application Interview

The Intern Coordinator conducts the intern application interview. The interview evaluates the candidate's academic achievement, progress, professional dispositions and responsibilities.
Please note: eligibility and admissions requirements to the Intern Program are subject to change. Please contact the Intern Advisor for current eligibility and admissions requirements.

## Master of Arts with a Concentration in Special Education

The Master of Arts in Education (M.A.) with a concentration in Special Education provides advanced academic study for persons working with or on behalf of individuals with disabilities. Candidates who possess a valid Education Specialist Credential may pursue this degree. Candidates from related disciplines may pursue this advanced degree with consent from the Department of Educational Leadership and Special Education.
Candidates must apply and be admitted both to the University and to the M.A. in Education-Special Education Concentration program in order to pursue this degree. The course of study (described below) includes the M.A core curriculum (12-19 units) and relevant elective course work (units vary). Candidates will select one of the following pathway options for completing their M.A. course of study:

Thesis/Project option (30 units)
Cognate option (36 units)
Individualized Examination option (33 units)

## Special Education Concentration

The Special Education coursework, taken in addition to the M.A. core curriculum, includes six 3 -unit courses.
EDSP 512 Advanced Issues in Assessment, Curriculum, and Instruction of
Students with Disabilities
EDSP 513 Current and Emerging Research and Practice in Special Education 3
EDSP 514 Advanced Communication, Collaboration, and Consultation in Special Education
EDSP 515 Advanced Legal Issues in Special Education 3
EDSP 590 Critical Issues in Special Education 4
EDSP 595 Special Topics in Special Education 3

## Electives

Candidates have the opportunity to seek breadth or depth in a related area of study through completion of elective courses. The number of elective units needed to complete the M.A. requirements varies depending upon the culminating option selected. Elective coursework may be drawn from other graduate programs in the School of Education or other departments at Sonoma State University, such as psychology, counseling, kinesiology, or others. These courses are selected with the advice and approval of the M.A. special education advisors.

## Advising

All M.A candidates within the special education concentration will be assigned to a special education faculty advisor for the purpose of developing an individualized program of study. Electives will be determined in consideration with the advisor, in an effort to provide a broader program of study that responds to varying student interests.

## Educational Leadership Program Administrative Service Credentials

The Administrative Services Credential programs were designed collaboratively with school administrators to prepare graduates for positions of leadership in K -12 educational settings. Both the PASC I (Preliminary Administrative Services Credential) and the PASC II (Professional Administrative Services Credential) credentials authorize the holder to serve as a vice principal, principal, coordinator, program director, superintendent, or in other district or county level positions. The Intern Credential authorizes individuals to serve in administrative positions while completing the approved program of PASC I study. Areas of competence addressed in each program are developmental and expand upon prior learning and experiences included in each level of preparation. Throughout all programs, participants progress from concrete applications of what is being studied to more advanced applications of theory into practice that call for the critique and redefinition of one's knowledge base. Likewise, throughout the programs, multiple learning opportunities are provided that emphasize the acquisition of personal awareness and personal reflection about leadership.

## Preliminary Administrative Services Credential

The Preliminary Administrative Services Credential (PASC I) program focuses on entry-level skills for effective administration with particular emphasis on the responsibilities of school site administrators. The program is 27 semester units and can be completed in one year of intensive study. The classes are offered on a cohort basis in late afternoons, evenings, and/or in periodic weekend class sessions (Friday evening and Saturday) spread throughout the semester.

## Requirements for Admission for Preliminary Administrative Services Credential

1. General admission requirements for advanced credential programs (application, transcripts, etc.)
2. Verify three years of appropriate full-time experience on school or district letterhead (noting inclusive dates, level, and responsibilities) authorized by a teaching or services credential;
3. Secure favorable recommendations from two school administrators or other school leaders indicating possession of administrative and leadership potential;
4. Submit evidence of successful passage of CBEST before or within the first semester of program course work; and
5. Attend a program admissions interview and/or submit an application, including a statement of professional goals.

## Internship Program In Educational Administration

Candidates to be employed immediately may enter the program as an administrative intern at any point in the calendar year as long as there is a supporting educational agency request. Candidates enrolled as interns complete the same coursework as PASC I candidates; however, the fieldwork is modified to suit the needs of an intern.

## PASC I/Intern Program Course Of Study

EDEL 580A Introduction to Educational Leadership and School Mgmt
EDEL 580B Advanced Educational Leadership and School Mgmt
EDEL 581 Mgmt of Educational Personnel: Policies and Procedures
EDEL 582 Educational Policy and Politics
EDEL 583 School Law
EDEL 588 Educational Curriculum, Instruction, and Program Assessment
EDEL 589 Leadership for Diverse Populations and Communities
EDEL 587A Beginning Field Experience in Administration
EDEL 587B Advanced Field Experience in Administration
Total units for PASC I/Intern programs
The program is usually completed in two semesters and sometimes summer session(s); however, candidates can extend the time needed for program completion by meeting with an advisor and customizing the program to meet individual needs. Typically candidates who do not have an M.A. go on to complete the M.A. in education with emphasis in education leadership.

## Professional Administrative Services Credential

The Professional Administrative Services Credential program (PASC II) offers advanced study and fieldwork for practicing administrators in all areas of educational leadership. The program consists of 12 semester units of coursework and focuses on candidates examining the six administrative standards adopted by the CCTC. This program is offered alternative years on an as-needed basis. Please contact the ELSE department for current information. The course work is offered in periodic weekend class sessions spread throughout the semester.

In addition to the general admission requirements for advanced credential programs, Professional Administrative Services Credential (PASC II) candidates must:

1. Verify grade point average of at least 3.00 in the last 30 semester units;
2. Secure favorable recommendations from two school administrators indicating applicant's administrative and leadership capability and current administrative activities and accomplishments; and
3. Provide two photocopies of a valid Preliminary Administrative Services Credential.

The Professional Administrative Services Credential program is restricted to those formally admitted to the program. Employment in an administrative position requiring a Preliminary Administrative Services Credential is required for admission into the program.

## PASC II Program Course Of Study

EDEL 590A Induction Plan 2
EDEL 596A Introduction to Advanced Educational Problems 2
EDEL 596B Completion of Advanced Educational Problems 2
EDEL 596C Introduction to Collaborative Action Research 2
EDEL 596D Completion of Collaborative Action Research 2
EDEL 590B Assessment of Completion of Induction Plan 2
Total units for PASC II program

## Master of Arts with a Concentration in Educational Leadership

The objective of the M.A. degree program with concentration in educational leadership is to provide a strong academic foundation for competent administrative practice. The program is 30 semester units inclusive of course requirements for the PASC I program.

The M.A. degree with an emphasis in educational leadership is built upon the M.A. core curriculum of the School of Education. Candidates may refer to the previous section on requirements for the M.A. Degree in education for a complete description of the master of arts program.

## CANDEL

The CANDEL (Capital Area North Joint Doctorate in Educational Leadership) Program is a doctoral program designed to produce exemplary educational leaders for schools, community colleges and related areas in the field of education. The program is designed for working professionals in leadership positions.

CANDEL is a joint program of Sonoma State University and the University of California, Davis. Graduates of this program are prepared to provide visionary leadership to complex organizations, put policy into practice, use data for decision-making, and build community in a diverse society.
The program is three years in length. Through the preparation of scholar-leaders, the program emphasizes practical problem-based learning through critical examination of important issues in our schools and community colleges.
Dr. Paul Porter of the School of Education Department of Educational Leadership and Special Education serves as the SSU CANDEL Director. For more information and an application, please visit the CANDEL website at http://candel.ucdavis.edu/.

# EDUCATION: LITERACY, ELEMENTARY, AND EARLY EDUCATION (LEEE) 

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Johanna Filp-Hanke
Hee-Won Kang
Paula Lane
Kathy Morris
MaryAnn Nickel

## Programs Offered

The Department of Literacy, Elementary, and Early Education offers the following programs: Early Childhood Minor, Child Development Permit, Multiple Subject Credential, M.A. in Education with an emphasis in Reading and Language Education, Reading Certificate (an advanced credential), Reading and Language Arts Specialist Credential, and M.A. in Education with an emphasis in Early Childhood Education.

The goal of the Department of Literacy, Elementary, and Early Education is to prepare teachers to play a vital role in California public schools. The diversity of our school population in terms of culture, social class, gender, language, and race is a significant focus of our course work and field experiences.

The University and the school districts within our service area view teacher education as a shared responsibility. The University provides a broad base of information about research and theory necessary for teaching, while school districts provide the classrooms for field experiences and student teaching. Collaboration between University-based teacher-educators and school district teachers provides a strong foundation for the program's goal of excellence.

## Multiple Subject Teaching Credential Programs

This credential authorizes the holder to teach in a self-contained classroom, preschool through grade 12. It is most frequently used for teaching in elementary classrooms and early childhood settings.

## Multiple Subject Credential Program

The Multiple Subject Credential Program is a two semester program with additional prerequisites required.

The Multiple Subject Program is based on the belief that learning to teach requires building a professional knowledge base honed by practice in varied classroom settings. Thus, our curriculum integrates course work with field study in order to develop practical theory and to promote collaboration between the University and the public schools. The Multiple Subject Program prepares candidates to provide instruction for English language development and academic language.
The multiple subject emphasis prepares candidates to teach in self-contained classrooms with significant populations of students who are learning English as a second language in grades K-12. This program prepares candidates to provide instruction for language development and subject matter content in English. Because self-contained classes are located primarily in elementary schools, professional course work and field experiences focus on elementary classrooms.

## SB2042 Multiple Subject Program Courses

The Department of Literacy, Elementary, and Early Education offers a Multiple Subjects Emphasis Certificate providing professional preparation for aspiring teachers to play a vital role in California public schools. The diversity of our school population in terms of culture, social class, gender, language, and race is a significant focus of our course work and field experiences. Upon completing the program, candidates will have both breadth and depth of knowledge about teaching and learning, and candidates will be capable of making informed decisions in diverse settings. The design of Sonoma State University's Multiple Subjects Professional Teacher Preparation Program is based on models of learning, human development, and interaction supported by current policy, research and practice. The program is developmental and sequential.

## Prerequisites And Co-requisite

The prerequisites/corequisites are offered every semester and must be taken before admission into the program.
EDUC 417 School and Society, or approved alternative 3
EDEC 420 Child Development in Family, School, and Community 3
EDMS 470 Multicultural Pedagogy (co-requisite) 3
Total Prerequisite/co-requisite units for Multiple Subject Program

| Phase I |  |
| :---: | :---: |
| All Phase I courses require admission to the Multiple Subject Program or the Special Education Program. Courses are grade only. |  |
| EDMS 411 Second Language Pedagogy | 3 |
| EDMS 463 Teaching Reading \& Language Arts to Beginning Learners | 3 |
| EDMS 474 Teaching Mathematics in the Elementary School | 3 |
| EDMS 475 Teaching Science in the Elementary School | 3 |
| EDMS 476F Participant Observation | 3 |
| EDMS 476S Participant Observation Seminar | 2 |
| Total Phase I units | 17 |
| Phase II |  |
| EDMS 464 Teaching Reading to Older and Struggling Readers | 3 |
| EDMS 471 Teaching Social Science in a Multicultural Society | 3 |
| EDMS 482F Student Teaching and Seminar | 10 |
| EDMS 482S Student Seminar | 2 |
| Concurrent with 482F |  |
| Successful completion of Performance Assessment of California Teac |  |
| Total Phase II units | 18 |
| Total Program | 35 |

## Field Experiences in the Multiple Subject Program

The primary goal of the Multiple Subject Program is to prepare candidates to teach successfully in California's public schools. This requires both a theoretical basis for teaching and learning and a practical understanding of children, classrooms, curriculum, schools, and the society in which they all operate. For this reason, all of the curriculum courses have been designed to include significant field experiences in schools. In each phase, field experiences are coordinated with one or more academic courses to help establish the relationships between the theories and practices learned at the University and the realities of classroom life. Involvement in the schools culminates in full-time student teaching during the last phase of the credential program.

## Collaboration for Renewal of Education (CORE): Professional Development Through Teacher Preparation

Our model of teacher preparation, Collaboration for the Renewal of Education (CORE), goes beyond that of a traditional student teaching placement. CORE has grown out of a rich history with roots in the clinical observation, peer coaching, and team models of professional development. CORE draws from this background and incorporates the best characteristics from these models. CORE is purposely structured to give equal voice to all participants, to honor all participants as lifelong learners, and to view everyone as a co-teacher. The model attempts to breakdown the stereotypes of the ivory tower and to bridge the gap between public school and university educators. Simply stated, everyone is an expert in areas of strength and everyone has something to learn. The Multiple Subject Program has developed a flexible organization for teacher preparation that acknowledges the contribution made to candidates' teacher preparation by public school teachers and administrators.

The program purposefully builds in time to meet with mentors at the CORE site, to hear what they are thinking, to implement their ideas into the program, and to learn together. It is not typical for university faculty to commit to spending one day a week in a public school for the purpose of supervising student teachers. That the LEEE faculty eagerly participates in this experience is evidence of the value placed on this aspect of the Multiple Subject Program.

## CORE School Sites

The LEEE department has developed a variety of CORE sites in the SSU service area. CORE sites are established in Sonoma County (Cotati/Rohnert Park, Petaluma, Santa Rosa, Windsor), Marin County, and Napa County.

## Overview of Field Experiences

There are two components of supervised fieldwork in Sonoma State University's Multiple Subject Credential Program, occurring in the first and second phases. These field experiences take place in a school that has been selected as a University/Public School CORE Collaboration Site. During both of these field experiences, the credential candidates are supervised by both a University faculty member and a mentor teacher who has met specific criteria for selection and who meets with University faculty regularly each semester. Those who opt to complete the program in more than two phases, the FLEX students, will complete these supervised classroom experiences during their last two semesters.

During the two semesters that candidates are placed at a CORE site, they are expected to experience the full range of teaching that one is likely to meet as a salaried teacher: candidates are expected to teach connected reading and language arts lessons, connected hands-on math and science lessons, and culturally relevant multicultural social studies lessons. Candidates are expected to have experience working with individual students, small groups, and whole class instruction. Candidates are expected to prepare curriculum plans that reflect an understanding of first and second language learners' needs and demonstrate sound methodologies and strategies. Candidates are expected to design and deliver curriculum for all learners including those with special needs such as special education students and the students who are gifted or those who are progressing at a higher rate than is typical. Candidates are expected to use the methodologies, curriculum, and strategies that introduce thematic teaching to help students make connections across subject areas. Candidates are expected to contribute to the building of community in the classroom and their curriculum should reflect sound multicultural principles.

## Teaching Performance Assessment

A teaching performance assessment (TPA) is required for all those seeking a multiple subject teaching credential. The Performance Assessment for California Teachers (PACT) is the teacher performance assessment used by the Multiple Subject Program. This assessment is comprised of a teaching event that is an extended documentation of a segment of student teaching. It is the capstone performance
assessment that integrates learning throughout the teacher education program. It includes $3-5$ connected lessons of teaching that are videotaped and analyzed by the student. It is structured in sections corresponding to developing a context for learners, planning, teaching, assessing, academic language, and reflection on teaching. A subject matter expert scores the teaching event. The teaching event takes place in Phase II (student teaching) of the program. All students must pass the PACT to receive a teaching credential.

## Multiple Subjects Intern Program

Student teaching while employed in a school program is permitted, contingent upon approval of the School of Education Credential Analyst and the Intern Coordinator. The department Chair may be consulted at any point during the process of approval. The intern coordinator is available to assist prospective interns in each of the following application and program steps.

## Intern Process

As part of the approval process a student must be:

- Formally admitted to the University;
- Formally admitted to the Multiple Subject Program;
- Meet the program statutory requirements; and
- Meet the pre-service requirements.


## Application Process

An application, initiated by the student, must be made to the credential analyst in the School of Education. When the applicant is cleared of all statutory requirements, he or she must schedule an appointment with the Intern Coordinator for a review of the course requirements and make a program plan for the completion of the Multiple Subject Program.
The Multiple Subject Intern Application can be found on the School of Education website at http://www.sonoma.edu/education/ programs.html\#msinternship.

## Additional Requirements

- A letter of employment clearly stating the percentage of teaching time, the dates of employment, and a brief job description; and
- Interns and their school sites need to provide a school site mentor responsible for working with and supporting the intern on site.


## Role of an Intern

An intern is the same as a paid student teacher. Multiple Subject Program candidates may become interns when they complete the application process and meet both the statutory and pre-service requirements. An intern may be either part-time or full-time in the classroom. However, a part-time intern must be employed for at least a $50 \%$ contract. Interns must follow the same expected competencies as a student teacher as outlined in the Multiple Subject

Program handbook, be observed by an assigned University supervisor periodically, meet the same assessment portfolio criteria, and spend the same amount of time in the classroom and no less than that of a non-paid student teacher. Interns and University supervisors follow the same roles and responsibilities as outlined in the Multiple Subject Program handbook.
A calendar of formal observation and evaluation will be determined among the Intern Coordinator, the University supervisor, the school principal, and site mentor. The intern is expected to assist in the scheduling and coordination of observation, debriefs, and evaluation. Recommendation of the individual who is student teaching in a paid situation is not automatic; all appropriate standards as outlined in the Multiple Subject Program handbook must be met before the credential will be recommended.

## Early Childhood Programs

The Department of Literacy Studies and Elementary Education offers a minor in early childhood education and a master of arts in $\backslash$ education with concentration in early childhood education. Candidates may also use early childhood education courses to satisfy requirements for the Child Development Permit currently in effect for teachers of California state-funded preschool and after-school programs.

## Early Childhood Education Minor

The minor in early childhood education gives students from any major at Sonoma State University a concentration in the study of early childhood development and learning. This minor is useful for students interested in pursuing careers involving work with young children from birth through age eight in fields such as education, counseling, psychology, social work, nursing, and others. For a minor in early childhood education, students must take four upperdivision core courses in early childhood education (15 units) and an additional nine units of elective courses, for a total of 24 units. Complete information about the requirements for the minor and complete application packets may be found online at http://www. sonoma.edu/users/f/filp/ece/ece_minor.htm.

## Program Course Work

The early childhood education minor involves 24 units of coursework: 15 units of upper-division core courses and 9 units of electives, which may be lower-division courses. The courses can be completed in four semesters, together with the coursework for the major.

## CORE COURSES

EDEC 420 Child Development in the Family, School and Community

## ELECTIVE COURSES

## Select 3 courses from:

EDEC 239 Introduction to Early Childhood Education
EDUC 250 Teaching in a Changing World
EDMS 470 Multicultural Pedagogy
EDUC 417 School and Society
KIN 410 Life Span Motor Development
AMCS 405 Ethnic Families in America
or CALS 405 The Chicano Latino Family
AMCS 460 Multiethnic Children's Literature
or CALS 450 Chicano Latino Children's Literature
ENSP 440 Education and the Environment
THAR 460 Drama for Children
THAR 470 Dance for Children

Other elective courses may apply; please consult with an advisor.

## Child Development Permit

The California Child Development Permit is issued by the Commission on Teacher Credentialing (CTC). The permit is organized into different levels, each authorizing the holder to perform different levels of service in child development programs. Sonoma State University is authorized to process Child Development Permit applications at the assistant teacher, associate teacher, and teacher levels for preschool programs. Additional information and application packets are available online at http://www.sonoma.edu/users/f/ filp/ece/permit.htm.

## Program Course Work

## Child Growth and Development

PSY 302 Development of the Person
PSY 410 Child Development
EDEC 420 Child Development in the Family, School and Community
EDEC 538 The Development of Language and Thinking, Infancy
through Middle Childhood
EDEC 532 Social-Moral Development in Childhood
Child, Family, and Community
PSY 418 Psychology of the Family
*EDEC 420 Child Development in the Family School and Community
SOC 345 Family Systems
AMCS 405 Ethnic Families in America

## Early Childhood Programs/Curriculum

EDEC 331 Child Study and Observation
EDEC 437 Integrated Curriculum Preschool through Elementary School
**EDEC 537 Authentic Assessment in Preschool and Primary Programs

## General Early Childhood Development

LING 430 Language Acquisition and Communicative Development
*EDEC 420 can be used to satisfy either the child growth and development requirement or the child/family/community requirement, but not both. You must choose an additional course to satisfy both requirements.
**Courses at the 500-level are graduate level courses.

## Master of Arts in Education - Concentration in Early Childhood Education

The early childhood education concentration of the master of arts in education degree is designed to prepare teachers to work in schooland community-based programs that serve children from infancy through third grade (ages birth to age eight), and to take leadership roles in the field of early childhood education.

Required coursework focuses on advanced study of development in cognition, language, physical ability, morality, and social and emotional skills; work with diverse families and young children; and improvement of classroom curriculum and assessment from infancy through the primary grades. Candidates do not need to possess a teaching credential, since they may prepare for leadership and advocacy positions in a variety of settings. However, a basic course in child development and at least one year of experience working with children in educational settings are prerequisites for admission to the program. Complete information about the program is available online at http://www.sonoma.edu/users/f/filp/ece/ma_ece.htm.

## Program Coursework

The total number of units of the program varies from 30-36 semester units, depending on the culminating path selected by the students. The following is a list of the courses that Early Childhood Education master's candidates take.

## Education Core (6 units in EDUC courses)

EDUC 570 Reflective Educator 3

EDUC 571 Research Paradigms in Education 3

## Required ECE Core Courses in Concentration (12 units)

EDEC 531 The Role of Play in Development and Learning
offered fall of odd numbered years
EDEC 532 Social-Moral Development in Childhood

EDEC 537 Authentic Assessment in Preschool and Primary Programs offered spring of odd numbered years
EDEC 538 The Development of Language and Thinking in Infancy through Middle Childhood
offered spring of even numbered years

## PLUS

## Electives (6 units)

At least two courses in the areas of special education, curriculum teaching and learning, reading and language, and/or special topics ECE-M.A. courses as offered will be chosen in consultation with the ECE advisor and the graduate advisors of the above mentioned areas. Some examples of course options are:

## Special Education

EDSP 422 Collaborative Partnerships in Special Education
EDSP 423A Assessment, Curriculum and Instructional Strategies EDSP 432 Designing Inclusive Environments in Early Childhood Education

## Curriculum Teaching and Learning

EDCT 585 Curriculum Development: Theory, Practice and Evaluation EDCT 586 Teaching and Learning: Research and Application in the Classroom

## Reading and Language

EDRL 507 Research in Language and Literacy
EDRL 521A Language Development in First and Second Languages
EDRL 524 Literature and Literacy

## Reading and Language Programs

The Department of Literacy Studies and Elementary Education offers three graduate programs to support in-depth exploration of language development, literacy learning, and teaching. The programs feature hands-on experiences that are immediately applicable in the classroom. Many of our students earn a state license and a master's degree simultaneously. Please explore our site at www.sonoma.edu/see/reading/index.html.
The Reading and Language Program is dedicated to excellence in the preparation of teachers and the on-going professional development of practicing teachers in the areas of bilingual education, and reading and language arts education. Our programs are based on sound educational practice, current research knowledge, sensitivity to the needs of K -12 education, appreciation for diversity, and respect for all learners.
M.A. in education programs are designed with both full-time and part-time students in mind. Some master's degree programs may be taken concurrently with advanced credential programs.
Note: Program requirements change periodically, and current information may not be available in this catalog. For more detailed information on credentials and other education programs, please see the University's special bulletins, the University website, and the School of Education's current program brochures and policy statements.
The Department of Literacy Studies and Elementary Education offers graduate programs in reading and language including the master's degree with an emphasis in reading and language; the Reading Certificate; an advanced credential; and the Reading and Language Arts Specialist Credential. Many students earn a state license and a master's degree simultaneously. These programs may be taken individually or candidates may complete the M.A. degree program and the Reading Certificate/Reading and Language Arts Specialist Credential simultaneously.

## Reading and Language Master's Degree Program

The reading and language concentration is designed to prepare teachers for specialized teaching of reading and language arts and for curriculum and instructional leadership in the field of language and literacy. Required course work focuses on the nature of literacy
development and the improvement of classroom curriculum, and methods that emphasize the relationship of reading to other language and concept learning.

## Program Coursework (30-36 units)

## Reading/Language Core Courses (9 units)

EDRL 507 Research in Language and Literacy 3

EDRL 521A Language Development in First and Second Languages 3
EDRL 522 Assessment and Teaching in Reading and Language Arts
Education Core Courses (9-12 units)
EDUC 570 The Reflective Educator
EDUC 571 Research Paradigms in Education 3

## Supporting Course Work (9 Units)

The M.A. in reading/language education allows you to take 9 elective units (three courses, typically) in the reading/language project or in other approved areas, such as bilingual education, curriculum, ESL, and early childhood education.

Students who wish to pursue a Reading Certificate, Reading and Language Arts Specialist Credential, and an M.A. degree in reading and language education may complete the programs concurrently.

## Reading Certificate Program

The Reading Certificate prepares individuals to take a leadership role at the school site and emphasizes work with students who experience difficulties with reading. Reading Certificate teachers assist and support other classroom teachers, assess student progress, and monitor student achievement while providing instruction and intervention. They also play a consultative role in materials and program selection at the district and may take leadership responsibility within the more limited realm of the school site. The Certificate is the first part of a continuum of services to students and teachers in the area of reading and language arts. Teachers completing the Reading Certificate Program are encouraged to continue to earn the Reading and Language Arts Specialist Credential (currently under review by the California Commission on Teacher Credentialing).

## Program Prerequisite

A basic teaching credential is required for admission.

## Reading Certificate Prerequisite

Three years of teaching experience is required for awarding of the Reading Certificate, however it is not necessary to have three years of experience when entering the program.

## Block One: Developing a Personal Model of Literacy

## Spring

Students take part in an integrated investigation of Literacy Research/Theories/ Beliefs/Practices aimed at developing a working understanding and reflective stance for each of these themes through in-depth case studies of English language learners. The breadth and depth of the themes ensure that candidates examine and understand the nature of fluent reading and comprehension, assessment approaches, planning and delivery of reading intervention and instruction, and best practices in assisting classroom teachers of English-only
and English language learners. Focused field experiences and assessment that lead to purposeful reading instruction permeate this block.

EDRL 521A Language Development in First and Second Languages
EDRL 522 Assessment and Teaching in Reading and Language Arts On-Campus Reading and Writing Clinic

## Summer

Public school students attend SSU for reading improvement and enrichment in a supervised clinical setting. Certificate candidates assess and teach these students, deepening knowledge of reading and language arts assessment, intervention, and instructional strategies, in collaboration with, and under the supervision of, clinical faculty, University faculty, and Reading and Language Arts Specialist candidates.

EDRL 527A Clinical Field Experience in Reading and Language Arts

## Block Two: Developing a Professional Model of Literacy

## Fall

Investigation of research/theories/beliefs/practices in teaching reading and writing, designed to produce a professional knowledge base for each of these themes. Candidates develop a comprehensive set of strategies for promoting fluent reading and comprehension, planning and delivery of literature-based reading curriculum, and assessment-based intervention and instruction. Candidates are prepared for literacy and language arts leadership roles at the school level.

EDRL 521B Reading and Language Arts in First and Second Languages EDRL 524 Literature and Literacy

## Reading and Language Arts Specialist Credential

The Reading and Language Arts Specialist Credential prepares candidates to work with students in various settings and to perform multiple roles, including assisting and supporting classroom teachers in the appropriate assessment and instruction of reading and writing for all students across all grade levels. The specialist may also:

- Provide direct services to students to help them attain independence in reading and writing, including comprehension and critical thinking skills;
- Do demonstration teaching and curriculum planning for groups and individuals;
- Organize and manage language arts programs at the district or school level;
- Assess teaching strategies to assist teachers in creating a literacy learning environment;
- Provide leadership in materials, textbook, and program selection at the district or school level; and
- Plan and conduct in-service professional development activities for teachers, administrators, school board members, parents, and members of the community at the district or school level.


# Credential prerequisite requirements: All Reading Certificate courses including Certificate prerequisites 

Block Three: Developing Research-Based Literacy Theory

## Spring

Continued investigation of research/theories/beliefs/practices aimed at developing thorough understanding and a reflective stance for each theme. Candidates examine and critique research-based curricular practices and assessment approaches in professional literature and field settings. Topics include fluent reading; comprehension, planning, and delivery of literacy curriculum; intervention strategies; best practices in assisting classroom teachers; and assessments that lead to purposeful reading and writing instruction.

EDRL 523 Curriculum Development in Language and Literacy
EDRL 529 Evaluation in Reading and Language Arts Programs

## Summer Reading and Writing Academy

## Summer

Public school students attend at summer reading and writing academy in the Roseland School District. Graduate students attend for supervised and observed coursework in assessing, analyzing and teaching reading and writing to students from grades 2-8 for reading improvement and enrichment. Specialist Credential candidates supervise Certificate candidates in assessment and intervention strategies with the students with diverse reading abilities and backgrounds. Candidates also demonstrate effective teaching for second language learners of English and struggling readers, conduct clinical conferences, review clinical reports, and monitor overall clinical experiences.

EDRL 527B Advanced Clinical Field Experience in Reading and Language Arts 3

## Block Four: Developing Professional Literacy Models

## Fall

Advanced and intensive investigation of research/theory/beliefs/practice. All coursework and field experiences are aimed at articulating a professional knowledge base for each theme. Candidates critique research into reading and writing for diverse student populations, conduct their own literacy studies, and hone their leadership skills for assisting classroom teachers and other educational professionals with literacy education through focused field experiences.

EDRL 507 Research in Language and Literacy
EDRL 525 Leadership and Policy in Literacy Programs

## Graduate Reading Advisor

Dr. MaryAnn Nickel of the School of Education LEEE Department serves as the Graduate Reading Advisor. For more information, please visit the Reading Program website at www.sonoma.edu/see/reading or contact Dr. Nickel at nickel@sonoma.edu.

## ENGINEERING SCIENCE

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## Programs Offered

Bachelor of Science in Engineering Science (Electrical Engineering with minor in Mathematics)

Minor in Electrical Engineering for non-ES majors
Master of Science in Computer and Engineering Science (Three tracks: Bioengineering, Communications and Photonics, and Computer Hardware and Software Systems)

Effective Fall 2011: Bachelor of Science in Electrical Engineering

As defined in Webster's Unabridged Dictionary, "Engineering is the science by which the properties of matter and the sources of energy in nature are made useful to [humankind]." The study of engineering science, with focus in electronics and communications, deals with the processing of information and energy in electrical and magnetic forms involving conceptualization and formulation of the ideas, design to manufacturing to application of many diverse electrical, electronic, and magnetic devices and systems.

The Bachelor of Science in Engineering Science (BSES) curricu-
lum is the electrical engineering curriculum with focus in electronics and communications. The program has been designed to prepare students for an exciting career in designing and manufacturing of electronic systems, communications systems and networks, microprocessors and computers, microwave and lightwave communications, and integrated circuits. The graduates of the proposed program will be well grounded in the rigorous scientific and theoretical foundations of the discipline. This will prepare them not only to have a successful career in the industry in the region and beyond, but also to enter and be successful in any advanced level graduate program of their choosing. The technical and liberal arts components of the curriculum provide students with the opportunity for gaining self-development, technical competence, and awareness of economic and ethical responsibilities.

The MS-CES curriculum, recognized as Professional science Masters (PSM) programs by the Council of Graduate Schools (cgs), is designed to further the working skills and practical knowledge of engineers, computer scientists and similar professionals and prepares them to be successful in the real world, exposing students to management training and providing practical real world experience through internships and graduate seminars. The firm base in mathematics, computer science and physics is augmented with a selection of engineering course options, which prepares the students for tackling real-world problems.

## Careers in Engineering Science

The BSES program has been designed to prepare students for an exciting career in industries or to pursue graduate degrees. The graduates will find opportunities in industry in areas such as:

- Designing and manufacturing of electronic systems;
- Communications systems;
- Networking;
- Computer engineering;
- Telecommunications;
- Optical fiber communications;
- Integrated circuits;
- Research and development in the areas above; and/or
- Sales, marketing, and management in the areas above.

Some examples of the corresponding job titles are electronics engineer, computer engineer, hardware designer, systems engineer, communications engineer, communications analyst, telecommunications engineer, network engineer, network analyst, sales engineer, applications engineer, and field engineer.

Graduate degrees can be pursued in any one of the many fields such as electronics, communications, networking, computer engi-
neering, and computer science.

## Bachelor of Science in Engineering Science (Electrical Engineering with focus in Electronics and Communications)

Consistent with the mission of the University, the mission of the Bachelor of Science in Engineering Science program is "to prepare students to be learned men and women who are capable of pursuing fulfilling careers in a changing world," and "to fulfill the undergraduate technical education needs of the community, business, and industry of the North Bay region." A broader mission is to enable graduating engineers to acquire knowledge and experiences to prepare them to pursue lifelong learning, advanced study, and leadership roles in business and community.

The B.S. in engineering science at Sonoma State University is an innovative program in which the curriculum has been designed to provide students with education in electrical engineering science with focus in electronics and communications.

The curriculum includes 51 units of General Education courses; a 35-unit core in mathematics, computer science, and basic sciences (9 units overlap with GE units); a 49-unit core in engineering sciences which includes electrical, computer, electronics, and communications engineering subjects such as circuits, analog/digital electronics, electromagnetic fields, microprocessors, analog and digital communications, and networking; and 6 units of engineering science electives which provides senior-level choices for more depth in students' areas of interest. Theoretical and practical learning experiences are an important part of all course work. The senior year also gives students the opportunity to consolidate their educational experiences with a capstone design project. The curriculum develops students' abilities to formulate problems, analyze alternatives, make decisions, and solve problems. Internship and co-op experiences will be encouraged to provide the students a real-world experience and to enhance students' communication and interpersonal skills.

## Program Educational Objectives

- Educate and prepare students to be successful in the profession of electrical engineering, particularly in the fields of electronics and communications;
- Educate students to successfully pursue graduate degrees; and
- Provide a strong foundation to the students for lifelong learning and to be responsible citizens.


## Program Outcomes

The students will attain:
a. An ability to apply knowledge of mathematics, science, and engineering;
b. An ability to design and conduct experiments, as well as to analyze and interpret data;
c. An ability to design a system, component, or process to meet
desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
d. An ability to function on multidisciplinary teams;
e. An ability to identify, formulate, and solve engineering problems;
f. An understanding of professional and ethical responsibility;
g. An ability to communicate effectively;
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
i. A recognition of the need for, and an ability to engage in lifelong learning;
j. A knowledge of contemporary issues;
k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice;
I. Knowledge of basic sciences, advanced mathematics and engineering and ability to apply that knowledge to analyze and solve practical problems in the field of electronics and communications; and
m . Expertise to design and conduct scientific and engineering experiments, analyze data and interpret results.

| Degree Requirements | Units |
| :--- | ---: |
| \#GE courses | 51 |
| Major requirement | 49 |
| Support courses (physics, |  |
| computer science, and mathematics) | 35 |
| Technical electives | 6 |
| Total units needed for graduation | $\mathbf{1 3 2}$ |

${ }^{\text {\# }}$ A list of recommended GE courses is posted at the department's website and is available in the department office.
*9 units overlap with GE units.

## Engineering Science

ES 110 Introduction to Engineering \& Lab Experience 2
ES 210 Digital Circuits \& Logic Design 4
ES 220 Electric Circuits 3
ES 221 Electric Circuits Laboratory 1
ES 230 Electronics I 3
ES 231 Electronics I Lab 1
ES 310 Microprocessors \& System Design 4
ES 314 Adv. Program., Modeling and Simulation 4
ES 330 Electronics II 3
ES 400 Linear Systems Theory 3
ES 440 Analog \& Digital Communications I 3
ES 441 Analog \& Digital Communications II 3
ES 443 Introduction to Optical Fiber Communication 3
ES 465 Introduction to Networking and Network Management 3
ES 430 Electromagnetic Theory \& Applications 3
Approved Technical Elective I 3
Approved Technical Elective II 3
ES 492 Senior Design Project Planning 2


Current List of Technical Electives
ES 480 Artificial Intelligence
3
ES 445 Photonics ..... 3CS 115 Programming IMathematicsMATH 142E Discrete Mathematics for Engineering2MATH 161 Calculus I4
MATH 241 Calculus III4
MATH 345 Probability Theory
General Education(Excluding math, physics, and CS courses)ENGL 101 Expository Writing \& Analytical Reading342
GPA Requirements

Please refer to this catalog and the department office for various general academic regulations and specific requirements for undergraduate students, such as grade point average requirement, course repeat policy, continuation in the program, etc.

## Minor in Mathematics

The course ES 400 Linear Systems Theory is crosslisted with MATH 430. As such, the BSES curriculum includes 25 units of mathematics including 6 units in upper-division (MATH 345 and MATH 430) required to minor in mathematics. Therefore, a student satisfying BSES degree requirement is automatically completing a minor in mathematics.

## Minor in Electrical Engineering (EE)

A pathway to minor in EE is currently being approved to provide an opportunity to students interested in gaining ability and training in
the field of electrical engineering. Students interested in receiving a minor in electrical engineering require 10 to 43 units depending upon the student's major field of study. A list of requirements for a minor in EE by students majoring in chemistry, computer science, mathematics, and physics disciplines is posted at the department's website and is available in the department office.

## Minor in Electrical Engineering (EE)

The Department offers a minor program in EE to provide an opportunity to any non-ES major student interested in gaining ability and training in the field of Electrical Engineering. Students interested in receiving a minor in Electrical Engineering require 10 units to 43 units depending upon the student's major field of study and the units available as free electives in the major that can be used by the EE minor program. The EE minor requirements are as follows.

## I. Course Requirements

To minor in Electrical Engineering, students must complete 24 units of Engineering science courses, 15 units of core courses and 9 units of electives, and 19 units of support courses in Mathematics, Physics as follows:

## Core Courses (15 Units):

ES 110 Intro. to Engineering \& Lab Experience 2
ES 210 Digital Circuits \& Logic Design 4
ES 220 Electric Circuits 3
ES 221 Electric Circuits Laboratory 1
ES 230 Electronics I 3
ES 231 Electronics I Lab 1
ES 497 Engineering Science Colloquium 1
Electives From The Following List (9 units):
ES 314 Adv. Program., Modeling and Simulation 4
ES 310 Microprocessors \& System Design 4
ES 330 Electronics II 3
ES 400 Linear Systems Theory 3
ES 430 Electromagnetic Theory \& Applications 3
ES 432 Physical Electronics 3
ES 440 Analog \& Digital Communications I 3
ES 445 Photonics 3
ES 465 Intro. to Networking 3

## Support Courses:

PHYS 114 Introduction to Physics I 4
PHYS 214 Introduction to Phys II 4
PHYS 116 Introductory Physics lab 1
MATH 142E Discrete Structures I 2
MATH 161 Calculus I 4
MATH 211 Calculus II 4
Total units without support courses

Additional support courses may be needed depending upon the

## Sample Four-year Program for Bachelor of Science in Engineering Science

## SEMESTER 1:: 15 Units

| ES 110 Introduction to Engineering \& Lab Experience | 2 |
| :--- | :--- |
| CS 115 Programming I | 4 |
| MATH 142E Discrete Mathematics for Engineering | 2 |
| MATH 161 Calculus 1 | 4 |
| ENGL 101 Expository Writing \& Analytical Reading | 3 |
| SEMESTER 2:: 15 Units |  |

## PHYS 114 Introduction to Physics I

PHYS 116 Introductory Lab Experience 1
MATH 211 Calculus II
GE
SEMESTER 3:: 18 Units
PHYS 214 Introduction to Physics II
MATH 241 Calculus III
ES 220 Electric Circuits
ES 221 Electric Circuits Lab
1
GE

## SEMESTER 4:: 18 Units

ES 210 Digital Circuits \& Logic Design (w/lab)
ES 230 Electronics I
ES 231 Electronics I Laboratory
MATH 261 Calculus IV
GE
SEMESTER 5:: 17 Units
ES 314 Adv. Program., Modeling and Simulation 4

ES 330 Electronics II (w/lab) 3
MATH 345 Probability Theory 4
ES 400 Linear Systems Theory 3
GE
SEMESTER 6:: 16 Units
ES 310 Microprocessors and System Design
ES 440 Analog and Digital Communications I
ES 430 Electromagnetic Theory \& Applications
GE
SEMESTER 7:: 18 Units
ES 441 Analog and Digital Communications II
ES 443 Introduction to Optical Fiber Communications
ES 465 Introduction to Networking (w/lab)
ES 492 Senior Design Project Planning
ES 497 Eng. Science Colloquium
GE
SEMESTER 8:: 15 Units
ES 493 Senior Design Project
Approved Technical Elective I
Approved Technical Elective II
GE
TOTAL UNITS:: 132
electives chosen. For example, ES 400: Linear Systems Theory requires a prerequisite of Math 241: Differential Equations with Linear Algebra and ES 314 requires a prerequisite of CS 115.

## II. Grade Requirement

The student must complete each course applied towards minor in Electrical Engineering with a grade of C or higher.

## III. Pathway Examples

Examples of the pathways to minor in EE by the students majoring in Chemistry, Computer Science, Mathematics, and Physics disciplines are posted on the department website at url http://www. sonoma.edu/engineering/bses/ee_minor_pathway_examples.pdf. The interested students should contact ES Department for advising and developing a plan of study.

## The Professional Science Masters (PSM) Programs, Master of Science in Computer and Engineering Science

## - Bioengineering;

- Communications and Photonics; and


## - Computer Hardware and Software Systems.

The Master of Science degree in Computer and Engineering Science (MS-CES) at Sonoma State University is a multidisciplinary degree built on a strong foundation of Physics, Mathematics, Computer Science and/or Electrical Sciences and recognized as PSM programs by the Council of Graduate Schools. The Professional Science Masters (PSM) degree is a unique professional degree grounded in science and/or mathematics and designed to prepare students for a variety of career options. The degree combines advanced coursework in science and/or math with an appropriate array of professional skill-development activities to produce graduates highly valued by employers and fully prepared to progress toward leadership roles.

The MSCES program emphasizes the application of Physics, Mathematics, Computer Science and/or Electrical Sciences fields to the design, analysis and synthesis of engineering problem solutions, exposes the student to management training and provides practical real world experience through internships and graduate seminars. The MS-CES faculty is composed of professors from Sonoma State University, whose interests traverse the fields of science and engineering, as well as professionals from the local community who have cutting-edge expertise in the various engineering disciplines of interest and are qualified to be adjunct faculty in SSU. A linkage with local industry in the form of an Industry Advisory Board (IAB) is an integral part of the program. Such an advisory board is critical to ensure the Program meets local community needs. The IAB provides the Program with valuable input regarding the new scientific and technological developments and educational needs of the industry. It also facilitates internship opportunities for students, joint student
research/project development and supervision, faculty-scientists/ engineers joint project opportunities, equipment and financial support from the industries. Through this linkage of academic learning and practical application, students obtain a solid education indispensable for working in a professional environment. The MS-CES is a self-supported program that is underwritten by local industry as well as student tuition revenue. Therefore, as of this writing, tuition fee for this Program is $\$ 500$ per unit for all students, resident and non-resident. The MS-CES is $32-35$ unit program, not including any prerequisite work.

## MSCES Program Educational Objectives

- Educate and prepare students to be independent investigators;
- Educate students to be leaders in their professions; and
- Educate students to be socially responsible engineers, committed to community service.


## MSCES Program Outcomes

The students of this program will acquire:

- Knowledge of the theory of high performance computing, communications and/or networking (and bioengineering in case of Bioengineering Track);
- Critical thinking ability and analytical and simulation tools to do system performance evaluation;
- Ability to model and analyze scientific and engineering problems (particularly in biological environment in case of Bioengineering Track);
- Ability to apply theory to design and to implement efficient computing and/or communications systems (ability to apply theory to design and develop solutions for health-related products and techniques in case of Bioengineering Track);
- Ability to integrate knowledge from multiple interrelated disciplines to formulate, design, and/or implement interdisciplinary projects;
- Ability to investigate and formulate research problems and/or design projects independently; and
- Ability for effective written and oral communication skills.


## Admission to the Program

For admission, the applicant must have:

1. A baccalaureate degree in a scientific or technical discipline from an U.S. institution accredited by an appropriate accreditation body, or an equivalent baccalaureate degree from a foreign institution of high reputation;
2. Attained grade point average of at least $3.00(\mathrm{~A}=4.00)$ in the last 60 semester ( 90 quarter) units attempted;
3. Applicants whose native language is not English and who have not spent at least three years of school at the secondary level (or beyond) where English is the principal language of instruction must present a minimum score of 212 on the
computerized Test of English as a Foreign Language (550 on the paper form or 79-80 on Internet version);
4. Demonstrated competency in writing by one of the Written English Proficiency Test criteria for MS-CES students given below. If the applicant plans to use the essay criteria, it should be submitted with the application for admission; and
5. Completed the following SSU courses or equivalent at the undergraduate level with a GPA of 3.00 or higher:

- 3 semesters of Calculus (MATH 161, 211, 241) and one semester of Probability Theory (MATH 345);
- 1 semester of each of the following subjects: Electric Circuits with lab, Electronics with lab and Digital Circuits and Logic Design with lab (ES 220/221, ES 230/231 and ES 210);
- 2 semesters of Programming in an approved high level Procedural Language, modeling and simulation (CS 115 and ES 314); and
- Biology prerequisite (for Bioengineering Track) or ES 310: Microprocessors and System Design (for the other tracks).

Note: Occasionally, the department offers compressed prerequisite courses to enable students to satisfy the prerequisite requirements in an expeditious manner.

## Conditional Admission

The applicants whose GPA is less than 3.00 but greater than 2.50, or who lack not more than 18 units of prerequisite work (generally, 6 courses), may be accepted conditionally and must complete a program of study specified by the graduate coordinator at the time of admission before being given full admission.

## Written English Proficiency Test Requirement

All students are required to demonstrate competency in written English. A student can satisfy the Written English Proficiency Test (WEPT) requirement by meeting any one of the following five criteria:

1. A student who has obtained his/her bachelor's degree from a CSU institution will be deemed to have satisfied WEPT requirement.
2. A student who has obtained a bachelor's degree and a master's degree from an accredited institution(s) with English as the medium of instruction for both the degree programs will be deemed to have satisfied WEPT requirement.
3. A student who scores at least 3.5 in the analytical writing portion of the GRE test will be deemed to have satisfied the WEPT requirement.
4. A student who takes and passes the campus WEPT test.
5. A student who writes and submits an article of at least 500 words in length to demonstrate his/her writing proficiency


#### Abstract

in English, if accepted by the curriculum committee, will be deemed to have satisfied the WEPT requirement.


## Program Requirements

The program requires completion of a total number of thirty-two OR thirty-five semester hours, depending upon the culminating experience path chosen, of work as follows:

- 24 (Plan A and Plan B) to 27 units (Plan C) in technical courses;
- 3 units in a business and management course;
- 3 units in Culminating Experience;
- 1 unit in internship; and
- 1 unit in graduate seminar.

The Culminating Experience requirement can be completed in one of three different ways, referred above as Plan A (thesis), Plan B (design project) and Plan C (Lab and Technical Report Experience).

## Program of Study

The program offers three tracks or areas of specialization:

- Track 1: Bioengineering - This area of specialization prepares students to apply engineering principles in the areas of communications, photonics and computer hardware and software systems to develop solutions for health-related products and techniques that improve the quality of life. This specialization includes topics such as computational techniques for biomolecules, biomedical instrumentation, biophotonics, and medical image processing.
- Track 2: Communications \& Photonics - This area of specialization provides students with expertise in the areas of (i) analog and digital electronics, (ii) semiconductor and photonics components and devices, (iii) communications techniques (wireless, wireline, and optical fiber media), (iv) local and wide area networking, and (v) broadband access technology.
- Track 3: Computer Hardware \& Software Systems - This area of specialization is intended to deepen students' ability to analyze and design computer systems. This specialization includes topics such as embedded systems, digital data compression, software engineering, and computer networks.

A student chooses one of the three tracks at the time of admission but can change it during their course of study. However, that may mean taking additional courses to meet the requirements of the new track. A student's program of study consists of the following four components: a common core, a track core, culminating experience, and technical electives. Details of these components are as follows.

## I. Common Core Curriculum (11 units)

CES 400 Linear Systems Theory
CES 440 Intro. Networking \& Network Management
CES 506 Operations Management ..... 3
CES 591 Internship ..... 1
CES 597 Graduate Seminar ..... 1
II. Discipline-Specific Curriculum Group 1 (9 units from the list of selected discipline)
(a) Computer Hardware and Software Systems program
CES 432 Physics of Semiconductor devices ..... 3
CES 530 Analog and Digital Microelectronics ..... 3
CES 512 Theory of Software Systems ..... 3
CES 514 Data Mining ..... 3
(b) Communications and Photonics program
CES 430 Photonics ..... 3
CES 530 Analog and Digital Microelectronics ..... 3
CES 540 Digital Data Transmission ..... 3
CES 543 Optical Fiber Communications ..... 3
CES 544 Wireless Communications ..... 3
(c) Bioengineering program
CES 561 Computational Techniques for Biomolecules ..... 3
CES 562 Biomedical Instrumentation ..... 3
CES 563 Biophotonics ..... 3
CES 564 Medical Image Processing ..... 3
CES 592B Selected Topics in Bioengineering ..... 3
III. Discipline-Specific Curriculum Group 2 (3 units from the list of selected discipline)
(a) Computer Hardware and Software Systems program
CES 500 Queuing and Transform Theory ..... 3
CES 510 Intelligent Systems Design ..... 3
CES 516 High Performance Computing ..... 3
CES 520 Embedded Systems ..... 3
CES 522 VLSI Design ..... 3
(b) Communications and Photonics program
CES 500 Queuing and Transform Theory ..... 3
CES 542 Digital Signal Processing ..... 3
CES 546 Data Compression ..... 3
CES 547 Digital Switching: Techniques and Arch. ..... 3
CES 552 Network Architecture and Protocols ..... 3
CES 554 Broadband Access Technology ..... 3
(c) Bioengineering program
CES 561 Theory of Software Systems ..... 3
CES 562 Data Mining ..... 3
CES 563 High Performance Computing ..... 3
CES 564 Data Compression ..... 3
IV. Culminating ExperienceThesis (Plan A), Project (Plan B) or Lab and
Technical Report Experience (Plan C)3
V. Approved Technical ElectivesChoose from the following list of courses:
CES 430, CES 432, CES 500, CES 510, CES 512, CES 514, CES 516, CES 520,

CES 522, CES 524, CES 530, CES 532, CES 540, CES 542, CES 543, CES 544, CES 546, CES 547, CES 552, CES 554, CES 561, CES 562, CES 563, CES 564, CES 590, CES 592, CES 592B

## Duration of Program Completion

Courses for these programs are offered in the evening hours to facilitate joining these programs by working professionals. The entire Program requires 32 (Plan A and B) or 35 (Plan C) semester hours to complete. A full time student taking 9 semester hours of average load per semester can complete the 35-unit Program in four semesters and a working professional taking 6 semester hours of average load per semester is likely to complete this program in 6 semesters.

## Student Mentoring Plan

Each student in a program is assigned a faculty advisor who helps the student develop a plan of study based his/her interest. The faculty advisor monitors the student's progress and address any difficulties that the student may be having in making satisfactory progress in the program. At an appropriate time, generally midway through the completion of the coursework, the student is advised to choose a master's project guide, who then takes over as the student's mentor. The mentor helps the student find an Industry mentor who can help the student in his/her master's project and internship placement in an industry. Roles of the two mentors are to guide and prepare the student to succeed in the real world and be a leader in his/her field of work.

## Culminating Experience through Thesis/Design Project/Lab and Technical Report Experience

All students are required to complete a culminating experience which may take one of the following three forms:

- Research and Thesis (Plan A)
- Design Project (Plan B)
- Lab and Technical Report Experience (Plan C)

A supervisory committee is appointed for the students who choose Plan A or Plan B. A supervisory committee consists of three faculty members. One of the three members can be an adjunct faculty. A student interested in choosing Plan A or B chooses a faculty member to be his/her thesis/project supervisor. Subsequently, the faculty supervisor becomes chairman of the student's supervisory committee. In consultation with the faculty supervisor, two other members of the committee are selected. For a student choosing Plan C, an advisor is appointed by the Program Director to guide the student through this plan.

Under Plan A, a student chooses to do thesis research and write a thesis under the guidance of the faculty supervisor and members of the supervisory committee.

Under Plan B, a student chooses to prepare a design project focused on the design of devices, instruments, or systems. As in the case of Plan A, the project is mentored by the student's faculty supervisor and members of the supervisory committee.

Upon approval by the student's supervisory committee, the thesis research or design project may be carried out at the student's company's site (if the student is working) under the supervision of an approved senior scientist/engineer of the company. However, a SSU faculty supervisor must oversee the research/project and regularly examine the student's progress. While not a requirement for graduation, it is expected that the results of the research/project will be presented in an appropriate technical conference and/or published in a relevant professional journal.

Plan C, Lab and Technical Report Experience (LTR Experience), provides students with the opportunity to take more courses to develop a deeper knowledge in their areas of interest instead of carrying out research or design projects, gives extensive exposure of the state-of-the art equipment in various laboratories, and develops technical report writing skills.

## Internship Requirement

As a part of culminating experience, each MS-CES student is required to do an internship in an industry, university, laboratory, utility company, government organization, etc. The objectives of the internship must be to gain hands-on training in dealing with and solving real world engineering problems within the scope of the student's plan of study, develop teamwork and presentation skills and develop an understanding of the differences in ideal and real world situations. The internship must be completed within one semester or semester term. The number of hours worked as an intern should be at least 45 , preferably much more. The supervisory committee's and graduate coordinator's approval must be obtained before starting the internship. After completion of the internship, a report of the work done and achievements certified by the internsupervisor must be submitted to the supervisory committee and department for its acceptance.

Students with industrial experience can petition for a waiver of the internship requirement. However, the petition may be considered by the student's supervisory committee and the graduate coordinator of the MS-CES program only if the student can support the petition with proper supporting evidence that he/she fulfills this requirement based on his/her past industrial experience.

## GPA Requirements

Please refer to this catalog and the department office for various general academic regulations and specific requirements for graduate students such as grade point average requirement, course repeat policy, continuation in the program, etc.

## Laboratories

The program has the following eight state-of-the art laboratories in various areas of interest located in the Cerent Engineering Sciences Complex in Salazar Hall.

- AFC Access Technologies Laboratory
- Agilent Technologies Communications Laboratory
- Rolf Illsley Photonics Laboratory
- William Keck Microanalysis Laboratory
- Networking Laboratory
- Human-Computer Interaction and Systems Laboratory
- Software Engineering Laboratory
- Electronics Laboratory

These labs provide excellent facilities to our students and faculty for hands-on experience, research, project development, implementation, and testing. Many of these labs are sponsored by the high-tech industries in the North Bay region of the San Francisco area.

## ENGLISH

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## ADMINISTRATIVE COORDINATOR

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## Faculty

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Brantley Bryant
Gillian Conoley
Anne Goldman
Kim Hester-Williams
Sherril Jaffe
Catherine Kroll
Mira-Lisa Katz
John Kunat
Noelle Oxenhandler
Thaine Stearns
Greta Vollmer
Timothy Wandling
Chingling Wo

## Programs Offered

Bachelor of Arts in English
Literature concentration
Creative Writing concentration Secondary Teaching Credential Preparation

Master of Arts in English
Minor in English
Minor in Linguistics

English remains one of the most various, comprehensive, and liberalizing of the liberal arts. It familiarizes us with the written documents that define the past and give meaning and purpose to the present; it investigates the sources and structure of language; it enriches our awareness of language in written and oral forms; it stirs the creative and recreative impulses; and it provides us with multiple ways to envision our world and ourselves through the study of fiction, poetry, drama, and the essay.

The English Department is one of the University's largest departments. In addition to its majors, the department serves many other students who take English courses to improve their writing, to
develop a minor or double major field, or to pursue interests in some aspect of literature, language, or creative writing. English is the field most frequently chosen by students combining fields of study in an interdisciplinary major-for example, literature and sociology; literature and history; literature and art; and linguistics and psychology.

Students who wish to major in English may choose one of three plans, each of which provides a coherent program with a particular emphasis. After a core of required courses, students will follow programs leading to a major in English and American literature, creative writing, or secondary teaching, which prepares students to enter postbaccalaureate teacher credentialing programs.

Students who have majored in English work in business, public relations and advertising, broadcasting, journalism, law and government service, as well as in elementary, secondary, and college teaching. All of these fields require an understanding of human motivation and of the conflicts and dilemmas that people face. Our graduates enter those fields able to express themselves clearly, logically, and with passion. They understand the relationship between language and authority.
The English Department also serves students in the applied arts minor, which may be of special interest to those seeking the Multiple Subject (elementary level) Teaching Credential and the University's pre-law and pre-health professions programs.

The English Department publishes the following professional and student publications: Zaum; and Volt, A Magazine of the Arts. Students wishing to participate in the production of these publications should contact the English Department office.

To be admitted to the English major, students must receive a grade of at least B- in ENGL 101 and 214 or their equivalents. A student with a grade lower than B- in either ENGL 101 or 214 may petition for a review by the department. The review will be based on the contents of an appeal folder, containing three essays from the class being reviewed, and a one-to-two-paragraph explanation of the basis of appeal.

## Bachelor of Arts in English

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements, core (20 units) |  |
| and concentration (20 units) | 40 |
| General electives | 29 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Major Core Requirements for All English Majors

(Except secondary teaching concentration students; please see Secondary Teaching Preparation, below.)

An Introductory Course
Complete the following course:
ENGL 301 Literary Analysis: Seminar

## A Survey Course

Complete one of the following courses:

## A Shakespeare Course

Complete one of the following courses:
ENGL 339 Introduction to Shakespeare
ENGL 439 Studies in Shakespeare

## A Theory Course

Complete one of the following courses:
ENGL 401 Introduction to Modern Critical Theory
ENGL 487 Studies in Rhetoric

## A Senior Level Literature Course

Complete one of the following courses:
ENGL 436 Studies in Postcolonial Literature
ENGL 439 Studies in Shakespeare
ENGL 447 Studies in Comparative Literature
ENGL 448 Periods in British Literature
ENGL 450 Periods in American Literature
ENGL 451 Feminist Perspectives in Literature
ENGL 470 Studies in Poetry
ENGL 472 Studies in the Novel
ENGL 474 Studies in Drama
ENGL 480 Studies in California Literature
ENGL 481 Studies in British Literature
ENGL 482 Studies in American Literature
ENGL 483 Individual Authors: American
ENGL 484 Individual Authors: British

## ENGL 485 California Authors

Note: English majors must choose one of three concentrations: literature, creative writing, or secondary teaching.

## Literature Concentration

Three General Literature Courses:
Two of these courses ( 8 units) must be at the 400 level, and must be in literatures before 1914.
Electives
Total units in the Literature concentration

## Creative Writing Concentration

Four Or More Courses In Creative Writing:
At least three of these courses ( 12 units) must be at the 300/400 levels, and course selections must include two different writing genres (poetry, fiction, scriptwriting, or creative nonfiction).
ENGL 207 Introduction to Creative Writing
ENGL 307 Introduction to Fiction Writing
ENGL 318 Introduction to Poetry Writing
ENGL 352 Personal Essay
4
4

ENGL 407 Advanced Fiction Writing

ENGL 409 Master Class in Fiction Writing 4
ENGL 418 Advanced Poetry Writing 4
ENGL 430 Creative Writing: Selected Genres 1-4
ENGL 435 Directed Writing 4-8
ENGL 475 Master Class in Nonfiction 4
Electives 4
Total units in the Creative Writing concentration 20

## English Education Concentration (Secondary Teaching

Preparation)*

## Collateral Requirements: 9 Units

Complete the following courses: 9 Units
ENGL 201 Written and Oral Discourse 3
ENGL 214 World Literature 3
COMS 202 Methods of Media Criticism 3
Field Work in Education 45 hours
Core Requirements: 44 Units
Complete the Following Courses: 32 Units
ENGL 301 Literary Analysis: Seminar 4
ENGL 313 Classical Literature and Mythology 4
ENGL 341 Explorations in Language 4
ENGL 343 Youth and Literature 4
ENGL 379 Pedagogical Grammar 4
ENGL 491 Teaching Composition 4
ENGL 492 Reading and Responding to Literature 4
ENGL 496 English Education Senior Capstone 4
Complete one of the following courses: 4 units
ENGL 237 Survey: Early American Literature 4
ENGL 238 Survey: Later American Literature 4
Complete one of the following courses: 4 units
ENGL 239 Survey: Early English Literature 4
ENGL 240 Survey: Later English Literature 4
Complete one of the following courses: 4 units
ENGL 339 Introduction to Shakespeare 4
ENGL 439 Studies in Shakespeare 4
For the extended studies portion of the single-subject credential concentration, students will choose either Strand 1 or Strand 2:
Strand 1
Extended Studies: Literature and Text Analysis: 8 Units Complete two of the following courses:
ENGL 315 California Ethnic Literature 3
ENGL 315L California Ethnic Literature Lab 1
ENGL 345 Women Writers 3
ENGL 448 Periods in British Literature 4
ENGL 450 Periods in American Literature 4
ENGL 481 Seminar in British Literature 4
ENGL 482 Seminar in American Literature 4
ENGL 483 Individual Authors: American 4
OR an elective to be determined with and approved by an advisor

Strand 2
Extended Studies: Composition, Rhetoric and Linguistics: 8 Units
Complete two of the following courses:

ENGL 307, or 318, or 352 Creative Writing Course
ENGL 375 Advanced Composition
ENGL 487 Studies in Rhetoric
ENGL 489 Topics in Linguistics
ENGL 495 Tutor in Writing Center
ANTH 480 Studies in Language Use
OR an elective to be determined with and approved by an advisor
Total units in the English Education (Secondary Teaching Preparation) concentration
*All single subject concentration courses must be passed with a grade of $C$ or better in order to qualify as meeting the waiver requirements. In addition, students must achieve a minimum GPA of 3.00 (in single subject program courses) to qualify for waiver approval.

## Teaching Credential Preparation

The English Education concentration is a program of study that satisfies the subject matter preparation requirement for entry into an English teaching credential program and exempts the student from taking the CSET (California Subject Examination for Teachers) in English. English majors interested in seeking a general elementary credential may demonstrate subject matter competence by passing the CSET Multiple Subjects Assessment. For more information, contact the English Department Office at (707) 664-2140.

Sample Four-Year Program for Bachelor of Arts in English

## Literature Concentration

FRESHMAN YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| GE Area A2: ENGL 101 (3) | GE Area A3: PHIL 101 (3) |
| GE (3) | GE Area B1 (3) |
| GE Area B2: BIOL 115 (3) | GE Area D2 (3) |
| Electives (6) | GE Area C2: ENGL $214(3)$ |
|  | Electives (3) |
| SOPHOMORE YEAR:: 30 Units |  |

Spring Semester (15 Units)
Fall Semester (15 Units)
GE Area C1 (3)
GE Area A1: ENGL 201 (3)
ENGL 238 or 240 (4)
ENGL 237 or 239 (4)
GE Area D3 (3)
Electives (5) Electives (5)

JUNIOR YEAR:: 30 Units
Fall Semester (15 Units)
Spring Semester (15 Units)
GE Area C3 UD (3) ENGL 339 (4)
ENGL 301 (4)
GE Area C4 UD (3)
UD Major Literature Course (4)
Electives (4)
Major Elective (4)
GE Area D1 (3)
Electives (1)

SENIOR YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| ENGL 401 (4) | 400 Level Major Lit. Course (4) |
| 400 Level Major Literature Course (4) | 400 Level Major Lit. Course (4) |
| GE Area E UD (3) | GE Area D5 (3) |
| Electives (4) | Electives (4) |

TOTAL UNITS:: 120

## Advising Clarifications

1. Six units of English Community Involvement Programs may be included among the electives with permission of advisor.
2. Additional courses in upper-division writing (which may be repeated for credit) or additional literature courses may be taken as electives.
3. No course should be listed above if it has already been used for GE requirements. (ENGL 214, 215, 314, 315, 345 are exceptions.)
Only one course may be double counted for both English and GE area C2. No courses from other GE areas or from other universities may double count. However, if a course is counted toward area C2 by an Admissions and Records evaluator, it
may still count toward the major if the student elects to take an additional English Department area C2 course in its stead.
4. At least 24 units of the courses listed above must be upper-division.
5. The 40 units listed above will be used in computing the major GPA in accordance with University policy; no courses taken $\mathrm{Cr} / \mathrm{NC}$ may be counted toward the major unless they are offered with that option only.
6. Additional units in English, beyond the 40 units listed above, will be counted as general college electives and should not be listed on the Major/Minor Requirements form.

In accordance with University policy, courses in Independent Study $(495,595)$ shall not duplicate regularly offered courses listed in our catalog.

## Minor in English

Students majoring in other fields may develop, in consultation with an English Department advisor, a 20-unit English minor.

Required: Literary Analysis (ENGL 301), a survey course (to be selected from ENGL 237, 238, 239, 240, or equivalent), and an upper-division writing course (to be selected from ENGL 307, 318, $352,375,475$, or other at the recommendation of your advisor). A minimum of one course must be taken at the 400 level. All courses must be taken for a grade to count toward the minor. Nine units must be taken in residence at SSU.

## Minor in Linguistics

Students majoring in English or other fields may develop, in consultation with one of the linguistics program advisors, a 20-unit linguistics minor.

Required: one introductory linguistics course (to be selected from ENGL 203, ENGL 341, or SPAN 304), and one methodological course (to be selected from ENGL 489, ENGL 588, ANTH 480, SPAN 400, or SPAN 490). All courses must be taken for a grade to count toward the minor. Nine units must be taken in residence at SSU.

## Master of Arts in English

The graduate program in English at Sonoma State University consists of 34 units of graded work. Literature and creative writing are emphases within the degree available to the student.

## Admission to the Program

The English Department M.A. program accepts applicants only for the fall semester of each year and requires at least a 3.00 GPA in the last 60 academic units taken. Program applicants must file the University application form and have all their academic transcripts sent to the University Admissions and Records Office by the admission deadline set by the department for that year, typically December 31. Applicants must also send to the English Department, care
of the graduate advisor, the following: a second set of transcripts (the first goes to Admissions and Records); three letters of recommendation; a brief cover letter indicating the applicant's interest in the program and anticipated field of study (creative writing, literary criticism, or rhetoric/composition); a sample of persuasive prose of between 10 and 20 pages in length; and, for those applying in creative writing, a sample of creative work. These policies and procedures are described in the "MA in English Handbook," which is available online at http://www.sonoma.edu/english/ma.html.

The English Department Graduate Committee reviews all complete application files that meet campus and departmental admission standards and admits the most qualified of these applicants to the program. Applicants may enter the program with conditional or classified status. Classified status is usually granted to admitted applicants with undergraduate majors in English; conditionally classified status, which requires the completion of 4 to 24 additional units in English, is usually granted to admitted applicants with an undergraduate major in another field. Please see the catalog section on Graduate Degrees for more information.

## Advancement to Candidacy

Students are advanced to candidacy when they have 1) completed their coursework (except for completion units), 2) passed either the department's qualifying oral exam or the Literature GRE (minimum score at the $65^{\text {th }}$ percentile), and 3 ) completed the second-language requirement. Advancement to candidacy is formalized by the filing of a GS01 form with Graduate Studies.

## Program Requirements

The M.A. in English requires 34 units. Students who select the thesis or creative project as a culminating option complete 28 of these units through coursework; the remaining 6 will be taken either as thesis units (599) or as directed writing units (535). Students who select the exam as their culminating option complete 32 units of coursework plus an additional 3 units of English 597 (directed reading) during their final semester for a total of 35 units. No more than 4 units of directed writing units (535) may be counted toward the degree prior to the culminating option.

In addition to the 494 reading course recommended for all graduate students studying for the qualifying exam prior to advancement to candidacy, students may take one course at the 400 level (senior seminar level) toward completion of their M.A. Research assistantship units (460) and the 494 course do not count toward the 34-unit total; nor, except at the discretion of the graduate advisor, do independent study units (595).

## Degree Options

All options require candidates to take English 500 and two 500-level seminars. One course may be taken at the 400 level for degree credit.

To fulfill the requirements for the degree, the student must select one of the three following options:

1. Thesis Option: 28 units of coursework, plus 6 units of ENGL 599 for researching and writing a thesis;
2. Creative Writing Option: 28 units of coursework, plus 6 units of directed writing, ENGL 535, for writing a creative project prefaced with a critical introduction; or
3. Directed Reading Option: 32 units of coursework, plus preparation of a specialized reading area ( 3 units of ENGL 597 required) and passage, with a B- or better, of a written exam in this area. Note that this option requires 32 units of graded course work plus three units of ENGL 597, which is graded $\mathrm{Cr} / \mathrm{NC}$.

Students choosing the thesis or directed reading option are required to take an oral examination. Those choosing the directed writing option are required to give a public presentation of their work.

## English Courses

A list of courses offered with descriptions appear in the separate course-listing section of this catalog. Please see the Schedule of Classes for most current information and faculty assignments.
A. ENGL 101 and 214 or their equivalents are prerequisites for upper-division courses.
B. These classes (or their equivalents), and ENGL 301, are prerequisites for English 400-level and 500 -level courses; or by consent of instructor.
C. Prerequisites apply to both major and minor.

# ENVIRONMENTAL STUDIES AND PLANNING 

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Thomas Jacobson

## ADMINISTRATIVE COORDINATOR

Jo-Ann Smith

## Faculty

Caroline Christian / Conservation and Restoration
Thomas Jacobson / Planning
Steven Orlick / Planning
Rocky Rohwedder / Education and the Environment, Outdoor Leadership
Alexandra von Meier / Energy Management and Design
Laura Watt / Conservation and Restoration

## Programs Offered

Bachelor of Arts in Environmental Studies Education and the Environment

Energy Management and Design
Conservation and Restoration
Outdoor Leadership
Planning Concentration
Water Quality and Hazardous Materials Management Concentration
Bachelor of Science in Environmental Studies Energy Management and Design
Water Quality and Hazardous Materials Management Concentration

Minor in Environmental Studies and Planning
Elementary Teacher Credential Multiple Subject Preparation in Environmental Studies
Double Major with Economics
Dedicated to producing environmental problem solvers, the Department of Environmental Studies and Planning (ENSP) offers a distinctive program of interdisciplinary study. Students and faculty work together to develop an understanding of environmental "sustainability" in all its dimensions. The program addresses current environmental concerns that have far-reaching implications for human society, natural systems, and the fate of diverse species of plants and animals. This involves an integration of knowledge from a variety of disciplines to understand the functioning of ecological systems and the nature of human impact upon these systems at local, regional, and global scales. The department's two goals are to: prepare students for careers in the environ-
mental professions, for graduate studies, and for positive action in their own lives; and to promote environmental literacy in order to help maintain and enhance the quality of the human and natural environments.

All students receive fundamental instruction related to the environment based on knowledge from the biological, physical, and social sciences and from the humanities. This broad understanding is applied in a particular area of environmental concern through a student's selecting one of the ENSP study plans. Career-oriented study plans are offered in conservation and restoration, energy management and design, education and the environment, outdoor leadership, city and regional planning, and water quality and hazardous materials. These study plans are described below. Many students pursue double majors, or a major and minor, in conjunction with traditional disciplines to prepare for specific careers related to the environment.

All students complete a senior project or internship.

## Supporting Programs

In addition to the programs above, our department is the academic sponsor of three professional certificate programs offered by the School of Extended Education.

Green Building Professional Certificate<br>Sustainable Landscape Professional Certificate<br>Sustainable Development and Climate Change Certificate

## Admission Requirements


#### Abstract

When applying to Sonoma State University, a student may declare a major in Environmental Studies and Planning. A student considering this major should make an appointment to see a faculty member for academic advising. (Students seeking financial aid to assist them in their studies should contact the financial aid office. Several scholarships are provided specifically for ENSP students through the University scholarship program; please refer to the Scholarships section of this catalog.)


## Advisory Plans for the Freshman and Sophomore Years

In fulfilling their general education requirements, students who intend to major in Environmental Studies and Planning should select courses that will also meet the prerequisites for their intended study plans. Required and recommended prerequisites may be obtained by contacting the department office.
A broad-based program of lower-division work in the liberal arts and sciences is generally sufficient to meet the requirements for the B.A. degree. This program should include at least one course in biology; one in geology, chemistry, or physics; one in philosophy; and two or more in the social sciences, including a course in
introductory economics (either microeconomics or macroeconomics is recommended). Additional coursework is required for certain study plans.

## Required Courses

All ENSP majors are required to complete:
ENSP 200* Global Environmental Issues (3)
ENSP 201 Environmental Forum (1)
In addition, in consultation with an advisor, students must complete one of the six study plans described below. Details of each study plan, including specific courses and options, are available from the office of the Department of Environmental Studies and Planning.
At least 24 units of ENSP course work are required for the B.A. and B.S. degrees.

Courses required for the major must be taken for a traditional letter grade, except for courses that are offered Cr/NC only.

## Bachelor of Arts in Environmental Studies

| Degree Requirements | Units |
| :--- | ---: |
| General education | 48 or 51 |
| Major requirements | $36-53$ |
| General electives | $16-36$ |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Bachelor of Science in Environmental Studies

A bachelor of science degree is available for students in the Energy Management and Design, and Water Quality and Hazardous Materials plans.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 48 or 51 |
| Natural science support courses | $32-34$ |
| Major requirements | $22-35$ |
| General electives | $10-18$ |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

The following natural science support courses are required for the B.S. degree, in addition to the specific requirements for Energy Management and Design, and Water Quality and Hazardous Materials Management.
$\begin{array}{lr}\text { CS } 101 \text { Introduction to Computers and Computing } & 3 \\ \text { CHEM } 115 A^{\star} \text { General Chemistry } & 5 \\ \text { CHEM } 115 B^{\star} \text { General Chemistry } & 5 \\ \text { ENSP } 403 \text { Computer Modeling } & 3 \\ \text { MATH 161* Calculus I } & 4 \\ \text { MATH 211S Calculus II } & 2 \\ \text { MATH 165 Elementary Statistics } & 4 \\ \text { PHYS 210A* General Physics (Algebra/Trig } & 3-4 \\ \text { or Calculus-based) } & 3-4\end{array}$
Total units natural science support courses
32-34

## Study Plans

In consultation with an advisor, students must complete 26-56 upper-division units in one of the six study plans outlined below. Details of each plan, including specific courses and options, are available from the office of the Department of Environmental Studies and Planning.

## Education and the Environment

## (B.A. degree option)

This study plan is designed for students interested in working with youth or a teaching career in public or private school settings. Coursework is designed to help students pass the California Subject Matter Examination for Teachers (CSET) as well as equip them with environmental science literacy, effective educational techniques, and extensive field experience. After completion of this B.A. degree track, many students go on for a multiple subject teaching credential.

## Energy Management and Design

(B.A. and B.S. degree options)

This program is designed to prepare students for careers or for graduate studies in the fields of residential and commercial energy management, energy-efficient architecture and design, energy planning in industry and government, renewable energy applications, and other energy-related businesses.

## Conservation and Restoration

## (B.A. degree option)

Track 1, Biological Emphasis, is for students interested in sciencebased conservation, restoration, conservation planning, land management, and preservation. Students participate in an interdisciplinary curriculum that combines course work in ecology and biology with environmental policy, law, and/or planning. A minor in biology is strongly encouraged. Track 2, Social Science Emphasis, is for students interested in the human dimensions of conservation and restoration. Coursework focuses on the political, historical, and/ or geographic aspects of land and resource conservation, planning, and management, while also covering a solid interdisciplinary foundation of ecological understanding. A minor is geography is strongly encouraged.

## Outdoor Leadership

## (B.A. degree option)

This study plan combines relevant coursework in environmental science, kinesiology, leadership and small business management along with field experience to prepare the next generation of outdoor leaders. Career opportunities include the growing outdoor recreational field, eco and adventure tourism, and adventure and multi-sports programs at schools and universities, as well as activities for youth-at-risk and other special needs populations.

[^1]
## Planning Concentration (City and Regional Planning)

## (B.A. degree option)

Students in the CSU-approved planning concentration follow a general preprofessional curriculum in planning and may choose to develop a specialization to suit their interests through a program of recommended electives. Focus is on sustainable community planning, including land use, growth management, environmental impact assessment, transportation, and natural resource planning. Graduates may work for a wide variety of governmental agencies or private firms, or may pursue graduate studies in planning or related fields. Also, students interested in future careers in environmental law typically follow the planning concentration.

## Water Quality and Hazardous Materials Management Concentration

## (B.A. and B.S. degree options)

This CSU-approved concentration prepares students for employment in environmental enforcement agencies, large private corporations, engineering firms which serve the public and private sectors, and public agencies that provide water or treat wastewater. Some of these agencies and firms are very small and rural; others are large and urban. The course work provides a comprehensive foundation in the science of environmental quality. Our program welcomes students who are new to this field, provides upper-division course work for students who have had previous training in community college hazardous materials and water technology programs, and also gives additional training to workers already employed in water-related occupations.

## Double Major with Economics

The double major in economics and environmental studies and planning is intended for those students whose particular academic and career interests lie in natural resource economics, economic development planning, energy management, and/or community development and redevelopment. The double major is also designed especially for students who intend to pursue graduate studies in natural resource management, urban planning, law, or related career fields.
Students considering this double major should meet with their ENSP advisor to discuss requirements.

## Minor in Environmental Studies and Planning

The purpose of the minor in environmental studies and planning is to help students from traditional disciplines apply their expertise to environmental and planning problems and issues. A minimum of 20 units is required. Students considering the ENSP minor should meet with an ENSP advisor to discuss requirements.

## Special Resources in ENSP

The department utilizes several valuable learning environments and facilities on and off campus. They include:
The Fairfield Osborn Preserve: A 220-acre field station that provides environmental education programs and opportunities for scientific research. The preserve is a fifteen-minute drive from campus, atop Sonoma Mountain.
The SSU Botanical and Kenneth M. Stocking Native Plant
Garden: A showcase of diverse California plant communities and a quiet place for education and relaxation. Located near the campus lakes, the garden includes a guided trail through woodland, marsh, and riparian ecosystems.
The Environmental Technology Center: A model for sustainable building techniques and technologies, this center includes energy and water-efficient landscaping, "smart building" control technologies, environmentally-sensitive materials, passive solar heating and cooling, and more. It serves as a training facility for building professionals and teachers and as an educational and research site.

The Institute for Community Planning Assistance/Center for Sustainable Communities: A research arm for the department, the institute carries out contract studies for local communities and public agencies, utilizing paid student assistants.
Galbreath Wildlands Preserve: A 3,670 acre preserve nestled in the Coast Range of northern California. The mission of the Preserve is to promote environmental education and research, as well as the effective stewardship of this diverse landscape.

## FILM STUDIES

## PROGRAM OFFICE

Art Building 128
(707) 664-2364

## Faculty

Stephen Galloway / Art and Art History
Ajay Gehlawat / Hutchins
Michael G. Litle / Communication Studies

## Programs Offered

## Minor in Film Studies

Major in Film: See Art History: Film Emphasis
The film studies minor is an interdisciplinary and interdepartmental program that analyzes the history, theory, and practice of film in the larger context of humanistic studies. Students will study a broad range of film texts, from the classic narrative to abstractionist and experimental, and learn to appreciate the aesthetics and filmmaking practices of both Western and non-Western cultures. While exploring the medium's connection with several disciplines and art forms, students will also become familiar with the phases of film production and learn to approach film and the cinema in a critical and analytic manner. The film studies minor offers students a flexible curriculum that complements several existing major degree programs in the humanities and constitutes excellent supplementary preparation for a number of careers. In consultation with the program coordinator, students can design a minor with an emphasis relevant to their academic and career objectives.

## Minor in Film Studies

The minor consists of a minimum of 18 semester units distributed among a core ( 9 units) and a choice of electives ( 9 or more units).

## Minor Core Requirements

ARTH 212A or B Introduction to World Film History
ARTH 361 Classic Narrative Film
3
ARTH 363 Other Cinemas
Total units in the minor core

## Minor Electives

Students may complete the film studies minor by choosing additional courses in film history or three courses within any one of the following four options. Because of rare or one-time offerings in film studies throughout the University, this list of electives is not comprehensive. In light of this and the variations of scheduling throughout the disciplines, students are advised to work closely with one of the faculty advisors listed above in order to insure progress in the minor.

## Film and Literature Option

These courses study different aspects of the complex relationship between film and literature: the role of screenwriting in the process of film production, the problems of adaptation, the comparative study of literary and filmic texts, and the special contribution that literary analysis has made to the study of film.

## ENGL 377 Film and Literature <br> FREN 415 Special Topics in French Culture 4 <br> Total units in the option <br> Critical Perspectives Option <br> Each of the following courses brings a specific disciplinary approach to bear on the study of film, drawing on perspectives from the humanities and social sciences: aesthetics, ethics, structuralism, semiology, politics, and sociological analysis.

COMS 202 Methods of Media Criticism 3
COMS 402 Senior Seminar 3
PHIL 368 Philosophy and Film 3
SOCI 434 Cinema and Society 4
Total units in the option
9-13

## Film and the Fine Arts Option

This group of courses focuses on the relationship of film with artistic and theatrical traditions and practices: film analysis and theories of visual aesthetics; film and artistic movements in the 20th Century (such as expressionism, futurism, and surrealism); film and the media arts; film and the theatrical arts of production design, acting, and directing.

ART 208 Basic Black and White Photography 1-4
ARTH 464 History of Modern Art: 20th Century 3-4
ARTH 465 History of Modern Art: American 3-4
COMS 201 Storytelling via Video 3
THAR 120 Acting Fundamentals 2
THAR 144A Scenery 2
or THAR 144B Lighting 2
THAR 350 Directing Workshop 2

## International and Cross-Cultural Perspectives Option

These courses develop an understanding of aesthetics and filmmaking practices that stand outside the dominant model of the classic narrative film and the representation of the cultural "other" within the dominant Western tradition.

AMCS 392 Ethnic Images in Film and Media 3
CALS 393 Chicano/Latino Cinema 3
FREN 415 Special Topics in French Culture 3
NAMS 338 Native Americans and the Cinema 3
Total units in the option $9-12$
Total units in the minor 18-21
Note: No more than 6 units of work in the student's major may be counted toward the film studies minor. Students are encouraged to take at least one elective course with a regional or intercultural perspective.

## GEOGRAPHY

DEPARTMENT OFFICE<br>Stevenson Hall 3066<br>(707) 664-2194<br>Fax (707) 664-3332<br>www.sonoma.edu/geography<br>DEPARTMENT CHAIR<br>Rheyna Laney<br>\section*{Faculty}<br>Jeffrey Baldwin<br>Matthew Clark<br>Rheyna Laney

## Programs Offered

Bachelor of Arts in Geography
Environment and Society Concentration Geospatial Techniques Concentration Biophysical Environment Concentration Globalization and Identity Concentration

Minor in Geography
Teaching Credential Preparation
Geography is the academic discipline that bridges the natural and social sciences. Geographers study and analyze the relationships between human activities and the natural and built environment. They take a multidisciplinary approach to solving real-world problems at all spatial scales, from local to global. Thus, Geography provides students with the conceptual frameworks needed to understand the complex processes shaping the world around us. It also provides students with the skills needed to help create a more sustainable and just future.

Geography at Sonoma State University has developed four concentrations, reflecting four major fields of study within the broader discipline. These study plans provide an opportunity for students to strengthen their backgrounds and to develop an expertise in these particular areas.
The Environment and Society Concentration focuses on humanenvironment relations, sustainable development, and natural resource management.

The Globalization and Identity Concentration focuses on global economic and political change, how this affects people's access to wealth and power, and how it shapes their sense of self in an everchanging world.

The Biophysical Environment Concentration focuses on natural environment systems from global to local scales, including weather and climate change, landform history, and biological patterns and processes.

The Geospatial Techniques Concentration focuses on geographic information science and its application in resource management,
land-use planning, and land-change science.
All Geography Majors, no matter their concentration, take a range of core courses that ensure that they have a strong background in both the natural and social sciences. They also take geospatial techniques and field methods courses that develop their research and problem-solving skills. In addition, the curriculum strengthens students' writing, critical thinking, and oral presentation skills; areas that are important for any successful career. The department's strong intern program affords students on-the-job experience.

Geography majors may apply for the Terrence M. Smith Geography Scholarship, the Geography Alumni Scholarship, or the Claude Minard Memorial Scholarship. Students pursuing studies in climatology or meteorology are eligible to compete for the annual Call Memorial Scholarships.

## Careers in Geography

Sonoma State University graduates in geography find employment opportunities in both the public and private sectors. Private sector employers include consulting companies in fields such as agriculture, viticulture, environmental management, land use mapping, land change analysis, and marketing. Non-profits that regularly hire geographers range from international organizations, such as the Nature Conservancy or the International Crisis Group, to small local organizations such as the Sonoma Ecology Center. Government employers include the Environmental Protection Agency, U.S. Forest Service, State Department, Department of Homeland Security, CalTrans, California Division of Forestry, as well as various city and county departments in areas such as parks and recreation, open space, water, urban planning, and others.

Geographers work for these organizations in various capacities, including as geographic information technicians and analysts, remote sensing analysts, planners, location analysts, park rangers, resource managers, and consultants.

Many SSU geographers decide to go into teaching, from the elementary level to higher education. Please visit the department website for more information and career ideas.

SSU graduates in geography often decide to continue on to graduate school, entering various programs across the country. Fields of study include geography, international development, rural development, urban planning, transportation planning, journalism, law, and a host of others.

## Geography Department Resources

## Geospatial Technology Instructional Laboratory

The Geography Department has a well-equipped computer laboratory that supports advanced instruction in geographic information systems (GIS), satellite image processing, and digital cartography.

The GIS Lab includes 15 workstations supported by a file server, as well as ArcGIS Arc/Info, ERDAS Imagine, IDRISI, Adobe Illustrator, geobrowsers, digitizing tablets, and a color plotter and printer.

## The Center for Interdisciplinary Geospatial Analysis (CIGA)

The Center for Interdisciplinary Geospatial Analysis promotes the application of geospatial technology to social and environmental problems through research, education, and community service. The lab seeks interdisciplinary collaboration among campus and external researchers, students, and other organizations in projects that involve geographic information and spatial analysis at local to global scales. The CIGA provides computer, software and data resources, Geographic Information System (GIS) and remote sensing expertise, consulting services, educational courses, and community outreach. Students are given a unique opportunity to broaden and refine their education by working on real-world problems in CIGA research projects and service contracts.

## Map Library

The Map Library houses an extensive collection of digital and paper maps, wall maps, aerial photographs, remotely sensed imagery, and one of the most complete historical weather libraries in California.

## Biophysical Geography Laboratory

The department's biophysical laboratory is equipped with various types of equipment and technology to support both instruction and research. It maintains a collection of high-precision GPS mobile receivers. It houses a complete weather station that provides students with current weather data to complement historical resources. The lab also possesses a fully equipped soils and geomorphology lab for research and analysis.

## Bachelor of Arts in Geography

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Geography Courses | 42 |
| Supporting Courses | 8 |
| General Electives | 10 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

Note: Courses required for the major must be taken for a traditional letter grade, except for courses that are offered CR/NC only. Students must earn a $C$ - or better in any course applied to the major.

## Core Requirements for the Major (16 units)

Lower Division Core
GEOG 203 Cultural Geography or GEOG 202: World Regional Geography
GEOG 204 Global Environmental Systems
GEOG 205 Map Reading and Interpretation
Regional SynthesisGEOG 392 Latin America and the Caribbean4GEOG 394 Africa, South of the Sahara4
GEOG 396 Special Topics in Area Studies ..... 4

Geographic Research and Synthesis
GEOG 490 Senior Seminar

## Environment and Society Concentration

This concentration is designed for students interested in humanenvironment relations, sustainable development, and natural resource management

## Breadth Courses (10 Units)

Geospatial Techniques 4
GEOG 380 Remote Sensing and Image Processing 4
GEOG 385 Cartographic Visualization 3-4
GEOG 387 Introduction to GIS 4

## The Biophysical Environment 4

GEOG 360 Geomorphology 4
GEOG 370 Weather and Climate 4
Field Course and Internship 2
GEOG 314AB Field Experience, Northern California 1-2
GEOG 314C Field Experience Beyond Northern California 1-2
GEOG 314D Field Experience Abroad 2-3
GEOG 315 Field Methods in Geography 2
GEOG 499 Internship 2-5

## Concentration Courses (16 Units)

GEOG 322 Liberation Ecologies: Globalization, Environment, and Social
$\quad$ Movements
GEOG 335 Global Food Systems: Scarcity and Sustainability 4
GEOG 340 Conservation of Natural Resources 4
GEOG 345 Tourism Geographies 4
GEOG 365 Biogeography and Landscape Ecology 4
GEOG 372 Global Climate Change: Past, Present, Future 4
GEOG 375 Natural Hazards 4

## Supporting Courses (8 Units)

Suggested courses, with substitutions possible in consultation with an advisor.
ANTH 345 Anthropology and the Environment 4
ANTH 354 Quest for the Other: Tourism and Culture 4
ECON 381 Natural Resources and Environmental Economics 4
ENSP 307 Environmental History 4
ENSP 310 Introduction to Planning 3
ENSP 330 Energy, Technology, and Society 4
ENSP 404 Environmental Law 3
ENSP 416 Environmental Planning 3

## Globalization and Identity Concentration

This concentration is designed for students interested in focusing on global economic and political change, how this affects people's access to wealth and power, and how it shapes their sense of self in an ever-changing world.

## Breadth Courses (10 Units)

## Geospatial Techniques

GEOG 380 Remote Sensing and Image Processing
GEOG 385 Cartographic Visualization
GEOG 387 Introduction to GIS
The Biophysical Environment
GEOG 360 Geomorphology
GEOG 365 Biogeography and Landscape Ecology
GEOG 370 Weather and Climate
GEOG 372 Global Climate Change: Past, Present, Future
GEOG 375 Natural Hazards
Field Course and Internship
GEOG 314AB Field Experience, Northern California
GEOG 314C Field Experience Beyond Northern California
GEOG 314D Field Experience Abroad
GEOG 315 Field Methods in Geography 2
GEOG 499 Internship

## Concentration Courses (15-16 Units)

GEOG 302 World Regions in Global Context
GEOG 320 Geopolitics
GEOG 322 Liberation Ecologies: Globalization, Environment, and Social Movements
GEOG 335 Global Food Systems: Scarcity and Sustainability
GEOG 338 Social Geography
GEOG 345 Tourism Geographies
GEOG 350 Urban Geography

## Supporting Courses (8 Units)

Suggested courses, with substitutions possible in consultation with an advisor
ANTH 352 Global Issues
ANTH 354 Quest for the Other: Tourism and Culture
ECON 303 International Economics
ECON 403 Seminar in Economic Development
POLS 303 Intro to Comparative Government and Global Systems
POLS 304 Introduction to International Relations
POLS 452 Third World Political Systems
WGS 385 Gender and Globalization

## Biophysical Environment Concentration

This concentration is designed for students interested in focusing on the natural environment, including weather and climate change, landform processes, and biophysical patterns and processes.

## Breadth Courses (12 Units)

## Geospatial Techniques

GEOG 380 Remote Sensing and Image Processing
GEOG 385 Cartographic Visualization
GEOG 387 Introduction to GIS

## Human Geography

GEOG 320 Geopolitics
GEOG 322 Liberation Ecologies: Globalization, Environment, and Social Movements ..... 4
GEOG 335 Global Food Systems: Scarcity and Sustainability ..... 4
GEOG 340 Conservation of Natural Resources ..... 4
GEOG 345 Tourism Geographies
GEOG 350 Urban Geography ..... 4
Field Course and Internship ..... 4
GEOG 314AB Field Experience, Northern California ..... 1-2
GEOG 314C Field Experience Beyond Northern California ..... 2
GEOG 314D Field Experience Abroad ..... 2-3
GEOG 499 Internship ..... 2-5
Concentration Courses (14 Units)
GEOG 315 Field Methods in Geography ..... 2
GEOG 360 Geomorphology ..... 4
GEOG 365 Biogeography and Landscape Ecology ..... 4
GEOG 370 Weather and Climate ..... 4
GEOG 372 Global Climate Change ..... 4
GEOG 375 Natural Hazards ..... 4
Supporting Courses (8 Units)
Suggested courses, with substitutions possible in consultation withan advisor
ENSP 309 Soil Science ..... 3-4
ENSP 322 Conservation Biology ..... 3-4
ENSP 427 Conservation Design ..... 3
BIOL 300 Ecology ..... 4
BIOL 330 Plant Taxonomy ..... 4
BIOL 485 Biometry ..... 4
GEOL 303 Advanced Principals of Geoology ..... 3
GEOL 304 Geological Mapping and Report Writing ..... 1
GEOL 323 Hydrology ..... 3
MATH 165 Elementary Statistics ..... 4

## Geospatial Techniques Concentration

This concentration is designed for students interested in geographic information science and its application in resource management, land-use planning, and land-change science.

## Breadth Courses (9-10 Units)

## Human Geography

GEOG 320 Geopolitics ..... 4
GEOG 322 Liberation Ecologies: Globalization, Environment, and Social Movements ..... 4
GEOG 335 Global Food Systems: Scarcity and Sustainability ..... 4
GEOG 340 Conservation of Natural Resources ..... 4
GEOG 345 Tourism Geographies ..... 4
GEOG 350 Urban Geography ..... 4
The Biophysical Environment ..... 4
GEOG 360 Geomorphology ..... 4
GEOG 365 Biogeography and Landscape Ecology ..... 4
GEOG 370 Weather and Climate ..... 4
GEOG 372 Global Climate Change: Past, Present, Future ..... 4

| Field Course and Internship | $1-2$ |
| :--- | ---: |
| GEOG 314AB Field Experience, Northern California | $1-2$ |
| GEOG 314C Field Experience Beyond Northern California | 2 |
| GEOG 314D Field Experience Abroad | $2-3$ |
| GEOG 499 Internship | $2-5$ |
| Concentration Courses (16-17 Units) | 2 |
| GEOG 315 Field Methods in Geography | 4 |
| GEOG 380 Remote Sensing and Image Processing | $3-4$ |
| GEOG 385 Cartographic Visualization | 4 |
| GEOG 387 Introduction to GIS | 3 |
| GEOG 487 Advanced GIS |  |

## Supporting Courses (7-8 Units)

Suggested courses, with substitutions possible in consultation with an advisor
Math 165 Elementary Statistics 4
CS 101 Introduction to Computers and Computing 3
CS 115 Programming I 4

## Geography Major Without Concentration

This option is intended for students who wish to design their own major. It allows students to take a broader range of courses.

## Breadth Courses (11-12 Units)

Geospatial Techniques ..... 4
GEOG 380 Remote Sensing and Image Processing ..... 4
GEOG 385 Cartographic Visualization ..... 3-4
GEOG 387 Introduction to GIS ..... 4
Human GeographyGEOG 320 Geopolitics4
GEOG 322 Liberation Ecologies: Globalization, Env. and Social Movements ..... 4
GEOG 335 Global Food Systems: Scarcity and Sustainability ..... 4
GEOG 340 Conservation of Natural Resources ..... 4
GEOG 350 Urban Geography ..... 4
Upper-Division Physical ..... 4
GEOG 360 Geomorphology ..... 4
GEOG 365 Biogeography and Landscape Ecology ..... 4
GEOG 370 Weather and Climate ..... 4
GEOG 372 Global Climate Change: Past, Present, Future ..... 4
GEOG 375 Natural Hazards ..... 4
Elective courses in Geography (14-15 Units)
Supporting courses outside Geography (8 Units)
Minor in Geography
GEOG 203 Cultural Geography or GEOG 202: World Regional Geography ..... 3
GEOG 204 Global Environmental Systems ..... 4
Upper-division courses chosen in consultation with advisor ..... 13
Total units in the minor ..... 20

## Sample Four-year Program for Bachelor of Arts in Geography

This suggested plan urges students to take one of the lower-division introductory geography courses in the spring of their freshman year. This plan does not identify a concentration, elective courses within the major, or supporting courses, both of which should be chosen after consultation with the Geography advisor(s). The sequence of courses is a suggestion only, so please see your Geography advisor each semester for assistance.

FRESHMAN YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :---: | :---: |
| GE MATH (B4) (3) | GE PHIL 101 (A3) (3) |
| GE ENG 101 (A2) (3) | GE UNIV 200 (A1) (3) |
| GE (3) | GE GEOG 203 (D2) (3) |
| GE (3), University Elective (3) | GE (3), University Elective (3) |
| SOPHOMORE YEAR:: 29 Units |  |
| Fall Semester (15 Units) | Spring Semester (14 Units) |
| GE (3) | GEOG 204 (B3) (4) |
| GE (3), GE (3) | GE (3), GE (3) |
| GE (3) | GE (3) |
| University Elective (3) | GEOG 205 (1) |

JUNIOR YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| Upper-Division GE (3) | Upper-Division GE (3) |
| GEOG (Upper-Div Regional) (4) | GEOG (Upper-Div. Human) (4) |
| GEOG (Upper-Div. Techniques) (4) | GEOG (Upper-Div. Physical) (4) |
| Upper-Div. Supporting (4) | University Elective (4) |

SENIOR YEAR:: 31 Units

| Fall Semester (16 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| Geography Elective (4) | GEOG 490 (4) |
| Geography Elective (3-4) | Upper-Division Supporting (4) |
| Geography Elective (2) | Course or Internship (4) |
| Upper-Division GE (3) | Geography Elective (4) |
| University Elective (3-4) | University Elective (3) |

## TOTAL UNITS:: 120

## Teaching Credential Preparation

The Geography Department participates in a teacher preparation program that certifies the subject matter competence in social sciences required for entry into a teaching credential program and exempts the student from taking the Praxis II Subject Assessment Examination in the social sciences. Geography majors interested in seeking a general elementary credential may demonstrate subject matter competence by passing the Praxis II Multiple Subject Assessment for Teachers. For further information, contact Miriam Hutchins, School of Social Sciences, (707) 664-2409.

DEPARTMENT OFFICE
Darwin Hall 116
(707) 664-2334
www.sonoma.edu/geology
DEPARTMENT CHAIR
Matthew J. James

## ADMINISTRATIVE COORDINATOR

Jen Aaseth
EQUIPMENT TECHNICIAN
Sue Nosker

## Faculty

Matthew J. James
Daniel B. Karner
Matty Mookerjee
Michael E. Smith

## Programs Offered

Bachelor of Science in Geology
Bachelor of Arts in Earth Sciences
Minor in Geology
Minor in Paleontology
Secondary Education Teaching Credential Preparation

Geology is the study of the materials, structures, processes, and history of the earth. Philosophically, it allows us to realize our place in the physical universe within the enormity of geologic time. Practically, it leads to understanding of earth processes, the formation of rocks and minerals, and the energy supplies and materials that support our civilization.
The evolution of modern geologic thought is based on field studies and empiricism. A solid foundation in quantitative field and laboratory analysis provides a firm background in the principles of geology. Students take a fundamental curriculum that concentrates on the analysis of rocks and minerals, geologic mapping, and report writing. Required courses in physics, chemistry, and mathematics support understanding of geologic principles.

## Careers in Geology and Earth Sciences

Within the general field of geology, students may choose from major programs that lead to either a B.S. in Geology or a B.A. in Earth Science. The B.S. in Geology provides an excellent background for graduate school and for work in geology in such fields as engineering geology, environmental geology, hydrology, and mineral exploration. Many of our geology graduates work for consulting firms with
specialties in one or more of these areas. The B.A. in Earth Science provides our students with the background to become teachers, environmental consultants, to work in the energy industry or in governmental positions. Because of the selectivity involved in choosing a program that meets their own particular interests and goals, students must consult with a departmental advisor about their plan of study and their course load each semester.

## Bachelor of Science in Geology

This plan is intended to give the student basic professional competence in geology. A calculus-based series of support courses is highly recommended for students intending to pursue a more quantitative geoscience career. It provides an excellent foundation for graduate school or a professional career in the geosciences such as a Professional Geologist, Hydrologist, or Geophysicist registered with the State of California.

| Degree Requirements | Units |
| :--- | ---: |
| General education | $42^{*}$ |
| Major requirements | 50 |
| Supporting courses | $22-24$ |
| General electives | $4-6$ |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Major Core Requirements

GEOL 205/205a Mineralogy4/1
GEOL 303 Advanced Principles of Geology ..... 4*
GEOL 304 Geologic Mapping and Report Writing ..... 1
GEOL 307 Igneous and Metamorphic Petrology ..... 4
GEOL 308 Igneous and Metamorphic Field ..... 1
GEOL 309 Computer Application in Geology ..... 4
GEOL 311 Sedimentary Geology ..... 4
GEOL 312 Sedimentary Geology Field ..... 1
GEOL 313 Paleontology ..... 4
GEOL 314 Paleontology Field ..... 1
GEOL 317 Structural Geology ..... 4
GEOL 318 Structural Geology Field ..... 1
GEOL 420 Integrative Field Experience ..... 4
GEOL 427 Advanced Field Geology ..... 4
Total units in the major core ..... 41

## Major Electives

Choose 9 units of upper-division geology electives in consultation with a departmental advisor.

## Total units in major electives

## Required Supporting Courses

CHEM 115AB General Chemistry
PHYS 114 Introduction to Physics I
or PHYS 210A General Physics

| PHYS 116 Introductory Laboratory |  |
| :--- | ---: |
| or PHYS 209A General Physics Laboratory | 1 |
| PHYS 214 Introduction to Physics II ${ }^{\dagger}$ |  |
| or PHYS 210B General Physics ${ }^{\dagger}$ | $3 / 4$ |
| PHYS 216 Introductory Laboratory ${ }^{\dagger}$ |  |
| or PHYS 209B General Physics Laboratory ${ }^{\dagger}$ | 1 |
| MATH 161 Calculus I with Analytic Geometry | $4^{\star}$ |
| Total units in supporting courses | $22 / 24$ |
| Total units in the major | $72 / 80$ |

* The standard 51 units of GE are reduced by 3 units each from GEOL 102, GEOL 303, and MATH 161, which are major requirements. These three classes satisfy requirements in GE categories B1, B3, and B4, respectively.
${ }^{+}$GEOL 310 may be substituted.


## Sample Four-year Plan for Bachelor of Science in Geology

FRESHMAN YEAR:: 29 Units

| Fall Semester (14 Units) | Spring Semester (15 Units) |
| :---: | :---: |
| GEOL 102 (3) | MATH 161 (4) |
| CHEM 115A (5) | CHEM 115B (5) |
| GE (6) | GE (6) |
| SOPHOMORE YEAR:: 28 Units |  |
| Fall Semester (15 Units) | Spring Semester (13 Units) |
| GEOL 303 (4) | GEOL 313 (4) |
| GEOL 304 (1) | GEOL 314 (1) |
| GEOL 205 (4) | GEOL 311 (4) |
| GEOL 309 (4) | GEOL 312 (1) |
| GE (2) | GE (3) |
| JUNIOR YEAR:: 29 Units |  |


| Fall Semester (14 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| PHYS 114 (4) | GEOL 307 (4) |
| PHYS 116 (1) | GEOL 308 (1) |
| GEOL 317 (4) | GEOL 310 (4) |
| GEOL 318 (1) | GEOL 323 (3) |
| GE (4) | GE (3) |
|  |  |

Fall Semester (15 Units)
GE (12)
Geology Elective (3)
Spring Semester (15 Units)
GEOL 420 (4)
Geology Elective (3)
GE (8)

SENIOR SUMMER:: 4 Units
GEOL 427 (4) [Summer Field Camp]

TOTAL SEMESTER UNITS:: 120

## Bachelor of Arts in Earth Sciences

At the printing of this catalog, the B.A. in Earth Sciences has not completed the full approval process. The Geology Department hopes/plans to have the B.A. in Earth Sciences completely approved by the start of the Fall semester, 2011. Please see the department web page for updates on the B.A. in Earth Sciences.

## Minor in Geology

Completion of a minimum of 20 units from Geology Department courses will constitute a minor in geology. Six of the 20 units must be upper-division. Students should consult with an advisor in the Geology Department regarding required courses.

## Minor in Paleontology

## PROGRAM COORDINATOR

Matthew J. James / Geology Department (707) 664-2301, james@sonoma.edu

## ADVISORS

Matthew J. James / Geology Department (707) 664-2301, james@sonoma.edu
Nicholas R. Geist / Biology Department (707) 664-3056, geist@sonoma.edu
Karin E. Jaffe / Anthropology Department (707) 664-2944, karin.jaffe@sonoma.edu
Alexis Boutin / Anthropology Department (707) 664-2729, alexis.boutin@sonoma.edu

## Minor in Paleontology

The Minor in Paleontology offers students from any major on the SSU campus a cross-disciplinary concentration in the study of ancient life on Earth. Paleontology is by its very nature an interdisciplinary field of study, blending both laboratory and field studies of modern organisms and extinct organisms. Some paleontologists approach the field from a geological perspective, and others approach it from a biological perspective. For a Minor in Paleontology, students must complete 20 units as described below.

## Minor Core Requirements

## Units

GEOL 102 Our Dynamic Earth 3
GEOL 313 Paleontology 4
BIOL121 Diversity, Structure, and Function, or
BIOL 122 Genetics, Evolution, and Ecology
Total units in the minor core

## Minor Electives

In addition to the Minor Core, choose 9 units of electives from other paleontology courses and/or courses with an emphasis on
interpreting the history of life on Earth, and at least 1 unit that is a field course (marked by asterisk below). All SSU majors may select the Minor in Paleontology, and if you are majoring in either Biology or Geology, at least 3 upper division elective units must be from outside your home department. Additional courses may be counted toward the minor with approval of one of the minor advisors above. The 9 elective units must include at least one 4-unit upper division course with a laboratory from the following list:

ANTH 301 Human Fossils and Evolution 4
ANTH 326 Bioarchaeology [Topics in Archaeology] 4
ANTH 412 Human Osteology
${ }^{\text {tANTH }} 415$ Forensic Anthropology
†BIOL 220 Human Anatomy
†BIOL 322 Invertebrate Biology
†BIOL 327 Vertebrate Biology
†BIOL 328 Vertebrate Evolution and Morphology
BIOL 385 Biology of the Dinosaurs
GEOG 370 Weather and Climate
GEOG 372 Climate Change
GEOL 105 The Age of Dinosaurs
GEOL 120 Regional Field Geology
GEOL 302 Geology of Climate
GEOL 302 Geology of Climate Change 3
†GEOL 303 Advanced Principles of Geology 4
*GEOL 304 Geologic Mapping and Report Writing 1
*GEOL 314 Paleontology Field Course 1
*GEOL 321 Burgess Shale Paleontology 3
†GEOL 326 Stratigraphy and Earth History 4
Total elective units in the minor

* Field courses - one course is required for the minor
${ }^{\dagger}$ 4-unit laboratory courses - one course is required for the minor
Some of these elective courses above might have additional prerequisites not listed here. Refer to the University catalog for additional information.

Total units for the paleontology minor

## Secondary Education Teaching Credential Preparation

Geology and Earth Science students must demonstrate competence in the natural sciences by passing the subject matter examination required by the California Commission on Teacher Credentialing (CCTC). One part of the examination will test breadth of knowledge in biology, chemistry, physics, astronomy, and geology. Another part of the examination will test depth of knowledge in a particular area, such as geology. The B.S. in Geology or the B.A. in Earth Science degrees are recommended to prepare for the part of the examination that tests depth of knowledge in geology. For recommended course selection to help prepare for the part of the examination that tests breadth of scientific knowledge, please see the Teaching Credential section of the SSU catalog. GEOL 107, Introduction to Earth Science, is specifically designed for students who are preparing to take the CCTC single-subject exam.
For more information, please contact the Department of Geology, (707) 664-2334.

## Department Policy for Senior Theses (GEOL 426A/426B)

1. The student must have a 3.00 or higher departmental grade point average.
2. The student must have demonstrated ability to work independently and do quality work in both the lecture and field classes.
3. The student must have time in his/her schedule to complete two semesters of research (three credit hours each) and register for both 426A (in the Fall) and 426B (in the Spring).
4. The student must submit a detailed proposal of research, a schedule, a budget and an initial hypothesis.
5. The student must have a faculty sponsor who is willing to advise the project and will set up a schedule of meetings for this purpose.
6. Two copies of the final paper/report will be filed with the department office before a grade will be assigned.
7. The student will present the results of her/his project at the department colloquium.

# GERONTOLOGY 

DEPARTMENT OFFICE
Stevenson Hall 3075/3092
(707) 664-2586/2411
www.sonoma.edu/gerontology
PROGRAM COORDINATOR
Susan Hillier Ferreira
ADMINISTRATIVE ANALYST
Janet Henker

## ADMINISTRATIVE COORDINATOR

Mary Hanson

## Programs Offered

Minor in Gerontology<br>Certificate in Gerontology<br>Career Minor in Health Systems Organization (Career Minors) Master's Degree Option (Interdisciplinary Studies)

The study of gerontology provides students with a broad, multidisciplinary perspective to examine the aging process and to understand the significance of age in biological, social, cultural, psychological, and political processes. Participation in the gerontology program encourages students to view aging as a normal part of the life cycle, to become aware of the aging process so that they may view it in others with understanding, and eventually in themselves with equanimity, and to consider work in the field of aging.

## Careers in Gerontology

Gerontology prepares students for working directly with elders in program development (health promotion, intergenerational activities, social service centers, community agencies, and retirement communities); direct care (care to frail, ill, or impaired elders in hospitals, clinics, nursing homes, adult day care, or home care programs); counseling elders and their families about caregiving issues, employment, death and dying, or mental health; and advising elders about estate planning and investments, financing long-term care, or housing options. It also prepares students for working on behalf of elders, by analyzing issues related to elders such as retirement opportunities, income maintenance, health care and housing; planning, administering, and evaluating community-based services and service delivery systems for older persons; advocating with or on behalf of elders; designing products to meet the special interests and needs of elders; and advising business, industry, and labor regarding older workers and consumers. Many students continue their education through graduate work in social work, nursing, psychology, and kinesiology.

The gerontology program focuses primarily upon the experience of aging in the United States, although comparative analyses of other societies are developed. By applying an integrated liberal arts perspective to the issues, problems, and dilemmas posed by a longer
life span and a dramatically increased population of older persons, students develop their critical faculties and problem-solving abilities. The field of gerontology offers students opportunities to engage in firsthand research, to develop conceptual analyses, and to plan community projects, as well as to develop a strong background for career development. Those who already work as volunteers or staff in agencies serving the elderly will find the gerontology program valuable in updating their training. Students who plan to pursue professional degrees in psychotherapy, medicine, dentistry, nursing, or social work will find that participation in the gerontology program will assist them in understanding the problems of their future clients. Students may choose to complete (1) the minor in gerontology, (2) a certificate in gerontology, or (3) a special major in gerontology at either the bachelor's or master's levels. In the special major program, students construct individually designed interdisciplinary majors in consultation with the gerontology program coordinator and special major advisor.

## Minor in Gerontology

Students must complete the following 22-unit program:

## Minor Core Requirements

BIOL 318 Biology of Aging 3
GERN 300 The Journey of Adulthood 3
GERN 319 Aging and Society OR
GERN 432 Group Work with Older Adults 4
GERN 499 Gerontology Practicum 4
GERN 421 Psychology of Aging 4
Total units in the minor core 18

## Minor Electives

Choose courses to total a minimum of 4 units from the following list:
AMCS 435 Ethnicity and the Life Cycle 3
BIOL 224 Human Physiology 3
BIOL 307 Human Nutrition 4
GERN 304 Sibling Relations 4
GERN 312 Adult Development Lecture Series 2
GERN 332 Death and American Culture 4
GERN 408 Transitions in Adult Development 4
GERN 422 Living and Dying 4
GERN 452 Health Care and Illness 4
GERN 493 Narrative: Theories \& Methods 4
NURS 493 Health Care Delivery and Financing 3
KIN 360 Physiology of Exercise 4
KIN 410 Lifespan Motor Development 3
NURS 504A Health Care Delivery and Financing 2
NURS 504B Health Care Delivery and Financing 2
PSY 404 Psychology of Women 4
Total units in minor electives 4
Total units in the minor 22

## Certificate in Gerontology

The 28 -unit certificate program is open to those students who are completing or who have received a bachelor's degree.

## Certificate Core Courses

BIOL 318 Biology of Aging ..... 3
GERN 300 The Journey of Adulthood ..... 3
GERN 319 Aging and Society OR
GERN 432 Group Work with Older Adults ..... 4
GERN 499 Gerontology Practicum ..... 8
GERN 421 Psychology of Aging; or
GERN 500 Social and Psychological Issues in Aging ..... 4
Total units in the certificate core ..... 22
Certificate Electives
Choose courses to total a minimum of 6 units from the minor electives list above.
Total units in the certificate electives ..... 6
Total units in the certificate ..... 28

## GLOBAL STUDIES

DEPARTMENT OFFICE

Geography and Global Studies
Stevenson Hall 3066
(707) 664-2194

## MAJOR COORDINATOR

Rheyna Laney (707) 664-2183

## Programs Offered

## Bachelor of Arts in Global Studies

Minor in Global Studies

The Bachelor of Arts in Global Studies is an interdisciplinary program that prepares students for international or intercultural service through the study of other cultures, world history, political and economic systems, world geography and environment, cross-cultural communication and conflict resolution, and a modern language. Recognizing the increasing interdependence of the world and the global nature of contemporary issues, the major is designed to increase awareness and understanding of other cultures and systems as well as global issues, while developing the skills needed to work effectively in a global or multicultural context.

The major requirements include foundational courses, basic areas, an integrative seminar, a field of concentration, a capstone seminar project, intermediate (or better) proficiency in a second language, a cross-cultural living or work experience, and a service internship. Since the foundational and basic area requirements include general education courses, students may meet 18 units of GE while completing major requirements. The approved concentrations include Europe, Latin America, Asia, international economic development, and global environmental policy. In exceptional cases, with the approval of the Global Studies Steering Committee, students may also develop individual concentrations in other disciplines or regions.

Intermediate-level (or higher) proficiency in a modern language other than English is required of all global studies majors. Students may demonstrate this proficiency either by passing an intermediatelevel proficiency exam or by completing a fourth-semester standard language course (202 [plus lab] or equivalent) with a grade of C or better.

All global studies majors are expected to participate in an intensive cross-cultural experience of at least three months duration, during which they speak primarily a language other than their mother tongue. Students normally will meet this expectation by studying or working abroad. When travel abroad is impossible, students may arrange an extended cross-cultural experience closer to home, e.g., living and working for a summer in an immigrant community. (Students who have spent extended time in other than mainstream-U.S.-American circumstances, speaking a language other than English, may already have met this expectation.)

Students interested in declaring a global studies major are urged to take MATH 165 to meet the GE requirement for mathematics, category B.

## Careers in Global Studies

Most global studies majors intend to pursue international careers. Positions most readily available to new graduates without specialized training are with non-profits such as the federal government (Peace Corps, Foreign Service), international service agencies (CARE, UNICEF, or Direct Relief International), and English-language teaching jobs.

Many overseas careers require an advanced degree (e.g., law, business, and international affairs) and/or working your way up within an organization and positioning yourself for an international assignment.

## Bachelor of Arts in Global Studies

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Foundational requirements | $14-31$ |
| Breadth Requirements | $14-15$ |
| Concentration | 20 |
| Capstone requirements | 11 |
| General electives | $0-5$ |
| Total units needed for graduation | $\mathbf{1 2 0 - 1 3 4}$ |

Note: Courses required for the major must be taken for a traditional letter grade, except for courses that are offered Cr/NC only. Students must earn a $C$ - or better in any course applied to the major.

## I. Foundational Requirements (14-31 units)

## 1. Language Skills (0-16 units)

Intermediate level proficiency in a modern language other than English, except where noted

## 2. Global Cultures (choose one)

ANTH 203 Cultural Anthropology (D1) 3
GEOG 203 Cultural Geography (D2) 3
3. Global Environment (choose one)

ENSP 200 Global Environmental Issues (D5) 3
GEOG 204 Global Environmental Systems (B3) 4

## 4. Economic Perspectives

ECON 204 Macroeconomics (D5)

## 5. Global Issues (all required)

GLBL 300 Local Responses to Global Issues (D1) 3
GLBL 350A Introduction to Community Service 1
GEOG 302 World Regions in Global Context (D5) 4

## II. Breadth Requirements (14-15 Units)

(One course from each of the following four areas)

## 1. Political Ideas and Institutions

POLS 303 Comp. Govrt and Global Systems
POLS 304 Intro. to International Relations
POLS 315 Democracy, Capitalism, Socialism (D5)
POLS 452 Third World Political Systems

## 2. Historical Perspectives

HIST 202 Dev. of the Modern World (D2)
HIST 380 20th Century World (D2)

## 3. Globalization and its Social Impact

ANTH 352 Global Issues
GEOG 322 Liberation Ecologies: Globalization, Environment, and Social Movements
WGS 385 Gender and Globalization

## 4. Religious and Ethical Perspectives

PHIL 302 Ethics and Human Value Theory (C3)
SOC 305 Holocaust Lecture Series (D5)
SOC 431 Sociology of Religion (C3)
HUM 301 War and Peace Lecture Series (C3)

## III. Upper-Division Concentrations ( $\mathbf{2 0}$ units minimum)

Students take at least 20 upper-division units in one of the five approved concentrations: Europe; Latin America; Asia; Economic, Political and Social Development; and global environmental policy. Concentrations are described below. In exceptional cases, with the approval of the Global Studies Steering Committee, students may also develop individual concentrations in other disciplines or regions.
No courses used to satisfy breadth requirements may be used to satisfy the concentration requirements. The combination of courses chosen to meet concentration requirements must be approved by the Global Studies advisor.

## IV. Capstone Requirements (11 units)

## 1. Experiences

Cross Cultural Experience
All majors are expected to participate in an intensive cross-cultural experience of at least three months' duration, during which they speak primarily a language other than their mother tongue. Students normally will meet this expectation by studying or working abroad.
GLBL 497 Community Service Internship
2. Classes

GEOG 320 Geopolitics
GLBL 498 Senior Capstone Thesis

## Europe Concentration

Students must take two survey courses from group I, and choose more courses in their regional specialty (groups II-V) to meet the 20unit minimum.
Students choosing groups III, IV, and V must demonstrate advanced proficiency (American Council on the Teaching of Foreign Languages scale definition) in the language of the respective culture (French, Spanish, German, or other appropriate language), either by passing an advanced-level proficiency exam or by successfully completing a third-year standard language course with a grade of "C" or higher.

## Group I: Survey Courses (select two)

ENGL 240 Survey: Later English Literature (post 1789) 4

ENGL 448 Periods in English Literature (Victorian to the present)
HIST 498 Senior Sem: The Atlantic World (1450-1800) 4
Group III: France
FREN 320 France Yesterday (prereq= FREN 300) 4
FREN 321 France Today (prereq= FREN 300) 4
FREN 411 French Literature (prereq= FREN 321) 4
FREN 415 Special Topics in French Culture 4
HIST 420 The French Revolution 4
HIST 498 Senior Sem: The Atlantic World (1450-1800) 4

## Group IV: Iberia

HIST 382 The Mediterranean World (1400-1700) 4
HIST 498 Senior Sem: The Atlantic World (1450-1800) 4
HIST 422 Imperial Spain 4
SPAN 306 Cultures of Spain 4
SPAN 401 Peninsular Literature 4
SPAN 491 Seminar in Literature (with Iberian topic) 4
Group V: Central / Eastern Europe
HIST 415 Eastern Europe (1815-1918) 4
3 HIST 416 Eastern Europe (1918-1989) 4
HIST 417 Origins of Modern Russia 4
HIST 418 Fall of European Communism 4
HIST 419 Soviet Union 4
HIST 498 Senior Seminar (when Eastern European topic) 4
POLS 351 Politics of Russia 4
POLS 352 Politics of Eastern Europe 4
MUS 324 Sonoma County Bach Choir 2
MUS 343 Studies in Musical Genres (when European) 2
SOCI 305 Holocaust Lecture Series 3

## Latin America Concentration

Students must take two survey courses from group I and choose more elective courses to meet the 20 -unit minimum.

Group I: Survey Courses (select at least two)

GEOG 392 Latin American and the Caribbean

GEOG 314D Field Experience Abroad (when Latin America)
ECON 403 Seminar in International Economic Development
HIST 348 Race and Ethnicity in Latin America
HIST 433 History of Mexico
HIST 449 Gender and Sexuality in Latin America
SPAN 402 Latin American Literature
SPAN 491 Seminar in Literature (when Latin American focus)
POLS 345 Model United Nations (when Latin American focus)

## Asia Concentration

Students must take four history and political science courses from group I and choose two arts and humanities classes (group II) to meet the 20 -unit minimum.

## Group I: History and Political Science (select four)

HIST 338 Early Japan to 1650
HIST 438 Modern Japan
HIST 335 Early China to 1500
HIST 435 History of Modern China
HIST 436 Class and Gender in Modern East Asia
HIST 498 Senior Sem: The Pacific since 1500
HIST 498 Senior Sem: Asian Revolutions
POLS 450 The Politics of Asia
POLS 345 Model United Nations *

Group II: Arts and Humanities (choose classes from different departments)
ARTH 474 Islamic Art
ARTH 480 Selected Topics * 3-4
LIBS 320C The Arts and Human Experience *
MUS 301 The Sacred Traditions of South Asia
MUS 352 History, Music and Secular Traditions of South Asia

PSY 342 Psychology of Meditation
PSY 352 Psychology of Yoga
PHIL 390 Advanced Topics in Philosophy *

* when Asian Topic


## Economic, Political and Social Development

Students select courses in consultation with an advisor, with no more than 8 units from a single department.
ANTH 352 Global Issues ..... 4
ANTH 354 Quest for the Other: Tourism and Culture ..... 4
BUS 393 Introduction to International Business ..... 4
BUS 494 International Business Strategy ..... 4
COMS 321 International Communications ..... 4
ECON 303 International Economics ..... 4
ECON 403a Seminar in Int'I Economic Development (prereq ECON 303) ..... 4
ECON 403b Seminar in Int'I Trade (prereq ECON 303) ..... 4
ENSP 330 Energy, Technology, and Society ..... 4
GEOG 322 Liberation Ecologies: Globalization, Environment and Social Move- ments ..... 4
GEOG 335 Global Food Systems: Scarcity and Sustainability ..... 4
GEOG 345 Tourism Geographies ..... 4
POLS 304 Introduction to International Relations ..... 4
POLS 345 Model United Nations, when developing world ..... 4
POLS 447 Nonviolent Strategies in International Relations ..... 4
POLS 448 Political Violence, Terrorism and Law ..... 4
POLS 452 Third World Political Systems ..... 4
POLS 486 International Political Economy ..... 4
WGS 385 Gender and Globalization ..... 4

## Global Environmental Policy Concentration

Students select courses in consultation with an advisor, with no more than 10 units from a single department. Please be attentive to prerequisites within the ENSP major.

ANTH 345 Anthropology and the Environment 4
COMS 323 Environmental Communications 4
ECON 381 Natural Resource and Environmental Economics 4
ENSP 302 Applied Ecology 3-4
ENSP 303 The Physical Environment 3-4
ENSP 306 Environmental Ethics 3
ENSP 307 Environmental History 4
ENSP 310 Introduction to Planning 3
ENSP 315 Environmental Impact Reporting 3
ENSP 322 Conservation Biology 4
ENSP 330 Energy, Technology, and Society 4
ENSP 401 Environmental Policy 4
ENSP 416 Environmental Planning 3
GEOG 322 Liberation Ecologies 4
GEOG 340 Conservation of Natural Resources 4
GEOG 345 Tourism Geographies 4
GEOG 372 Global Change: Past, Present, and Future 4
SOCI 482 Sociology of the Environment 4

## Overseas Concentrations (20 units)

A wide variety of concentration options exist for students who study abroad under the auspices of the CSU International Program (IP). Coursework to be included in such concentrations will depend on the offerings available at the respective foreign universities. Students interested in pursuing such an individualized concentration should consult their Global Studies advisor and the SSU Study Abroad advisor as soon as they have decided which IP study abroad option they intend to pursue.

## Global Studies Minor

With the exception of courses taken to fulfill the language skills requirement, only 4 units may double count with a student's GE requirements. Students who have met requirements through GE will take additional elective classes to meet the 20 unit minimum.

## Core Courses (all required)

ECON 204 Marcroeconomics (D5) 4
GEOG 302 World Regional Geography (D5) 4
GLBL 300 Local Responses to Global Issues (D1) 3
HIST 380 20th Century World (D2) 3

## Language Requirement

Students will demonstrate an intermediate-low level proficiency in a foreign language. This may be met by taking 4-5 units of a foreign language at the 102 level or higher.

Global Cultures (choose one)
ANTH 203 Cultural Anthropology (D1) 3
GEOG 203 Cultural Geography (D2) 3
Globalization and its Social Impact (choose one)
ANTH 352 Global Issues 4
GEOG 322 Liberation Ecologies 4
WGS 385 Gender and Globalization 4
Electives (take additional classes to meet the $\mathbf{2 0}$ unit minimum)

## ANTH 352 Global Issues 4

ANTH 354 Quest for the Other: Tourism and Culture 4
BUS 393 Introduction to International Business 4
COMS 321 International Communications 3
ECON 303 International Economics 4
ENSP 330 Energy, Technology, and Society 4
GEOG 322 Liberation Ecologies 4
GEOG 335 Global Food Systems 4
GEOG 345 Tourism Geographies 4
POLS 304 Introduction to International Relations 4
POLS 345 Model United Nations 4
POLS 447 Nonviolent Strategies in International Relations 4
POLS 448 Political Violence, Terrorism and Law 4
POLS 452 Third World Political Systems 4
POLS 486 International Political Economy 4
WGS 385 Gender and Globalization 4

## HEALTH PROFESSIONS ADVISORY PROGRAM

Darwin Hall 200
(707) 664-2535
www.sonoma.edu/hpac
The Health Professions Advisory Program at Sonoma State University is an advising and support system for undergraduates and post-baccalaureate students preparing for careers in various health professions, including allopathic medicine, osteopathic medicine, dentistry, veterinary medicine, podiatry, optometry, pharmacy, physical therapy, physician assistant, and chiropractic medicine. Please note that advising for physical therapy and nursing are done by the Departments of Kinesiology and Nursing, respectively.

Students interested in entering the health professions will select an appropriate major for undergraduate study. Since a majority of the courses required for admission to health-related programs are in the sciences, most students earn degrees in biology or chemistry before going on to professional schools, although many non-science majors are being accepted.

Most health professions schools require a bachelor's degree for admission, although schools of dentistry, pharmacy, physician assistant, and chiropractic medicine may require fewer units and courses for admission. The following outline of courses will meet the requirements for admission to most medical schools. Since medical schools generally have the most rigid course requirements among the health professions schools, these courses will generally meet or exceed the requirements for other health professions schools. However, it is important to examine closely the requirements for any program and school and take courses to fulfill those requirements. Requirements for entrance into the University of California, Davis, Veterinary Medicine program are different from those for other health professions schools. Pre-veterinary students should consult an advisor in the biology department.

## Courses Required for Admission to Health Professions Schools

The following courses are most generally required for admission to health professions schools:

| Biology | Units |
| :--- | ---: |
| General biology (through cellular and molecular biology) | $8-12$ |
| Some medical schools also require an upper-division course in cell |  |
| biology or genetics. |  |
|  |  |
| Chemistry | 10 |
| Inorganic or general chemistry | $8-10$ |

Some schools also require biochemistry.

## English

Composition and Literature

## Physics

A one-year course with lab
Mathematics
Some schools require a year of college mathematics and/ora calculus course or statistics.4-8
Foreign Language
A few schools recommend a modern foreign language course. ..... 0-8
Psychology
An introductory psychology course is recommended by some schools. ..... 3
Courses for Health Professions
The following courses at Sonoma State University will generally fulfill
the required or recommended courses suggested above:
BIOL 121* Diversity, Structure, and Function ..... 4
BIOL 122* Genetics, Evolution, and Ecology ..... 4
BIOL 123* Molecular and Cell Biology ..... 4
BIOL 328 Vertebrate Evolutionary Morphology ..... 4
BIOL 349 Animal Physiology ..... 4
BIOL 342 Molecular Genetics ..... 4
BIOL 344 Cell Biology ..... 4
BIOL 472 Developmental Biology ..... 4
CHEM 115AB* and 116AB* General Chemistry and Lab ..... 10
CHEM 335AB* Organic Chemistry ..... 8
CHEM 446 Biochemistry ..... 3
PHYS 210AB* and 209AB* General Physics and Lab ..... 8
ENGL 101 and 214 Expository Writing and Literature ..... 6
MATH 161 Calculus ..... 4
MATH 165 Elementary Statistics ..... 4
PSY 250 Introduction to Psychology ..... 3*Required courses for all California medical schools.

Applicants with a grade point average below 3.00 are almost never considered by medical school admissions committees, and few students with a grade point average below 3.40 are accepted.
In addition to the required courses, most health professions students are required to take an appropriate standardized examination such as the Medical College Admissions Test, Dental Admissions Test, or the Graduate Record Examination at, or before, the time of application.
The School of Science and Technology Health Professions Advisory Committee (HPAC) has been established to offer assistance to students interested in careers in the health professions. The main functions of the committee are to:

1. Advise students on how best to prepare for admission to health professions schools. Since the Sonoma State University campus is small, the HPAC has the opportunity to communicate with students on a personal basis. Individual departments may also have pre-health professions advisors;
2. Evaluate candidates and write letters supporting their admission to health professions schools;
3. Provide a practice admissions interview for candidates applying to health professions schools;
4. Coordinate a one-credit university course (Science 150, Introduction to Careers in the Health Professions - offered in fall semester only). This course offers general information sessions by the course coordinator and several guest speakers (health care providers and health professions school admissions officers); and
5. Maintain career information related to health professions, including catalogs from various schools and registration materials for examinations, and centralized application services required for admission to certain programs such as medicine, osteopathic medicine, veterinary medicine, podiatry, and dentistry.

There is a student-run Pre-Health Professions Club on campus. This club meets bi-weekly and brings students of similar interests in the health professions together. In addition, the club arranges for field trips to many health professions schools and speakers related to different health professions.
The chair of the HPAC is the advisor to the Pre-Health Professions student club.
Students interested in a career in the health professions are strongly encouraged to meet with a health professions advisor immediately upon enrolling at Sonoma State University. Appointments to meet with the chair of the HPAC can be made through the HPAC office in Darwin Hall, Room 200, (707) 664-2535. Visit the committee website (www. sonoma.edu/hpac) for more information.

DEPARTMENT OFFICE

Stevenson Hall 2070
(707) 664-2313
www.sonoma.edu/history
DEPARTMENT CHAIR
Michelle Jolly
ADMINISTRATIVE STAFF
Jill Martin, Julie Wood

## Faculty

*Judith Abbott / Medieval Europe and Rome
Theresa Alfaro-Velcamp / Mexican, Latin American, Borderlands History
Stephen Bittner / Russia, Soviet Union, Eastern Europe
Randall A. Dodgen / Asia and the Pacific Basin
Steve Estes / Modern United States History
Mary Halavais / Early Modern Europe, Spain and Latin America
Michelle Jolly / Colonial and Antebellum U.S., California and the West, U.S. Women's History
Amy Kittelstrom / U.S. 1870-1920, Transnational Culture, Ideas, and Religion
Kathleen Noonan / Britain and Ireland, Early Modern Europe, Colonial America
*William Clay Poe / Ancient Near East, Archaeology and Egyptology, Religious Ideas
*Faculty Early Retirement Program

## Programs Offered

Bachelor of Arts in History
Master of Arts in History
Minor in History
Teaching Credential Preparation
The study of history involves the study of all human thought and action, ranging from the economic and the political to the psychological and the artistic. Combining the perspectives and methods of the social sciences and the humanities, it seeks to comprehend the problems and challenges faced by individuals and societies in the distant and recent past, nearby and far away. This understanding of the human experience provides the necessary historical perspective to explain the present. In the process of making sense of our collective and individual past, the student of history develops research, analytical, and communication skills which can be drawn upon in a variety of careers. History majors from Sonoma State have developed careers in journalism, teaching, law, business, public consulting and research, museum and records management, genealogy, library science, and government service.

The history major is designed both to provide the basis for a solid liberal arts education and to meet the needs of individual students. Within the specific requirements of the major, students receive basic instruction in the history of the United States as well as that of other countries. They are also introduced to the methods of historical inquiry, techniques of historical writing, differing philosophies of history and historiography, past and present. Beyond these basic requirements, students may arrange course work to fit their needs and interests. Upper division classes are generally small and offer ample individual attention, guidance, and interaction between students and faculty.

## Careers in History

A history major's skills in historical analysis, writing, and research are highly useful in a variety of careers and professions. In addition to preparation for teaching and graduate work within the discipline of history, the history major provides an excellent background for many post-baccalaureate programs, including law, business, library sciences, and cultural resources management. Public history is a growing field, with careers in government, museums, and historic parks.

Students who plan to pursue graduate work or a teaching career should seek advising early regarding their plan of study. Those who plan extensive graduate study are strongly encouraged to take foreign language courses and to consider the history honors program. Prospective K-12 teachers should prepare for the credential program by taking the relevant prerequisites in education, working with young people of the appropriate grade level, and preparing early for the state teacher and content exams. Through the history department internship program, students may earn credit for history-related internships in a wide variety of areas, such as local museums, historical societies, businesses, and schools.

## History Department Learning Objectives

The History Department at Sonoma State prepares its students to analyze primary and secondary sources and understand the subjectivities inherent in such texts. During their final year, students must take Senior Seminar (HIST 498), where they write and orally present twenty- to forty-page research papers, which are based on primary and secondary sources, and which identify key historiography.

## Objectives:

1 - Analyze and use primary and secondary sources.
Students learn to differentiate between primary and secondary sources and to evaluate the reliability of such sources.

## 2 - Understand historical debate and controversies.

Students learn to understand diverse interpretations and to examine different sides of historical debates.

## 3-Gain an understanding of historiography in given region and time period.

Students learn to understand the ways historians in given regions and time periods have approached history and how the field has changed as new evidence is uncovered and re-examined.

## 4 - Understand how to use evidence in writing research papers.

Students learn to use leading historical journals, texts, and primary sources to examine the ways historians build arguments from evidence. Students in the history program also learn to use proper citations.
5 - Productive skills: writing and oral expression. Students hone their writing and speaking skills and learn to articulate an argument regarding key historical events.

## Bachelor of Arts in History

The B.A. in history is a 40-unit program that students plan in consultation with a departmental advisor. Courses graded $\mathrm{Cr} / \mathrm{NC}$ are not applicable to the history major, except in the cases of HIST 497 Internships and HIST 496 History Journal, where 3 units of Cr/NC are accepted.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | 40 |
| General electives | 29 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Major Core Requirements

HIST 201 Foundations of World Civilization 3-4*
HIST 202 Development of the Modern World 3-4*
*History majors may replace HIST 201 with HIST 303, 335, 339, 400, 401 OR replace HIST 202 with HIST 337, 342,383,411, or 412. Either HIST 201 OR HIST 202 MUST be taken. Completion of either HIST 201 or HIST 202 satisfies GE requirement, Area D2.
HIST 251 The United States to 1877

HIST 252 The United States Since 1865 3-4**
**History majors may replace HIST 251 with HIST 351 OR replace HIST 252 with HIST 252, $445,446,468,470$, or 477 . Either HIST 251 OR HIST 252 MUST be taken. Completion of either HIST 251 OR HIST 252 satisfies GE requirement, Area D3.

HIST 498 Senior Seminar

Total units in the major core

## Major Electives

To finish the major, students must complete additional units in history to total 40 units. These units must include one upper-division course in European history and one course on an area of the world other than the United States or Europe (upper-division substitute for HIST 201/202 may not count for this). Three (3) units of electives can be lower-division; the remaining 20-21 units must be upper-division.

> Total units in major electives 22-24

Total units in the major 40

## History Honors Program

Eligible* students must have completed the major core requirements, except for the Senior Seminar, to earn the honors degree:
HIST 498 (or designated Senior Seminar) 4
HIST 499 Honors Seminar (to complete an Honors Thesis) 4
Total units needed for history honors degree 44

* Eligibility for the history honors degree:

1. A 3.50 GPA at Sonoma State University or overall; and
2. Demonstrated proficiency in a foreign language.

## Minor in History

Students contemplating a minor in history should consult the History Department for advising early in their academic careers. Courses graded $\mathrm{Cr} / \mathrm{NC}$ are not applicable to the history major.

## Minor Core Requirements

One Lower-Division Course in World History
EITHER HIST 201 Foundations of World Civilization
OR HIST 202 Development of the Modern World
(Completion of either HIST 201 or HIST 252 also satisfies GE area D2.)
One Lower-Division Course in United States History
EITHER HIST 251 History of the United States to 1877
OR HIST 252 History of the United States since 1865
(Completion of either HIST 251 or HIST 252 also satisfies GE area D3.)
Total units in the minor core

## Minor Electives

To finish the history minor, students must complete 16 units of upper-division work in history, usually 4 courses. Students may not count additional lower-division units toward the minor.

> Total units in minor electives

Total units in minor

## Sample Four-Year Program for Bachelor of Arts in History

FRESHMAN YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| GE PHIL 101 (A3) (3) | GE HIST 201 (3)* |
| GE ENGL 101 (A2) (3)* | GE HIST 251 (D3) (3)* |
| GE Electives (B1, C1, C2) (9) | GE Electives (A1, B2, B4) (9) |
| SOPHOMORE YEAR:: 31 Units |  |


| Fall Semester (15 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| GE HIST $202(3)^{\star}$ | GE Electives (6) |
| GE HIST $252(3)^{\star}$ | Electives (including HIST) (10) |
| GE Electives (C2, B3, D5) (9) |  |

JUNIOR YEAR:: 30 Units

| Fall Semester (16 Units) | Spring Semester (14 Units) |
| :--- | ---: |
| History Elective (4) | History Electives (8) |
| History Elective (4) | UD GE (C4) (3) |
| UD GE (D4) (3) | UD GE (C5) (3) |
| Electives (5) |  |

SENIOR YEAR:: 29 Units

## Fall Semester (14 Units)

History Electives (8)
Electives (6)
Spring Semester (15 Units)
HIST 498 (4)
Electives (11)
TOTAL UNITS:: 120
*ENGL 101 (or its equivalent) is a prerequisite for HIST 201, 202, 241, 242, 251 and 252.

## Teaching Credential Preparation

History majors-or majors in other programs-interested in seeking a general elementary credential or secondary school credential for social sciences may demonstrate subject matter competency by passing the CSET Multiple Subjects Exams or the CSET Single Subject Exam in Social Science. For further information and guidance, contact Steve Estes, Department of History, (707) 664-2424.

## Master of Arts in History

## Requirements for Admission

1. B.A. degree from an accredited institution. Students with undergraduate majors in fields other than history will be required to complete prerequisites before entering the program;
2. Grade point average of 3.00 or better in the undergraduate history major (and in previous graduate courses attempted) as evidenced by the transcripts furnished. Grade point average of 3.20 or better in history for non-majors;
3. Completion of the general test Graduate Record Examination with scores acceptable to the departmental Graduate Studies Committee;
4. Three letters of recommendation, completion of program application and personal statement, and a writing sample;
5. Completion and acceptance of separate application for admission to the University (Office of Admissions and Records). GRE test scores required; and
6. Favorable recommendation for admission by the departmental Graduate Studies Committee after review of the complete file. This confers advancement to classified standing as a graduate student.
For more information, please refer to Graduate Degrees in the Degree Requirements section of this catalog.

## Requirements for the M.A.

1. Advancement to candidacy form (M.A. in history) signed and submitted to Graduate Office;
2. Grade point average of 3.00 or better for all work attempted in graduate status and in all work approved as a part of the specific pattern of study. With the approval of the student's committee chair and the graduate advisor, a maximum of 9 units of post-graduate transfer or extension credit (or any combination of the two) may be included as part of the student's specific pattern of study. All courses are to be taken for letter grade;
3. All requirements for the M.A. degree in history, including language and conditional requirements stipulated at the time of admission to candidacy, must be satisfactorily completed within seven years from the time the first course is completed. Completion of Requirements form must be signed and submitted to the graduate office; and
4. With the approval of the student's committee chair and the departmental graduate advisor, the satisfactory completion of one of the following two options:

## Master's Thesis Option

(Chosen in consultation with committee chair):
Courses at the 300 or 400 level
Graduate courses at the 500 level (including two seminars) 9
HIST 599 Master's Degree Thesis Research 6
Total units required for the M.A.

## Comprehensive Examination Option

(Chosen in consultation with committee chair):
Courses at the 300 or 400 level
Graduate courses at the 500 level (including HIST 500 and 510) 9
HIST 598 Comprehensive Examination Reading and Research 6
Total units required for the M.A.

## HUMAN DEVELOPMENT

PROGRAM OFFICE
Stevenson Hall 3066
(707) 664-2194

## HUMAN DEVELOPMENT COORDINATOR

Rita Butterfield
Stevenson Hall 3057
(707) 664-2453
e-mail: rita.butterfield@sonoma.edu
www.sonoma.edu/humandevelopment
Students interested in earning a major in Human Development should consult an advisor.

## HUMAN DEVELOPMENT ADVISORS

Karin Enstam Jaffe / Biological Anthropology (707) 664-2944 /
email: karin.enstam@sonoma.edu
Johanna Filp-Hanke / Early Childhood Education (707) 664-2280 /
email: johanna.filp@sonoma.edu
*Susan Hillier Ferreira / Gerontology/Psychology (707) 664-2586 /
email: hillier@sonic.net
Gerryann Olson / Psychology (707) 664-2265 / email: olsong@ sonoma.edu
Richard J. Senghas / Linguistics and Anthropology (707) 664-2307 / email: richard.senghas@sonoma.edu
Charlene Tung / Women's and Gender Studies (707) 664-2086 / email: charlene.tung@sonoma.edu
*Faculty Early Retirement Program

## Program Offered

Human Development is an interdisciplinary liberal arts program that focuses on human growth and development across the life span, the underlying processes and structures that support that development, and the relationship between the individual and the complex familial, social, and cultural environments in which development is situated.

The Human Development major is designed to provide students with a comprehensive grounding in complementary theoretical approaches to human development across the life span in comparative cross-species, cross-cultural, and multicultural, as well as class and gender perspectives. All students are required to take the core, plus perspectives, one methodology course, and to complete a senior project. Students must receive C or better in the core and elective courses.

## Careers in Human Development

A B.A. in Human Development will help prepare students for professional, managerial, service, and educational careers in human development and human services serving infants, children, adolescents, families, and elders. This degree will complement students' preparation for graduate studies in traditional fields such as psychology, sociology, anthropology, and human development.

## Bachelor of Arts in Human Development

## Prerequisites to the Major

- Sophomore standing.
- 2.50 GPA.
- Completion of the following required GE categories with a C or better:
- A2 (ENGL 101).
- A3 (Critical Thinking).
- Completion of or enrollment in the following GE courses:
- BIOL 110, BIOL 115 Introduction to Biology or ANTH 201 Introduction to Biological Anthropology (BIOL 115 or ANTH 201 meet prerequisite for ANTH 318).
- MATH 165 Elementary Statistics.
- ANTH 203 Introduction to Cultural Anthropology, PSY 250 Introduction to Psychology, or SOCl 201 Introduction to Sociology.
- ENGL 203 Introduction to Linguistic Studies or ANTH 200 Introduction to Linguistic Anthropology.

Total units required for B.A. in Human Development

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements*, including |  |
| $22-24$ units core requirements |  |
| 16-18 units electives, selected from comparative, |  |
| sociological, psychological, and methodology |  |
| categories | 40 |
| Electives | 29 |
| Total units needed for graduation | 120 |

*This is the minimum number of units; more units may be required for certain course choices.

## Major Core Requirements (22-24 units)

HD 391 Seminar in Human Development (taken in the junior year) 2
ANTH 342 Organization of Societies or 3-4
ANTH 340 Living in a Pluralistic World (GE-E) or 3
WGS 385 Gender and Globalization or 3-4
SOCI 485 Organizations and Everyday Life
ANTH/HD 318 Human Development: Sex and the Life Cycle (GE-E) 3
GERN/PSY 421 Psychology of Aging or
GERN/PSY 408 Adult Development
4
KIN 410 Lifespan Motor Development 3
PSY 410 Child Development or
PSY 412 Adolescent Development or
EDEC 420 Child Development in Family, School, and Community (GE-E) 3-4
WGS 350 Gender, Sexuality, and Family 3
HD 490 Senior Project (taken in last semester) 1

## Major Electives

Students choose a minimum of 16 units from among the following groups of courses, taking one or two courses from each category for a total of 40 upper-division units (core + electives $=40$ units). In addition, service learning and internship courses are strongly recommended. Classes in foreign languages commonly spoken in California are strongly recommended.

Substitutions can be made in elective courses with the consent of an advisor.

## Comparative Perspectives

ANTH 302 Biological Basis of Sex Differences 4
ANTH 340 Living in a Pluralistic World (GE-E) 3
ANTH 380 Language, Culture, and Society 4
ANTH 386 Sign Language and Signing Communities 4
EDUC 417 School and Society 4
GERN/SOCI 319 Aging and Society 3
ANTH 383 Language in a Sociopolitical Context 4
PSY 328 Cross-Cultural Psychology 4
WGS 375 Gender, Race, and Class (GE-D1) 3

## Sociological Perspectives

CCJS 441/SOCI 314 Deviant Behavior 4
EDMS 470 Multicultural Pedagogy 3
GERN/SOCI 332 Death and American Culture 4
GERN/PSY/SOC 432 Group Work with Older Adults 4
SOCl 312 Sociology of Gender 4
SOCI 315 Socialization 4
SOCI 326/PSY 326 Social Psychology (GE D1) 3-4
SOCI 445 Sociology of Childhood and Adolescence
WGS 440/SOC 440 Sociology of Reproduction 3
WGS 390 Gender and Work 4
Psychological Perspectives
EDEC 420 Child Development in Family, School, and Community (GE-E) 3
PSY 302 Psychology of the Person (GE-E) 3
PSY 411 Behavioral and Emotional Problems of Children 3-4
PSY 412 Adolescent Psychology 3-4
PSY 418 The Psychology of the Family 3-4
PSY 447 Learning and Behavior 4
PSY 448 Cognitive Development 4
PSY/GERN 422 Seminar in Living and Dying 3-4
PSY 461 Personality Development 4

## Methodology

Choose one of the following:
ANTH 451 Applied Ethnographic Methods 4
ANTH 480 Studies of Language Use 4
EDEC 331 Practicum in Child Study 3
PSY/GERN 493 Narrative Methods 4
PSY 380 Introduction to Psychological Research Methods 4
PSY 441 Qualitative Methods 4
SOCI 300 Sociological Research Methods 4
WGS 425 Feminist Research Methods 4

## HUTCHINS SCHOOL OF LIBERAL STUDIES

## DIRECTOR

Heidi Lamoreaux

## ADMINISTRATIVE COORDINATOR

Dacia Sandoval
PROGRAM ADVISOR
Donna Garbesi

## Faculty

*Les Adler
Stephanie Dyer
Ben Frymer
Ajay Gehlawat
Debora Hammond
Janet Hess
Nelson Kellogg
Heidi LaMoreaux
Eric McGuckin
Mutombo M'Panya
Wendy Ostroff
Francisco H. Vázquez
*Faculty Early Retirement Program

## Overview

A nationally recognized leader in the movement for reform in higher education, the Hutchins School has maintained its commitment to innovative pedagogy and interdisciplinary inquiry into vital issues of modern concern since its inception in 1969. The program is designed to encourage students to take themselves seriously as readers, writers, and thinkers capable of continuing their own educational process throughout their lives.
The Hutchins School is an interdisciplinary school within Sonoma State University offering lower-division students an alternative General Education program that integrates material from the humanities, the social sciences, and the natural sciences. It offers upper-division students a similarly integrated major in Liberal Studies leading to a B.A. degree. It offers a multiple subject preparation program for pre-credential students, and a blended program leading to a B.A. and multiple subject teaching credential in four years. A minor in integrative studies is also offered.

The Hutchins School has several distinctive features:

- An emphasis on active participation in one's own education, on self-motivation, and on learning to learn;
- Small, seminar classes;
- Close cooperation and a feeling of community among students and professors;
- A diverse faculty, each member trained in more than one field of study, to help students learn how to approach a problem from several points of view;
- Courses organized around themes or questions, rather than according to the traditional division of subject matter into disciplines (Please see course descriptions below.);
- Encouragement to engage in independent study projects and study abroad programs;
- Internship/field study to bridge academic studies with career placements and community service; and
- An opportunity for student-instructed courses.

Hutchins is also committed to offering students opportunities for contributing to and learning from local communities. Some seminars include a service learning component which enhances the reading, writing, and discussion of shared materials through applied service projects. These seminars provide hands-on experience for students while also creating valuable partnerships with local community organizations. Through service, Hutchins students can draw connections between what they discuss in seminar with how they live their lives, enabling them to integrate critical thinking, active participation, and careful reflection.

Students in other majors may complete a Hutchins School integrative studies minor to help place their disciplines in a wider intellectual context.

## Careers in Liberal Studies

Hutchins School graduates do especially well in teaching, counseling, social services, law, media, journalism, and many types of businesses. They have entered graduate programs in fields as diverse as American studies, anthropology, business, counseling, English, history, law, library science, management, medieval studies, physics, religion, sociology, and theatre arts.

Students seeking a teaching credential in elementary or early childhood education can enroll in the Track II: Subject Matter Preparation for the Multiple Subject Teaching Credential. If they prefer an accelerated track, they can enroll in the Track III: Blended Program, which allows them to complete their B.A. degree and complete all requirements for the Multiple Subject Teaching Credential in four years. Students may transfer to another program at the end of any semester without loss of credit successfully completed in the Hutchins program.

Whatever their particular interests, all Hutchins students are challenged to read perceptively; to think both critically and imaginatively; to express their thoughts and feelings in writing, speech, and other media; and to make productive use of dialogue and discussion. By developing these skills, students will be ready to take a position in a democratic society as thoughtful, active citizens conversant in a broad range of disciplinary perspectives. Through seminar discussions, essays, research, and other assignments, students will be prepared for a wide variety of careers in which creative, independent thinking and effective written and oral communication are the prime requisites.

## Admission

In general, the Hutchins School accepts students at the freshman or junior level for fall admission only, although exceptions are made depending on space availability. When applying to the University, all students seeking admission to the Hutchins School should list Liberal Studies/Hutchins, Hutchins School as their major (select code 49015 on paper application).
Students applying as freshmen must have a grade point average of 3.00. Students seeking admission into the Hutchins Blended Program as freshmen must test into college level English and math (through passage of the ELM and EPT or their equivalent).
Students already at Sonoma State seeking admission into the Hutchins program must file a separate Hutchins application form by February 15 for the fall semester and by October 1 for the spring semester. Application forms are available in the Hutchins School Office or online: http://www.sonoma.edu/hutchins/pages/academic/ admissions/admissions.htm
Students seeking admission to Track II as junior transfers must complete all lower-division general education requirements, with specific requirements in the following areas. Students may take these courses while enrolled in the major.

BIO 110: Biological Inquiry (or equivalent)
CHEM 107: Introduction to Physical Sciences (or equivalent chemistry, physics, or astronomy course)

GEOL 107: Introduction to Earth Science (or equivalent course)
Geology or physical geography
MATH 150: Geometry (General Education math fulfills this requirement for off-campus transfers)

A course in the history of the visual arts
A course in the performing arts: dance, music, or theatre
Whether transferring into the Track III Blended Program as freshmen or into track I or II as juniors, students must file a separate application available at: http://www.sonoma.edu/hutchins/pages/academic/ forms/_applying.htm.

| Degree Requirements | Units |
| :---: | :---: |
| General Education Lower-Division (May include 48 units in LIBS Integrative GE) | 51 |
| Major Requirements (up to 3 units may be applied to upper GE Area E) | 0 |
| General Education Upper-Division (Waived upon completion of Tracks II or III) | 9 |
| SSU Electives (Track I) or Subject Matter Preparation (Track II) | 20 |
| Total units needed for graduation | 120 |

General Education Lower-Division
(May include 48 units in LIBS Integrative GE)51

Major Requirements
upper GE Area E)
40
(Waived upon completion of Tracks II or III) 9
SSU Electives (Track I) or

Total units needed for graduation

Interdisciplinary General Education Program Lower-Division

The lower-division program of the Hutchins School fulfills, with the exception of mathematics, all of the Sonoma State University lowerdivision general education requirements. Upon completion of the lower-division General Education program in Hutchins, students may elect to continue in the program as a liberal studies major, or they may transfer into another major at any point in the program. The program consists of four interdisciplinary seminars of 12 units each, taken successively as follows:

## LIBS 101: The Human Enigma (Fall)

## LIBS 102: In Search of Self (Spring)

LIBS 201: Exploring the Unknown (Fall)
LIBS 202: Challenge and Response (Spring)
Each of these seminars is made up of 10 to 15 students and a professor. Learning proceeds by a process of reading, writing, and discussion, in which all students are urged to take an active part. There are generally four to six sections of each seminar offered simultaneously, so that each seminar is part of a larger learning community that meets together once a week for lectures, field trips, labs, and other group projects. The curriculum for these seminars is developed collaboratively by the faculty facilitating each seminar section, thus drawing on a wide range of disciplinary expertise.
Strongly emphasizing excellence in written communication, the program includes extensive writing projects and regular tutorials. Several of the small seminar sections come together once a week for group activities, including field trips, labs, lectures, films, group presentations, and other hands-on learning experiences. The emphasis throughout is on the critical examination of contemporary problems in their historical contexts. Each student is expected to arrive at conclusions that result from personal reflection and exploration of the ideas of major thinkers in diverse fields.
At mid-semester, students meet individually with the professor to discuss their progress. At this point, they have an opportunity to reflect on and assess their own learning, a key ingredient in developing the skill of lifelong learning. At the end of every semester, the student receives an official grade of credit or no credit. The student also is given a copy of a detailed evaluation of his or her work, which is placed in the student's Hutchins file but not entered on the official University record or used to compute a grade point average. This evaluation assesses the student's cognitive skills, seminar participation, understanding of the course content, writing skills, independent project, and special course assignments. A written commentary addresses each student's particular strengths and indicates the way in which the student should improve in order to become an effective, lifelong learner. Thus, the evaluation conveys a great deal more information than does a single letter grade. Unofficial grades can, at the student's request, be made available to other schools, agencies, or prospective employers who need a quantitative measure of performance.

A student who does not work well within the Hutchins program may receive credit with a probationary or terminal qualification, or a terminal no credit. If the student's enrollment remains probationary for two semesters, or is terminated, he or she must transfer out of the Hutchins program.

## Bachelor of Arts in Liberal Studies Upper-Division

Options for the bachelor's degree include: Track I, the General Liberal Studies Major plan; Track II, the Subject Matter Preparation (pre-credential) plan; and Track III, the Blended Program/B.A. plus Multiple Subject Credential.

The general pattern for the major in all three tracks is outlined in the table below. During their first semester in the upper-division, all transfer students are required to take LIBS 302. In this course, students work on the skills required in the major, develop their own learning plans, and begin the portfolio, a document the student expands throughout the upper-division and brings to a close in LIBS 402 Senior Synthesis. LIBS 302 is a prerequisite for all upperdivision Hutchins courses. Students continuing from Hutchins lowerdivision, however, are exempt from LIBS 302. Any student earning a grade lower than a C in LIBS 302 will not be allowed to continue in the Hutchins program.

Also, in each of their first two semesters, students will take a key course designed to involve them in a discussion and critique of some of our most fundamental beliefs and values, viewed in a worldwide context. (Please see LIBS 304 and 308.)

## Requirements for the Major

## First Semester

LIBS 302 Introduction to Liberal Studies, and
LIBS 304 We Hold These Truths (Fall) or
LIBS 308 The Practice of Culture (Spring)

## Subsequent Semesters

LIBS 304 and 308 (2 semester sequence)
One course from each of 4 core areas:
LIBS 320A Society and Self
LIBS 320B Individual and the Material World
LIBS 320C The Arts and Human Experience
LIBS 320D Consciousness and Reality
Additional requirements and electives (per track described below)

## Final Semester

LIBS 402 Senior Synthesis
Total units Hutchins Major

## Core Seminars

Building on the foundations laid in the key courses, the student chooses at least one seminar from each of the following four core areas:

## Core A Society and Self

Core B The Individual and the Material World
Core C The Arts and Human Experience
Core D Consciousness and Reality
The core seminars are a key element of the curriculum in the Hutchins Major. Core areas are designed to ensure that the intensive learning experience provided in the small seminar format is spread across the disciplinary spectrum, although all core courses offer an interdisciplinary perspective on a particular theme.

## Track I Interdisciplinary Studies

Those students wishing a broad interdisciplinary major as a foundation for their career choice (e.g. the arts, the law, public service, etc.), or who are motivated by intellectual curiosity and wish to pursue an individualized study plan, often choose interdisciplinary studies. Track I students may use up to 9 units from other majors or 12 units from approved study abroad program as part of their emphasis in the Hutchins major, and we strongly encourage these students to consider doing a minor in another field. Alternatively, students majoring in interdisciplinary studies will complete the 17 additional units by choosing from a wide variety of courses which include elective seminars, workshops, independent and directed studies, internships, and Study Away opportunities.

LIBS 310/315/410/415 Directed or Independent Study
LIBS 396 Field Study
LIBS 397 Study Away
LIBS 399 Student Instructed Course
LIBS 499 Internship
Students in Track I may organize an area of emphasis within the 40 units required for the major which reflects their career plans and/ or intellectual interests. Track I students may use up to 9 units from other majors as part of their emphasis in the Hutchins major, and we strongly encourage these students to consider doing a minor in another field. Alternatively, students may engage in artistic and creative activities, research and scholarly investigations, Hutchins community projects, social and community action opportunities, or gather together a variety of experiences that they find intellectually satisfying. Many Track I students have found the internship or Study Away program (one of which is required for the major) valuable.

The Study Away/internship requirement, often preceded by a semester of independent study related to the placement, allows students to include, as part of their major, experiences as diverse as (1) a period of domestic or international study and travel; (2) an independent project in a nearby community; (3) an internship with a local arts organization, business, school, or social service agency; (4) substantial involvement in a program with another department on this or some other campus; or (5) other options and activities created by the student in consultation with an advisor. Whether close at hand or far away, the Study Away/internship experience can help students relate their education to specific career choices,
greater intellectual understanding, and their place in an ever-larger world.

## Sample Four-Year Plan for Bachelor of Arts in Liberal Studies, Track I <br> FRESHMAN YEAR:: 30 Units

Fall Semester (15 Units)
ENGL 101 (A2) (3)
Math GE (B4) (3)
Humanities GE (C1) (3)
Physical Science GE (B1) (3)
Elective (3)

Spring Semester (15 Units)
BIOL 110 (B2) (4)
Ethnic Studies (D1) (3)
PHIL 101 or 102 (A3) (3)
World History GE (D2) (3)
Elective (2)

## SOPHOMORE YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| Written and Oral GE (A1) (3) | Humanities GE (C3) (3) |
| Humanities GE (C2) (3) | Humanities GE (C4) (3) |
| POLS 200 (D4) (3) | Specific Emphasis Science (B3) (3) |
| Physical Science GE (B1) (3) | U.S. History GE (D3) (3) |
| Elective (3) | Elective (3) |
|  |  |
| JUNIOR YEAR:: 30 Units |  |

Fall Semester (15 Units)
Spring Semester (15 Units)

LIBS 304 (3) LIBS 320 (3)
Upper-Division GE Course (D5) (3) LIBS 310 (3)
Elective or Emphasis (6)
Electives or Emphasis (6)

SENIOR YEAR:: 30 Units

## Fall Semester (15 Units)

LIBS 320 (3)

## LIBS 499 (3)

Upper-Division GE Elective (3)
Electives or Emphasis (6)

Spring Semester (15 Units)
LIBS 320 (3)
LIBS 320 (3)
LIBS 402 (4)
Electives (5)
TOTAL UNITS:: 120

## LIBS/M.B.A. Advising Pathway

The flexibility of the Track I program in liberal studies lends itself to a broad variety learning experiences and careers. For example, by following the pathway below, a liberal studies major may complete the requirements to enter a Master of Business Administration program upon graduation.

## Sample Four-Year M.B.A. Prep Advising Path

FRESHMAN YEAR:: 31 Units

| Fall Semester (15 units) | Spring Semester (16 units) |
| :---: | :---: |
| LIBS 101 (12) | LIBS 102 (12) |
| Elective Units (3) | Math 165 (4) |
| SOPHOMORE YEAR:: 32 Units |  |
| Fall Semester (16 units) | Spring Semester (16 units) |
| LIBS 201 (12) | LIBS 202 (12) |
| ECON 201A (4) | ECON 201B (4) |
| Declare Business Minor |  |
| JUNIOR YEAR:: 31 Units |  |
| Fall Semester (16 units) | Spring Semester (15 units) |
| LIBS 304 (3) | LIBS 308 (3) |
| LIBS 320 (3) | LIBS 320 (3) |
| LIBS 499 (3) | LIBS 410 (3) |
| BUS 231A (4) | BUS 230B (4) |
| Upper-Division GE (3) | BUS 295 (2) |
| Pass PCCR Exam | Take GMAT |
| Take WEPT |  |
| SENIOR YEAR:: 28 Units |  |
| Fall Semester (14 units) | Spring Semester (14 units) |
| LIBS 320 (3) | LIBS 402 (4) |
| BUS 360 (4) | LIBS Elective (3) |
| BUS 344 (4) | LIBS 320 (3) |
| Upper-Division GE (3) | BUS 370 (4) |
| TOTAL UNITS:: 122 |  |

## Track II Multiple Subject (Pre-Credential) Preparation

The Hutchins School offers a state-approved subject matter preparation program for students intending to earn a California Elementary Teaching Credential or an Early Childhood Emphasis Credential. While students are no longer allowed to waive the California Subject Exam for Teachers (CSET), the B.A. pre-credential option ensures interdisciplinary subject matter proficiency as well as possession of the high-level analytic, synthetic, creative, and expressive academic skills required of future educators. Coursework is carefully planned to meet state-mandated content standards for prospective elementary teachers and provides excellent preparation for the CSET exam, as well as for admission to a professional teacher training program. In addition to the courses described above, students will be required to take the following courses as part of their major. Upper-division GE requirements can be met through the completion of the Multiple Subject program, which includes concentration in a specific subject. (See Hutchins website for details):

LIBS 312: Schools and Society
LIBS 327: Literacy, Language, and Pedagogy or
ENG 379: English Language
LIBS 330: The Child in Question
MATH 300A: Elementary Number Systems 3
$-\quad 3$
MATH 300B: Probability and Statistics

## Sample Four-Year Plan for Bachelor of Arts in Liberal Studies, Track II

FRESHMAN YEAR:: 30 Units

## Fall Semester (15 Units)

ENGL 101 (A2) (3)
MATH 150 (B4) (3)
ARTH, THAR, or MUS (C1) (3)
BIOL 110 (B2) (4)
Elective (2)

Spring Semester (15 Units)
CHEM, Physics, or Astronomy (B1) (3)
Ethnic Studies (D1) (3)
PHIL 101 or 102 (A3) (3)
World History GE (D2) (3) Elective (3)

SOPHOMORE YEAR:: 30 Units

Fall Semester (15 Units)
Written and Oral Analysis GE (A1) (3)
Humanities GE (C2) (3)
POLS 200 (D4) (3)
Concentration Course (3)
Elective (3)

Spring Semester (15 Units)
Humanities GE (C3) (3)
Humanities GE (C4) (3)
GEOL or Physical GEOG (B1 or B3) (3)
U.S. History GE (D3) (3)

Concentration Course (3)
JUNIOR YEAR:: 30 Units

## Fall Semester (15 Units)

LIBS 302 (3) LIBS 308 (3)
LIBS 304 (3)
MATH 300A (3)
LIBS 320 (3)
LIBS 312 (3)
KIN 400 (3)
Concentration Course (3)
MATH 300B (3)
ARTH, THAR, or MUS (3)
SENIOR YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |  |
| :--- | ---: | ---: |
| LIBS 320 (3) | LIBS 320 (3) |  |
| LIBS 330 (3) | LIBS 320 (3) |  |
| LIBS 327 (3) | LIBS 402 (4) |  |
| EDMS 470 (3) | Electives (5) |  |
| Concentration Course (3) |  |  |
|  |  |  |
|  |  |  |

## Track III Blended Program

The Blended Program incorporates the lower-division Hutchins General Education program and the basic course work for Track II with courses from the School of Education beginning in the junior year, allowing students to complete a B.A. in liberal studies and a Multiple Subject Teaching Credential as follows:

## Sample Four-Year Plan for Bachelor of Arts in Liberal Studies with Teaching Credential, Track III

FRESHMAN YEAR:: 34 Units

| Fall Semester (17 Units) | Spring Semester (17 Units) |
| :---: | :---: |
| LIBS 101 (12) | LIBS 102 (12) |
| EDMS 100 (2) | EDMS 200 (2) |
| MATH 150 (3) | CHEM, Physics, or Astronomy (3) |
| Take CBEST or CSET: Writing Skil Exam spring/summer. |  |
| SOPHOMORE YEAR:: 35-36 Units |  |
| Fall Semester (18 Units) | Spring Semester (17-18 Units) |
| LIBS 201 (12) | LIBS 202 (12) |
| LIBS 312 (3) | LIBS 330 (3) |
| GEOL or PHYSICAL GEOG (3) | Performing Arts Elective: |
| Certificate of clearance - Apply | Music, Theater |
| For Live Scan and Clear TB test. | or Dance survey or history (2-3) |
| Apply to Education Program | Interviews April |
| (Nov.- Jan). |  |
| JUNIOR YEAR:: 36 Units |  |


| Fall Semester (18 Units) | Spring Semester (18 Units) |
| :---: | :---: |
| LIBS 304 (3) | LIBS 308 (3) |
| LIBS 320 (3) | LIBS 320 (3) |
| LIBS 320 (3) | KIN 400 (3) |
| LIBS 327 (3) | MATH 300A (3) |
| EDMS 470 (3) | EDMS 463 (3) |
| EDMS 411 (3) | EDMS 475 (3) |
| Take the WEPT during academic year. Apply for fall graduation by audit deadline. | Re-apply to SSU as postbaccalaureate student Aug 1 - Aug 31. |


| Fall Semester (16 Units) | Spring Semester (14 Units) |
| :---: | :---: |
| LIBS 320 (3) | EDMS 482F: Student Teaching (10)* |
| LIBS 402 (4) | EDMS 464 (2) |
| MATH 300B (3) | EDMS 471 (2) |
| EDMS 474 F(3) | EDMS 476F (3) |
| EDMS 464S (2)* |  |
| *Enrollment in EDMS 4765 is optional. |  |
| * Students will attend EDMS 482S on-site, but are not required to enroll in course, and will complete CWS-2 E-Portfolio. |  |
| TOTAL UNITS:: 135-136 |  |
| Some courses may be taken during the summer. |  |
| In order to continue in the progra mendation of their professors | first year, students must have the recomBS 102, EDMS 100, and EDMS 200. |

## Minor in Integrative Studies

The Hutchins minor is designed to help the student in a traditional discipline understand the relation that his or her major field of study bears to a number of other areas of inquiry and expertise. The minor consists of 20 units, taken in the Hutchins School, and is distributed as follows:

LIBS 302 Introduction to Liberal Studies (3) (exempt for students continuing from the LIBS Iower division)

LIBS 402 or 403 Senior Synthesis (4)

Choice of courses from the following (13 units total):
LIBS 304: We Hold These Truths (3)
LIBS 308: Practice of Culture (3)
LIBS 320 (A, B, C, or D): Core Seminars (3)
LIBS 310/410: Directed Study (1-4)
IIBS 399: Student-Taught Courses (2)

## Total units

Students must complete LIBS 302 before they will be allowed to take a seminar (LIBS 320). In consultation with an advisor, students select interdisciplinary core seminars and other courses offered in the major, and then complete LIBS 403 during their final semester, examining the student's major field of study in relation to other disciplinary perspectives.

## Degree Completion Program

The Liberal Studies Degree Completion Program is for those who have completed junior transfer requirements. It offers an alternative route to a bachelor of arts degree for working adults whose schedules do not permit them to attend regular campus classes. Instruction is organized around one on-campus meeting for a full Saturday each month combined with weekly online seminars and ongoing reading and writing assignments.

Course work in the program is designed to investigate current issues and to allow students to explore their own interests.

## Requirements for the Major

LIBS 380 Identity and Society 10
LIBS 381 Technology and the Environment 10
LIBS 382 Work and the Global Future 10
LIBS 470 Senior Project (independent study) 10
General education courses and electives may be required in addition to transfer units to complete University graduation requirements.

Students stay with their cohort throughout the program as different professors guide the seminars each semester. For individual preadmissions counseling, call Beth Warner, Administrative Coordinator, at (707) 664-3977, e-mail beth.warner@sonoma.edu. website: www.sonoma.edu/exed under "Our Programs."

## M.A. Program in Interdisciplinary Studies (Action for a Viable Future)

As people become aware of the magnitude of dilemmas and issues in the world they inhabit, they often express the desire and need to
go beyond studying these problems; they want to know what they can do about them. This program is a response to that question.

We emphasize the interrelationship among three themes: the psychological and moral dimensions of change; economic, and social justice issues; and ecological issues. These three are inextricably linked: economic practices and concerns about social justice must involve considerations of environmental sustainability, and changes in the environmental and economic spheres necessarily imply personal change. All must be understood on a global scale.

This program provides a framework for understanding the roots of contemporary problems and the processes of change, within which each student chooses courses across the University that illuminate their area of interest. For their culminating experience, students will choose an issue that inspires them to create and execute an action plan to make an impact on the community.

For further information, contact Beth Warner, Administrative Coordinator, at (707) 664-3977, e-mail beth.warner@sonoma.edu. website: www.sonoma.edu/exed under "Our Programs."

## Requirements for Admission

1. Bachelor's degree from an accredited institution;
2. Grade point average of 2.50 or above for the last 60 units of coursework;
3. A personal narrative describing your goals and three letters of recommendation;
4. Completion of an application to the program;
5. Satisfactory participation in a seminar interview; and
6. Favorable recommendation by the departmental graduate studies coordinator.

## Requirements for the M.A.

1. Advancement to candidacy form signed and submitted to Graduate Studies Office;
2. With the approval of the student's committee chair and the graduate advisor, a maximum of 9 units of transfer credit may be included as part of the student's specific pattern of study. All courses are to be taken for a letter grade. Students must maintain a GPA of 3.00 or above in all courses to be counted toward the degree;
3. All requirements for the M.A. degree in Interdisciplinary Studies stipulated at the time of admission to candidacy must be satisfactorily completed within 7 years from the time the first course is completed. A completion of requirements form must be signed and submitted to the Graduate Studies Office; and
4. Completion of required coursework as outlined below:

ITDS 510A Critical Inquiry: A Preparation for Action and Change
ITDS 510B Case Study
ITDS 599 Project Planning and Implementation
Project Preparation courses

Total units required for the M.A.

## INTERDISCIPLINARY STUDIES

DEPARTMENT OFFICE
Physical Education 25
(707) 664-3918
www.sonoma.edu/itds

## COORDINATOR

Ellen Carlton
email: ellen.carlton@sonoma.edu

## Programs Offered

Bachelor of Arts in the Special Major
Bachelor of Science in the Special Major
Special Minor in Interdisciplinary Studies
Master of Arts in Interdisciplinary Studies
Master of Science in Interdisciplinary Studies

Students interested in designing an interdisciplinary program can pursue a bachelor's degree in the special major and a master's degree in interdisciplinary studies. The undergraduate special major and the graduate major in interdisciplinary studies are designed for students whose particular interests, backgrounds, or professional objectives are not served by a traditional degree program. The purpose of these majors is to provide a carefully controlled opportunity for qualified students to design, with faculty approval, a flexible interdisciplinary course of study that leads to a bachelor's or master's degree. Admission is limited to those whose individualized programs can be organized around a special topic or a crossdisciplinary inquiry that is original and involves work in more than one department. Interested students should contact the coordinator of interdisciplinary studies (ITDS), who initiates the application and screening process.

The special and interdisciplinary studies majors are not intended to bypass normal graduation requirements and may not be used to duplicate formally structured programs at Sonoma State University or other service-area institutions. The reason for this restriction is that these programs should be reserved for students whose special interests cross disciplinary lines and who find appropriate faculty expertise here.

## Application requirements for all programs

1. All students must apply for admission to the special major or the major in interdisciplinary studies. Before developing a program proposal, the student must consult with the interdisciplinary studies coordinator, who will initiate the application and screening process and will help identify faculty advisors to serve as an academic advisory committee.
2. There must be at least two faculty members for the special major and three faculty members for the major in interdisciplinary studies who agree to constitute the advisory commit-
tee and act as advisors for each student's program of study. It is the student's responsibility to contact these advisors to plan with them a coherent, original, and feasible course of study. One committee member must agree to be the committee's chair and to be the student's principal advisor on matters related to the major course of study and all other graduation requirements.
3. In consultation with the ITDS coordinator and the academic advisory committee, each student must complete a program proposal and submit it in duplicate to the ITDS coordinator by an application deadline. There are three proposal deadlines each semester.
4. Filing a proposal application with the ITDS coordinator does not ensure acceptance in the special major or interdisciplinary studies program. Each proposal must be evaluated by the ITDS committee. The committee may recommend approval or conditional approval of the application, may request that the application be reworked and resubmitted, or may reject the application. Approved programs must then be approved by the Associate Vice Provost of Academic Programs. If the application is approved at both levels of review, the student may register as a special major or as a major in interdisciplinary studies.

## Bachelor of Arts or Science in the Special Major

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements (core and supporting) | 45 |
| General electives | 24 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Requirements for the Special Major

A 3.00 grade point average is a prerequisite to application. The special major is a unique major that suits individual goals and is personally valuable, but may pose professional obstacles. Career goals and prerequisites for higher degrees should be reviewed before proceeding with this major.

The special major consists of 45 units of course work in two or more disciplines; 24-26 upper-division units constitute the core courses, while the remaining units may include lower-division courses.

To be considered for the special major, the student must have more than one full year ( 31 units or more) of course work in the major still to be completed after approval by the ITDS committee and the filing of the Change of Major form. Work in progress during the semester of the proposal's approval will count toward the 31 units.

Contact the ITDS coordinator for the detailed guidelines and the application form for the special major. At the time you apply for a special major, you should have completed at least half of your GE requirements and should be in your junior year.

## Special Minor in Interdisciplinary Studies

The special minor has the following features and requirements:

1. The minor consists of 21-24 units of coursework from two or more departments;
2. Two-thirds of these units must be in upper-division course work;
3. Two-thirds of the minor must remain to be completed at the time the minor is approved. Work in progress during the semester of the minor's approval counts toward the two-thirds requirement;
4. The student must have a minimum GPA of 3.00 in order to apply;
5. A student will not be considered for a special minor before the student's junior year; and
6. A special minor must have the same coherence and academic integrity as are demanded of a special major and is subject to the same application process.

Contact the ITDS coordinator for the detailed guidelines and the application form for the special minor.

## Master of Arts or Science in Interdisciplinary Studies

| Degree Requirements | Units |
| :--- | ---: |
| Major requirements | $30-32$ |
| Total units needed for graduation | $30-32$ |

## Requirements for the M.A. or M.S. in Interdisciplinary

## Studies

## Prerequisites to Application

- Admission to the University in conditionally classified graduate status; and
- A grade point average of at least 3.00 for the last 60 units of college work attempted.


## Prerequisite to Acceptance

- Passage of the Written English Proficiency Test (WEPT). Graduate Record Examination (GRE) Aptitude Test scores are not required, but may be submitted in support of the application; and
- The candidate for this degree must comply with the normal regulations governing graduate study at Sonoma State as described in this catalog.


## Course Requirements

General course and unit requirements:

- The master's in interdisciplinary studies consists of a minimum of 30 units to a maximum of 32 units in two or more disciplines.
- At least 20 units must be graded (A-F); the remainder (up to one-third of the total number of units of the major) may be taken in a nontraditional grading mode. (In order to receive a

Credit (Cr) grade in a graduate level class, the student must earn the equivalent of $B$ - or better.)

- The student must have at least 15 units of the major still to be completed after approval of the proposal by the Associate Vice Provost of Academic Programs. Units completed during the semester of the proposal's approval count toward these 15 units.
- At least 21 semester units shall be completed in residence.
- At least 15 of the 21 in-residence units shall be in graduate (500-level) courses. The remaining units may be in 300- or 400-level courses.

Contact the ITDS coordinator for the detailed guidelines and the application form for the master's degree in interdisciplinary studies.

## JEWISH STUDIES

## PROGRAM COORDINATOR

Michael Ezra/AMCS Department (707) 664-3293, ezra@sonoma.edu

## ADVISORS

Michael Ezra/AMCS Department (707) 664-3293, ezra@sonoma.edu Myrna Goodman/Sociology Department (707) 664-4296, myrna.goodman@sonoma.edu

## Minor in Jewish Studies

The Minor in Jewish Studies offers students from any major on the SSU campus a cross-disciplinary concentration in the study of Jewish religion, culture, and people. Jewish Studies is by its very nature an interdisciplinary field of study, blending courses from a wide range of academic disciplines and perspectives. For a minor in Jewish studies, students must take two core courses and fourteen additional elective units of courses from at least two different areas of study.

| Minor Core Requirements | Units |
| :--- | ---: |
| JWST 200 Introduction to Jewish Studies | 3 |
| JWST 350 Jewish Religion and Biblical Values | 3 |
| Total units in the minor core | 6 |
| Elective units in the minor | 14 |
| Total units in the minor | 20 |

## Minor Electives

In addition to the core, choose 14 units of electives from other Jewish Studies courses in at least two of the following areas of study: 1) religion, philosophy, values; 2) language; 3) history; 4) culture and society. All SSU majors may select the minor in Jewish Studies. Additional courses may be counted toward the minor with approval of the Jewish Studies program coordinator. Courses not designated for a particular area of study will be assigned an area of study by the program coordinator based on the course content. Cross-listed courses listed below without the JWST designation will count for the Jewish Studies minor pending approval of the Jewish Studies program coordinator.

## Course Offerings and Areas of Study

## 1) Religion, Philosophy, and Values Units

AMCS 481 Religion and Spirituality
JWST 250 Introduction to Judaism
JWST 251 Topics in Jewish Biblical Studies
JWST 351 Topics in Jewish Religion
JWST 352 Topics in Jewish Thought
JWST 391 Topics in Comparative Religion
PHIL 295 Studies in Modern Philosophy
PHIL 335 Religion, Spirituality, and Social Justice
PHIL 350 Topics in Moral Philosophy
PHIL 390 Advanced Topics in Philosophy
SOCI 431 Sociology of Religion
2) Language ..... Units
JWST 101 Elementary Modern Hebrew I ..... 3-4
JWST 102 Elementary Modern Hebrew II ..... 4
JWST 201 Intermediate Hebrew I ..... 4
JWST 202 Intermediate Hebrew II ..... 4
JWST 301 Topics in Advanced Hebrew ..... 4
HIST 487 Introduction to Egyptian Language and Culture ..... 4
LING 432 Language in Sociopolitical Context ..... 4
3) History ..... Units
JWST 241 Jewish History I ..... 4
JWST 242 Jewish History II ..... 4
JWST 341 Topics in Jewish History ..... 4
JWST 342 The Jewish Diaspora ..... 4
AMCS 370 Topics in Ethnic/Multicultural Studies ..... 4
HIST 303 The Ancient Near Eastern Texts ..... 4
HIST 304 History of the Arabs to 1453 ..... 4
HIST 349 Historical Themes ..... 2-4
HIST 371 Tolerance and Intolerance in Europe ..... 2-4
HIST 375 Special Topics and Themes in American History ..... 1-4
HIST 469 Religion in America ..... 4
HIST 482 Judaism and Christianity in the Formative Period ..... 4
4) Culture and Society ..... Units
JWST 330 American Jewish Experience ..... 4
JWST 360 Jewish Literature ..... 3
JWST 361 Topics in Jewish Literature ..... 4
JWST 381 Topics in Jewish Art, Film, Music, Culture, and Society ..... 3-4
JWST 421 Topics in Israeli Art, Film, Music, Culture, and Society ..... 3-4
AMCS 330 Multicultural History of the United States ..... 4
AMCS 470 Advanced Studies in Ethnic Culture ..... 4
ANTH 358 Topics in Sociocultural Anthropology ..... 4
ARTH 461 Selected Topics in Film ..... 3
ARTH 474 Islamic Art ..... 3-4
ARTH 480 Selected Topics in Art History ..... 1-4
ENGL 472 Studies in the Novel ..... 4
ENGL 482 Studies in American Literature: Jewish Literature-Home and Exile ..... 4
ENGL 483 Individual Authors: American ..... 4
GEOG 396 Special Topics in Area Studies: Middle East ..... 4
MUS 343 Studies in Musical Genres: Yiddish Musical Theater ..... 3
MUS 370 Music and Dance in the World's Religions ..... 3
POLS 446 International Relations of the Middle East: Israel, Palestine, United States ..... 4
POLS 486 Selected Issues in International Politics ..... 3
SOCI 305 Perspectives on the Holocaust and Genocide THAR 430 Special Topics ..... 1-3
WGS 311 Special Topics in Women and Gender Studies ..... 1-4
Other courses with area to be designated based on course content ..... Units
JWST 331 Topics in Jewish American Studies ..... 3-4
JWST 371 Topics in Jewish Studies ..... 3-4
JWST 431 Advanced Topics in Jewish American Studies ..... 4
ITDS 297 Selected Topics ..... 1-4
ITDS 397 Selected Topics ..... 1-4

## KINESIOLOGY

DEPARTMENT OFFICE
PE14
(707) 664-2357
www.sonoma.edu/kinesiology
DEPARTMENT CHAIR
Elaine McHugh
DEPARTMENT COORDINATOR
Gina Voight
EQUIPMENT TECHNICIAN
Gloria Allen

## Faculty

Wanda Boda
Rebecca Bryan
Ellen Carlton
Elaine McHugh
Lauren Morimoto
Steven V. Winter

## Programs Offered

## Bachelor of Science in Kinesiology

Master of Arts in Kinesiology
Minor in Kinesiology
Single Subject Teaching Credential Preparation
Adapted Physical Education Specialist Credential
Preparation
Integrated Degree and Credential Program
Kinesiology, as the study of human movement, utilizes a comprehensive and integrative approach to examine phenomena related to all aspects of physical activity. The curriculum offered by the Department of Kinesiology prepares graduates who can apply kinesiological principles to the acquisition, performance, and refinement of motor skills and to the use of physical activity as an educative tool and a medium for health promotion, personal well-being, and participation in an active lifestyle. The curriculum addresses human movement across the life span from biological/physical, behavioral, sociocultural, and humanistic perspectives, with attention given to the unique and common needs of all people in a wide variety of contexts and conditions.

In conjunction with the broader educational mission of the University, the kinesiology major program prepares students to lead and participate in a modern complex society and to assume multiple roles throughout their lifetimes. Graduates have acquired knowledge and experiences that prepare them to pursue lifelong learning, advanced study, and/or careers in such areas as teaching, coaching,
adapted physical education, allied health fields, health and fitness industries, sport industries, or exercise and movement science. To achieve this mission the kinesiology major provides students with a well-structured set of curricular and cocurricular experiences and the mentorship to derive a sound education from the University experience.

The Department of Kinesiology programs lead to the B.S. or M.A. degrees. In both programs a core of courses is required. Beyond this core, the kinesiology student chooses a concentration of courses with a specific focus. The undergraduate may select physical education, adapted physical education, exercise science, lifetime fitness, or interdisciplinary studies in kinesiology. Theoretical and practical learning experiences are an important part of all concentrations. Students are required to participate in a variety of field experiences, working as coaching assistants, teacher's aides, exercise/recreation leaders, and instructors for disabled students.

Prior to beginning upper-division studies in Kinesiology, students should have acquired the knowledge and skills necessary for success. Courses with specific application to the kinesiology degree are included as support courses for the major. All students entering the upper-division kinesiology degree should

- Be able to utilize computing technology in support of inquiry;
- Demonstrate knowledge of a broad range of concepts, issues, facts, and theories derived from the biological, physical, behavioral, social sciences, and from the humanities;
- Demonstrate critical thinking, writing, reading, oral communication, quantitative and qualitative analysis, and information management skills; and
- Document experience in a variety of movement forms and fitness activities.

At the completion of the undergraduate degree all graduates should

- Demonstrate knowledge and skill in a broad variety of movement and fitness activities;
- Understand the biological/physical and behavioral bases of movement and the changes that occur across the life span, within diverse populations, and under a variety of environmental conditions;
- Understand the sociocultural and humanistic bases of movement with diverse cultures, historical periods, and social settings;
- Understand how motor skills are acquired and fitness achieved and maintained across the life span and within diverse populations;
- Understand the relationship among movement, conditioning and training, well-being, and skill across the life span and under a variety of environmental and personally unique conditions;
- Know how to apply kinesiological knowledge to enhance motor skill and fitness with a variety of populations and conditions;
- Apply critical thinking, writing, reading, oral communication, quantitative and qualitative analysis, and information management skills to movement-related questions;
- Demonstrate knowledge of the conditions of safe practice in movement-related contexts across the life span and within diverse populations, and respond appropriately to common injuries occurring during physical activity;
- Be able to use and apply kinesiological data collection techniques and measurement theory to assess, analyze, and evaluate human performance;
- Understand the scientific method and other systematic ways of knowing relative to research and scholarship in human movement;
- Demonstrate ability to integrate multidisciplinary knowledge bases of kinesiology in an applied, problem-solving context;
- Be familiar with standards, ethics, and expectations of professional communities related to human movement;
- Be prepared to engage in professionally related community activities;
- Be prepared to engage in informed dialogue with diverse professional and lay communities regarding kinesiological principles and practices; and
- Demonstrate additional in-depth knowledge and skills associated with study in any one of the concentrations, specializations, or emphases that are associated with kinesiology degrees.


## Bachelor of Science in Kinesiology

All majors in the Department of Kinesiology must complete the support courses and the major core courses. Each major selects a concentration in which to complete the major.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | $50-52$ |
| Support courses (maximum outside GE) | 18 |
| General electives | $3-5$ |
| Total units needed for graduation | $\mathbf{1 2 4}$ |

All courses fulfilling either major or minor requirements in kinesiology must be graded A-F, except for courses not available in the A-F mode or courses that are challenged.

## Support Courses for the Bachelor of Science

These courses may be taken at a community college, and some may be used to fulfill general education requirements. Some of these courses are prerequisites to courses in the major. The SSU equivalent is listed in parentheses.

Human Anatomy (BIOL 220)* 4
Human Physiology (BIOL 224)* 4
Nutrition 3
Introduction to Computing (CS 101)* ${ }^{\star}+3$
Foundations of Kinesiology (KIN 201) 3
Total supporting units

* GE courses
+ Students in physical education concentration may take KIN 307 instead.


## Major Core Requirements (all concentrations)

KIN 301 Philosophy/History of Human Movement 4
KIN 305 Psychological Bases of Human Movement 4
KIN 315 Sociology of Sport 3
KIN 330A Measurement and Evaluation or MATH 165 (4) 1
KIN 350 Biomechanics 4
KIN 360 Physiology of Exercise 4
KIN 410 Life Span Motor Development 3
KIN 460 Conditioning for Health and Performance 3
Total units in the major core
26-29

## Sample Four-year Program for Bachelor of Science in Kinesiology, Exercise Science Concentration

## LOWER-DIVISION PREPARATION

FRESHMAN YEAR:: 32 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :---: | :---: |
| GE (B2) BIOL 110 (4) | Chem 115A (B1) (5) |
| GE (C1) (3) | GE (A3) (3) |
| CS 101 (3) | GE (B4) (MATH 165/161) (4) |
| GE (A2) (3) | GE (D2) (3) |
| GE (D4) (3) |  |
| SOPHOMORE YEAR:: 29 Units |  |
| Fall Semester (15 Units) | Spring Semester (17 Units) |
| GE (A1) (3) | GE (D5) (3) |
| BIOL 220 (B3) (4) | GE (C4) (3) |
| CHEM 115B (5) | GE (D3) (3) |
| BIOL 307 (3) | BIO 224 (4) |
|  | PHYS 209A/210A (4) |
| UPPER-DIVISION SPECIALIZATION |  |
| JUNIOR YEAR:: 30 Units |  |
| Fall Semester (17 Units) | Spring Semester (16 Units) |
| KIN 340/342 (3) | KIN 360 (4) |
| KIN 301 (4) | KIN 315 (3) |
| GE (C2) (3) | GE UD (C3) (3) |
| GE UD (D1) (3) | KIN 410 (3) |
| PHYS 209B/210B (4) |  |

SENIOR YEAR:: 33 Units

| Fall Semester (17 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| KIN $305(4)$ | GE UD (E) (3) |
| KIN 350 (4) | KIN 460 (3) |
| Elective (3) | Nutrition (3) |
| Elective (3) | KIN 430D (3) |
| KIN 410 (3) | PSY 425 (4) |

## Sample Four-year Program for Bachelor of Science in Kinesiology

Physical Education, Adapted Physical Education, Lifetime Fitness Concentrations

LOWER-DIVISION PREPARATION

FRESHMAN YEAR:: 32 Units

| Fall Semester (17 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| GE (A2) (3) | CHEM $105 / 115(3)$ |
| GE (B2) BIOL 115 (3) | GE (A3) (3) |
| GE (B4) (4) | GE (C4) (3) |
| CS 101 (3) | GE (D2) (3) |
| GE (B1) (4) | GE (C2) (3) |

SOPHOMORE YEAR:: 31-32 Units

| Fall Semester (16 Units) | Spring Semester (14-16 Units) |
| :---: | :---: |
| GE (A1) (3) | GE (D5) (3) |
| GE (D3) (3) | Biol 224 (4) |
| Biol 220 (B3) (4) | GE (C1) (3) |
| GE (D4) (3) | KIN 201 (3) |
| Elective (3) | PE: KIN 300 Aquatics (1) |
|  | APE: KIN 325 (3) |
|  | LF: KIN 342 (3) |
| UPPER-DIVISION SPECIALIZATION |  |
| JUNIOR YEAR:: 33 Units |  |

Fall Semester (17 Units) Spring Semester (16 Units)
KIN 330A (1) KIN 360 (4)
KIN 301 (4) KIN 410 (3)

KIN 315 (3)
GE UD (D1) (3)
SENIOR YEAR:: 29 Units
Fall Semester (15 Units)
Spring Semester (14 Units)
KIN 305 (4)
GE UD (E) (3)

## Physical Therapy Program Prerequisites

| Courses | SSU Course | UCSF | Samuel <br> Merritt | UOP | Chapman | West Univ. of H.S. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General Physics | PHYS 209AB/210AB | R-8 | R-8 | R-8 | R-8 | R-8 |
| General Chemistry | CHEM 115AB/116AB | R-10 | R-8 | R-8 | F-8 | F-8 |
| Organic Chemistry | CHEM 335A | r-3 |  |  |  |  |
| H. Anatomy w/lab | BIOL 220 | R-3 | R-4 | R-4 | R-4 | R-4 |
| H. Physiology | BIOL 224 |  | R-4 | R-4 | R-4 | R-4 |
| Bio Elective | BIOL 307, 318 |  | R-3 | R-4 | R-6 |  |
| Microbiology/Cell Biology | BIOL 218/344 | R-4 |  | R-4 |  |  |
| Neuro Anatomy | PSY 451 | r-4 |  |  |  |  |
| Ab Psych/Psych Dis | PSY 425/438 | R-3 |  |  |  |  |
| General Psych | PSY 250, 302 |  | R-3 |  |  |  |
| Psych Elective |  |  | R-3 | R-3 | R-6 |  |
| Sociology Elective |  |  | R-3 |  |  |  |
| Biomechanics | KIN 350 | R-3 | R-3 |  |  |  |
| Exercise Physiology | KIN 360 | r-3 | R-3 |  |  |  |
| Motor Learning/ |  |  |  |  |  |  |
| Motor Development | KIN 305/410 | r-3 |  |  |  |  |
| Statistics | MATH 165 | R-3 | R-3 |  | R-4 | R-4 |
| English Composition | ENGL 101 | r-3 |  | R-3 |  |  |
| Written/Oral Comm | HUM 200/ENGL 201 |  | R-3 |  |  |  |
| Field Experience | KIN 430D | R-150 | R |  |  |  |
| GRE | R 1500/500R 1700/540 |  |  |  |  |  |
| $R=$ REQUIRED, $r=$ recommended |  |  |  |  |  |  |


| KIN 350 (4) | KIN 460 (3) |
| :---: | :---: |
| GE UD (C3) (3) | Nutrition (3) |
| BIOL 307 (3 |  |
| In addition to the upper-division specialization, choose one of the following options: |  |
| - Physical Education - |  |
| JUNIOR YEAR:: 33 Units |  |
| Fall Semester (17 Units) | Spring Semester (16 Units) |
| KIN 400 (3) | KIN 325 (3) |
| KIN 300 (2) | KIN 300 (1) |
| KIN 307 (3) | KIN 342 (3) |
| KIN 320 (3) |  |
| SENIOR YEAR:: 29 Units |  |
| Fall Semester (15 Units) | Spring Semester (14 Units) |
| KIN 300 (2) | KIN 300 (1) |
| KIN 404 (2) | KIN 430 (1) |
|  | Combatives |
| SUMMER SESSION OPTIONS |  |
| KIN 307 (3) |  |
| KIN 400 (3) |  |
| KIN 410 (3) |  |
| - Adapted Physical Education - |  |
| JUNIOR YEAR:: 33 Units |  |
| Fall Semester (17 Units) | Spring Semester (16 Units) |
| Elective (3) | KIN 340/342 (3) |
| KIN 426 (4) | KIN 300 Aquatics (1) |
| Elective (3) | KIN 427 (3) |
| SENIOR YEAR:: 29 Units |  |
| Fall Semester (17 Units) | Spring Semester (14 Units) |
| EDSP 433 (3) | KIN 430C (1) |
| KIN 425 (3) | Elective (3-4) |
| KIN 430C (1) |  |
| - Lifetime Fitness - |  |
| JUNIOR YEAR:: 33 Units |  |
| Fall Semester (17 Units) | Spring Semester (16 Units) |
| KIN 426 (4) | KIN 340 (3) |
| LTF Elective (3) | KIN 442 (4) |
| SENIOR YEAR:: 29 Units |  |
| Fall Semester (15 Units) | Spring Semester (16 Units) |
| NURS 473 (3) | KIN 430E (3) |
| LTF Elective (3) | KIN 446 (3) |

Major Concentrations

Choose one of the required concentrations below to complete the major:
I. Adapted Physical Education Concentration (25-26)
II. Physical Education Concentration (26)
III. Exercise Science Concentration (24-26)
IV. Lifetime Fitness Concentration (25-28)
V. Interdisciplinary Concentration (24)

Total units in a concentration 24-28
Total units in the major 50-52

Specific content of concentrations is detailed below.

## Specific Content of Concentrations

Several options are available to a student advancing toward a specific goal in the degree program. A student may select a pattern of courses in any one of the following concentrations.

## I. Adapted Physical Education Concentration

After completing the bachelor's degree, students may pursue career opportunities in private or public agencies. In combination with the physical education concentration (Single Subject Credential), a student may meet the requirements for the specialist credential in adapted physical education.
EDSP 433 Teaching Adolescents with Special Education Needs ..... 3
KIN 340/342 Emergency Response/Principles of Musculoskeletal Injuries ..... 3
KIN 300 Aquatics ..... 1
KIN 325 Introduction to Adapted Physical Education ..... 3
KIN 425 Seminar in Adapted PE ..... 3
KIN 426 Individualized Assessment and Program Design ..... 4
KIN 427 Individuals with Disabilities in Educational/Recreational Setting ..... 3
KIN 430 C Field Experience ..... 2
Additional approved elective ..... 3-4
Total units in the concentration ..... 25-26
Total units in the B.S. ..... 51-52

## II. Physical Education Concentration

The Kinesiology Department offers a Subject Matter Program in Physical Education. Students who are interested in teaching physical education and coaching in the schools may select this option. Completion of the program certifies the subject matter competence required for entry into a teaching credential program in physical education and exempts the student from taking the Praxis II Subject Assessment Examination. Kinesiology majors interested in seeking a general elementary credential may demonstrate subject matter competence
by passing the Praxis II Multiple Subject Assessment for Teachers. For further information, contact the department office.

| KIN 300 Analysis of Motor Performance: Aquatics | 1 |  |  |
| :--- | ---: | :---: | :---: |
| Skills and Fitness Performance | 1 |  |  |
| Dance and Rhythms | 1 |  |  |
| Educational Gymnastics | 1 |  |  |
| Racquet Sports | 1 |  |  |
| Team Sports | 1 |  |  |
| Contemporary Activities | 1 |  |  |
| KIN 101 Combatives | 1 |  |  |
| KIN 307 Computer Applications in Physical Education | 3 |  |  |
| KIN 320 Curriculum, Pedagogy, and Assessment | 3 |  |  |
| KIN 325 Introduction to Adapted Physical Education | 3 |  |  |
| KIN 342 Principles of Musculoskeletal Injuries | 3 |  |  |
| KIN 400 Elementary School Physical Education | 3 |  |  |
| KIN 404 Theory of Coaching | 2 |  |  |
| KIN 430 Field Experience | 1 |  |  |
| Total units in the concentration |  |  | 26 |
| Total units in the major | 52 |  |  |

For information on credentials and professional education requirements, please see the Education section in this catalog, which describes programs in education, and also the University's special bulletin on Programs in Teacher Education.

## Integrated Degree and Credential Program

Students in their freshmen year who are interested in becoming public school physical education teachers can enroll in a program of study that integrates a B.S. in kinesiology with a concentration in physical education, with the requirements necessary to obtain a teaching credential. This plan of study merges the degree and credential courses, subsequently exposing students to public school teaching experiences from their freshman through senior years. In addition, if students follow the designed advising plan, they have the potential of completing their course of study in less time than if the degree and credential programs were taken back to back. This program may necessitate students taking one or two summer school sessions.

FRESHMAN YEAR:: 31 Units

| Fall Semester (15 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| GE (B1) (3-4) | POLS 200 (D4) (3) |
| ENGL 101 (A2) (3) | GE (D2) (3) |
| Foreign Language (C4) (3) (if needed) | PHIL 101 or 102 (A3) (3) |
| MATH 165 (B2) (4) | BIOL 115 w/out lab (B2) (3) |
| KIN 120 (2) | KIN 101 (1) |
|  | Combatives |
|  | GE (C3) (3) |


| SOPHOMORE YEAR:: 32 Units |  |
| :---: | :---: |
| Fall Semester (17 Units) | Spring Semester (15 Units) |
| BIOL 220 (B3) (4) | KIN 300 (2) |
| KIN 300 (1) | KIN 315 (3) |
| KIN 320 (3) | KIN 342 (3) |
| GE (A1, C2, D3) (9) | BIOL 224 (B3) (4) |
| Have taken CBEST. | GE (C3, D5) (3) |
| Apply to Single-Subject Cr |  |
| SUMMER SESSION:: 9 Units |  |
| EDUC 417 (3) |  |
| Foreign Language (if needed) (3) |  |
| KIN 307 (3) |  |
| JUNIOR YEAR:: 34 Units |  |
| Fall Semester (18 Units) | Spring Semester (16 Units) |
| KIN 301 (4) | KIN 300 (2) |
| KIN 300 (1) | KIN 325 (3) |
| KIN 350 (4) | KIN 360 (4) |
| KIN 410 (3) | Nutrition (3) |
| GE (C1, E) (6) | EDSS 442 (4) |
| SUMMER SESSION:: 9 Units |  |
| KIN 400 (3) |  |
| EDSS 418 (3) |  |
| EDSP 433 (3) |  |
| SENIOR YEAR:: 35 Units |  |
| Fall Semester (18 Units) | Spring Semester (17 Units) |
| KIN 300 (1) | EDSS 458 (12) |
| KIN 305 (4) | EDSS 459 (3) |
| KIN 460 (3) | KIN 404 (2) |
| EDSS 443A (1) |  |
| EDSS 443B (2) |  |
| EDSS 444 (3) |  |
| EDSS 446 (4) |  |

## III. Exercise Science Concentration

Students who have an interest in biomechanics or pre-physical therapy may select this concentration. It contains lower-division and upper-division courses beyond the core required of all majors and a set of courses specific to the subspecialty within the concentration.

## Lower-Division Exercise Science Core

CHEM 115AB/116AB General Chemistry* $8^{* *}$
PHYS 209/210 General Physics* $4^{\star \star}$
Upper-Division Exercise Science Core
KIN 340/342 Emergency Response or Principles of Musculoskeletal Injuries 3
KIN 430/495 Field Experience/Special Studies 3
PSY 425 Abnormal Behavior 4
BIOL Elective related to physical therapy 4

## Total in the Exercise Science Concentration

Total units in the major

* GE courses.
** Students planning to enter a master's degree program in physical therapy may need to take additional units or courses to satisfy admission requirements to the programs. Check with the academic schools to which you plan to apply for specific requirements.


## IV. Lifetime Fitness Concentration

Prepares individuals for careers in the allied fields of fitness, health, and wellness. Those who work with exercise must have an understanding of intra- and interpersonal aspects of exercise adherence, as well as knowledge of the structure and function of the human body. They must know exercise physiology and the mechanics of human motion; and they must possess skills in planning and carrying out appropriate exercise programs and treatment regimes for the healthy individual who desires lifetime fitness goals, as well as for the individual with unique needs due to a developmental concern or musculoskeletal injury. This concentration incorporates coursework in exercise history, philosophy, sociology, and psychology; exercise physiology and biomechanics of movement; adapted physical education and emergency / sports medicine; and health education, while providing opportunities for internships \& field experiences.
KIN 340 Emergency Response
KIN 342 Principles of Musculoskeletal Injuries
KIN 426 Individualized Assessment and Program Design
KIN 430/495 Field Experience/Internship
KIN 442 Musculoskeletal Evaluation, Training, and Treatment
KIN 446 Exercise Instruction
Electives * Choose a minimum of 2 courses (below)
KIN 404 Theory of Coaching
KIN 427 Individuals with Disabilities in Education and Recreation
BIO 318 Biology of Aging
BUS 150 Business and Society
GERN 300 Basic Gerontology
NURS 473 Health Education and Drug Abuse
PSY 201 Human Potential
PSY 408 Transitions in Adult Development
PSY 421 Psychology of Aging
SOC 317 Emotions and Adult Life
Total units in the concentration
Total units in the major

* GE courses


## V. Interdisciplinary Concentration

In consultation with their advisors, students design a concentrated course of study or special emphasis track in preparation for a career goal. The concentration must be distinctly different from Kinesiology concentrations already offered. Areas of emphasis may include preOccupational Therapy and others.

Students, in consultation with their Kinesiology Interdisciplinary advisor, shall define and describe in writing the specific theme they would like their Interdisciplinary Concentration to be in and select a minimum
of 24 units of coursework to fulfill program requirements. Courses in kinesiology and those offered by other departments are appropriate and may be applied to this track. A minimum of 3 units, and not more than 6 units, in Field Experience (KIN 430) and/or Special Studies (KIN 495) must be taken. The proposed study list must be signed by the student and advisor and submitted to the department chair for approval. A copy of the signed, approved study list is placed in the student's advising folder.

## Total units in the concentration

25-28
Total units in the major
51-54

## Careers

## Lifetime Fitness

The Lifetime Fitness concentration prepares students for admittance into professional degree programs

- Athletic Trainer
- Others

Careers or certifications that require a baccalaureate degree

- Strength and Conditioning Specialist
- Certified Personal Trainer
- Health Fitness Instructor
- Exercise Specialist


## Physical Education

- Teaching middle school and high school (B.S. degree leads into the Single Subject Credential Program which certifies graduates to teach in public schools).
- Coaching in public schools and at the collegiate level.
- Graduate Programs in
- Physical Education (M.A., M.Sc.)
- Adapted Physical Education
- Curriculum and Instruction
- Education Administration
- Teach/coach at a community college (M.A. required).


## Adapted Physical Education - Physical Education For Individuals With Disabilities

- Work in public schools, community recreation centers, hospitals and other clinical settings, junior colleges, colleges, and universities;
- Work with infants, children, and adults with all kinds of disabilities;
- Teach adapted physical education to students and also mentor classroom and general physical education teachers (requires Single Subject Credential); and
- Graduate Programs in
- Adapted physical education
- Special education


## Students planning to apply to a graduate program in physical therapy

Completing the Kinesiology degree with the Exercise Science concentration, pre-physical therapy option, will satisfy many of the course requirements (or recommendations) which are prerequisites for admission to a physical therapy program. While there are similarities across physical therapy programs, there are also differences from one graduate program to another. Students are urged to contact personally any graduate school they may wish to consider and request admission requirements. Information can be obtained from the American Physical Therapy Associate website: http://www. apta.org.

No single list of prerequisites can be totally complete and accurate. The list on the previous page summarizes current requirements for some programs in California, and the requirements are similar to other programs. It is suggested that you use the attached list as general guidelines until a specific school or schools are selected.

## Additional Considerations

- Plan on a minimum of two years beyond the bachelor's degree to complete a physical therapy program. Actual time varies by program.
- Find out if the Graduate Record Examination (GRE) is required and what minimum score is accepted.
- Strengthen your oral and written communication skills.
- Apply to several programs.
- Usually a 3.0 GPA is required; however, many schools actually use a 3.3 or higher GPA.
- Get extensive field experience, have excellent letters of recommendation, prepare a strong portfolio, and be prepared for a good interview.
- Some programs may not take less than a "B" in a prerequisite course; some will not accept a repeat grade if the original grade was a "C" or better.
- Many programs require that prerequisites be taken in the last 5-10 years; this varies from school to school.
- DO NOT take prerequisite courses for $\mathrm{Cr} / \mathrm{NC}$.
- Take elective courses in related fields, especially the biological sciences.
- Talk to physical therapists and other pre-pt students, and be active in the pre-health professions clubs on campus.


## Minor in Kinesiology

Students majoring in other disciplines may complete a minor in kinesiology to further their career goals. The minor requires a minimum of 22 units and includes a core of 12 to 13 units (required of all students) and a minimum of 9 to 10 units of electives. The minor in kinesiology may be desirable for credential candidates pursuing
a second teaching area or a career in coaching; for management students entering sport/fitness businesses; for those involved in outdoor recreation programs; for students in performing arts desiring a physical education/dance background. Students pursuing a kinesiology minor must consult with a departmental advisor for program requirements. A copy of a signed approved study list is placed in the student's advising folder.

## Minor Core Requirements

KIN 201 Foundations of Kinesiology

## Choose one course from the following:

KIN 301 History and Philosophy of Human Movement (4) or KIN 315 Sociology of Sport or
KIN 410 Lifespan Motor Development

## Choose two courses from the following:

KIN 305 Psychological Bases of Human Movement 4
KIN 350 Biomechanics 4
[ Prerequisite BIOL 220, Human Anatomy (4)]
KIN 360 Physiology of Exercise
4
[ Prerequisites CHEM 115A, General Chemistry (5) or CHEM 105 and BIOL 224, Human Physiology (4) ]

8
Total units in the minor core

## Minor Options

These courses are to be determined with and approved by a departmental advisor. They must be in kinesiology and may include a maximum of 3 units of field work and/or special studies.

## Total units in the minor option

Total units in the minor

## Master of Arts in Kinesiology

The Master of Arts degree program is oriented toward professional training for those interested in obtaining terminal degrees in areas such as teaching, coaching, adult fitness, and rehabilitation. The program emphasizes a common core/knowledge base, the interdisciplinary nature of kinesiology, a focus on applied professionals, and a culminating experience that is individualized to meet each student's professional needs and interests.

At the completion of the program all graduates will

- Demonstrate knowledge of basic principles and an understanding of the current research in the field of kinesiology;
- Apply critical thinking, writing, reading, oral communication, quantitative and qualitative analysis, and information management skills to movement-related questions;
- Understand the scientific method and other systematic ways of knowing relative to research and scholarship in human movement;
- Develop a sense of responsibility to and for the profession and be professionally involved at the local, state, and/or regional levels; and
- Be prepared to engage in informed dialogue with diverse professional and lay communities regarding kinesiological principles and practices.


## M.A. Core Requirements

KIN 500 Introduction to Scholarly Inquiry in Kinesiology 2
KIN 505 Seminar in Psycho-Social Bases of Human Movement 3
KIN 520 Pedagogical Methods
KIN 525 Individualized Movement Programs for Rehabilitation \& Education
KIN 550 Seminar in Biomechanics
KIN 560 Advanced Physiology of Exercise
KIN 590 Graduate Internship
KIN 599 Culminating Project
Total units in the M.A. core

## M.A. Electives

In consultation with and receiving approval from an advisor, select an additional 9 -unit study plan. For example, a student who wishes to pursue an emphasis in sport pedagogy will select from the following list of electives:

KIN 521 Curriculum Design \& Analysis in Physical Education (3)
KIN 522 Research and Issues in Physical Education Teacher Education (3)
EDSS 444 Teaching in the Content Area (Physical Education) (3)
EDCT 558 Educational Technology and Classroom (3)
EDCT 560 Instructional Design and Technology (3)
Total units in M.A. electives

Total units in the M.A. degree
The Department of Kinesiology offers the M.A. in Kinesiology via the culminating project in which graduate students choose from the following options: project, thesis, scholarly article, business/curriculum plan, clinical project, and a research component of a larger sponsored project. In so doing, graduate students are offered an array of options that are individualized to their specific professional needs. Students selecting the thesis option must complete an approved statistics course as a prerequisite.

## Admissions Procedures

Students must apply to the University through the Office of Admissions and Records and must complete a separate application to the Kinesiology Department. Applicants must:

1. Apply to the Office of Admissions to be admitted to graduate status in the University. The application must include the following:
a. Two sets of transcripts of all college work; and
b. Certification of a B.S. degree or the equivalent with a 3.0 GPA in the last 60 units of college work.
2. Apply to the Department of Kinesiology for admission to the Master's Degree Program in Kinesiology. This application should be sent directly to the Department of Kinesiology, Attn: Graduate Studies Coordinator. The Kinesiology Department Application requires:
a. Kinesiology Department Graduate Application (available at http://www.sonoma.edu/kinesiology/ma_program/ Applicant_Info.htm);
b. Personal statement articulating the applicant's academic and professional goals;
c. Official transcripts from all undergraduate and graduate institutions; and
d. Two letters of recommendation.

Electronic submission of application is preferred, e.g. of application, letters of recommendation, personal statement and unofficial copy/scan of transcripts (pending arrival of official transcripts).

Students may be admitted as conditionally classified or classified graduate students. The procedures for each are as follows:

## Conditionally Classified Graduate

Application for students interested in pursuing a master's degree in kinesiology will be forwarded to the department for consideration. Students who have degrees in other areas of study must make up deficiencies in undergraduate areas: descriptive statistics, biomechanics, psychological basis of human movement, and physiology of exercise. Only one (up to 4 units) of these courses may be counted toward the M.A. degree. Completion of WEPT required.

## Classified Graduate

Classified graduate students are those who have completed all admissions requirements and undergraduate course work and have been admitted to the University and the master's degree program in the Department of Kinesiology.

Please see the Degree Requirements section in this catalog for postbaccalaureate degree requirements. The graduate coordinator serves as advisor to all conditionally classified graduate students until the students select a major advisor and advance to classified graduate status.

## Advancement to Candidacy for the M.A. Degree

The Advancements to Candidacy form (GS01) describes the culminating project and verifies that the student has met the Writing Proficiency Requirement. This form must be approved by all members of the student's project committee and the department graduate coordinator before being forwarded to the Associate Vice President for final review and approval prior to granting of the M.A. degree.

## LIBERAL STUDIES UKIAH

UKIAH RESIDENT PROGRAM DEPARTMENT OFFICE
Nichols Hall 220
(707) 664-2029
www.sonoma.edu/ukiah

## PROGRAM COORDINATOR

Sandra Harrison Feldman
Stevenson Hall 3004
(707) 664-2437

## Program Offered

## Bachelor of Arts in Liberal Studies

School of Social Sciences

## Ukiah Resident Program

Sonoma State University offers an upper-division program in Ukiah leading to a bachelor of arts in liberal studies. The Liberal Studies Ukiah program offers a wide variety of courses from the social sciences, humanities, and natural sciences, while providing a flexible major through which students may also take courses in other areas of interest.

Courses are offered in Ukiah for resident credit to students who have completed or almost completed general education requirements, and who have been admitted to Sonoma State University.

Like more traditional liberal arts majors, the Liberal Studies Ukiah major is excellent preparation for students interested in a career in teaching, the legal profession, social services, nonprofit organizations, or business, as well as graduate work in the social sciences and the humanities.

## Bachelor of Arts in Liberal Studies

## Requirements for the major (all upper-division)

Humanities (American multicultural studies, theater arts, art history, anthropology, English, philosophy)
Behavioral sciences (economics, geography, political science, psychology, sociology, women's and gender studies, history)
Natural sciences (astronomy, biology, chemistry, environmental studies, geology, physics)
Electives (drawn from above disciplines or in consultation with advisor)
Total units in the major

* Includes 9-unit upper-division GE requirement.


## Liberal Studies Ukiah Admission Criteria

Courses are offered in Ukiah for resident credit to students who meet the following criteria:

1. Students must be residents of Mendocino County or Lake County.
2. Students must have completed 60 or more transferable units. (Sonoma State University accepts up to 70 transferable college semester units of course credit.)
3. Students must have completed all 9 units required in General Education, Category A - Communication, Critical Thinking, and Freshman Composition.
4. Students must have completed both the science laboratory requirement and the mathematics requirement in General Education, Category B - Natural Sciences and Mathematics.
5. Students must have been admitted to Sonoma State University and declared a major in Liberal Studies Ukiah.

## Application to the Program

Students should follow the application procedures described in the application section of this catalog, being sure to list the major as Liberal Studies Ukiah, and the major code as 49016. More information about the program may be obtained by calling the Liberal Studies Ukiah program office, (707) 664-2029.

## Sample Four-Semester Plan for Bachelor of Arts in Liberal Studies Ukiah Program

This plan assumes the student:

1. Has completed 66 transferable units, including all lowerdivision GE courses; and
2. Is attending full time. Since fields, rather than courses, are required for the major, the plan shows the way that the student would complete course work in each of the required fields, as well as the elective units within the major.

## JUNIOR YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :---: | :---: |
| Natural Science (3) | Natural Science (3) |
| Humanities (3) | Humanities (3) |
| Behavioral Science (3) | Behavioral Science (3) |
| Humanities (3) | Humanities (3) |
| Behavioral Science (3) | Behavioral Science (3) |
| SENIOR YEAR:: 24 Units |  |
| Fall Semester (12 Units) | Spring Semester (12 Units) |
| Behavioral Science (3) | Major Elective (3) |
| Humanities (3) | Major Elective (3) |
| Behavioral Science (3) | Major Elective (3) |
| Humanities (3) | Major Elective (3) |
| TOTAL UNITS:: 120 |  |

## LINGUISTICS

PROGRAM OFFICE
Nichols 332
(707) 664-2504

LINGUISTICS PROGRAM COORDINATOR<br>Contact Department of English, (707) 664-2140, or<br>Greta Vollmer, Assoc. Professor, English<br>LINGUISTICS PROGRAM ADVISORS<br>Richard J. Senghas, Professor, Anthropology<br>Mira Katz, Asst. Professor, English<br>Jeffrey Reeder, Professor, Modern Languages (Spanish)<br>Robert Train, Asst. Professor English<br>Hee-won Kang, Professor, Education<br>Karen Grady, Assoc. Professor, Education<br>Kelly Estrada, Asst. Professor, Education

## Programs Offered

## Minor in Linguistics

Supplementary English Language Development (SELD)
The fundamental concern of linguistics is with description and explanation of the interrelatedness of thinking and using language. This concern takes many forms: among others, inquiry into the nature of language as speech or signing, as knowledge, and as communication; inquiry into the history of languages and how languages change; inquiry into how language is acquired, and into the nature of language learning and teaching.
The linguistics minor offers grounding in general linguistic principles, together with the widest possible selection of elective courses. Through this study plan, students are able to develop interests in particular areas of linguistics as strong complements to majors in related disciplines.

As of spring 2008, the Teaching English as a Second Language (TESL) certificate within the linguistics program has been discontinued in order to facilitate the implementation of a more comprehensive program to be offered by the SSU School of Education. Students interested in TESL training should contact Prof. Karen Grady in the School of Education about the M.A. in TESOL.

It is possible to develop an interdisciplinary major with a strong emphasis in linguistics (please see the Interdisciplinary Studies section in this catalog). Interested persons should contact both the interdisciplinary studies program coordinator and the linguistics program coordinator.

Also, through the special emphasis in the anthropology major (please see the Anthropology section in this catalog), a student may create a course of study in linguistic anthropology that incorporates a number of the linguistics program courses.

## Minor in Linguistics

For a minor in linguistics, students must complete 20 units as follows:

## Minor Core Requirements

One of the following introductory courses:

ANTH 200 Introduction to Linguistic Anthropology
ENGL 203 Introduction to Linguistic Studies 4
ENGL 341 Exploration in Language 4
SPAN 304 Introduction to Spanish Linguistics 4
One of the following courses in linguistic methods: 4
ANTH 480 Methods in the Study of Language Use 4
ENGL 489 Topics in Linguistics 4*
ENGL 588 Seminar: Study of Language 4*
SPAN 400 Special Topics in Linguistics $4^{*}$
SPAN 490 Seminar in Linguistics $4^{\star}$

* Course counts toward linguistics methodology requirement if course topic is methodological.

Total Units in the Minor Core
(11-12)

## Minor Electives

Students pursuing a linguistics minor need to take an additional 8-9 elective units in courses with linguistic components selected in consultation with a program advisor, for a total of 20 units. These elective course include (but are not limited to):

- All courses offered by the linguistics program;
- All courses mentioned above as satisfying linguistics minor requirements; and
- Pre-approved elective courses:

AMCS 355 Language \& Ethnicity 4
ANTH 380 Language, Culture \& Society 4
ANTH 382 Language Change 4
ANTH 383 Language in Sociopolitical Context 4
ANTH 386 Sign Languages and Signing Communities 4
ENGL 379 Pedagogical Grammar 4
PHIL 383 Philosophy of Language 3
Total elective units in the minor (8-9)
Total units in the minor (20)

## Supplementary English Language Courses (SELD)

Courses in Supplementary English Language are designed to enable Sonoma State University students for whom English is a second language to improve their proficiency in the English language, especially in the reading and writing skills required for success at the University. Admission to these courses is determined by ESL Placement Test scores. Courses in SELD prepare students for entrance into ENGL 101. Students will also be required to take the Written English Proficiency Test. Generally, these courses are coordinated through the Sonoma State American Language Institute.

DEPARTMENT OF MATHEMATICS AND STATISTICS
Darwin Hall 114
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www.sonoma.edu/math
DEPARTMENT CHAIR
Sam Brannen

## ADMINISTRATIVE COORDINATOR

Marybeth Hull

## Faculty

*William Barnier
Sam Brannen
*Sharon Cabaniss
Jean Bee Chan
Ben Ford
Susan Herring
Izabela Kanaana
Brigitte Lahme
*Rick Luttmann
Elaine McDonald-Newman
*Edith Prentice Mendez
Jerry Morris
Scott Nickleach
Sunil Tiwari
*Faculty Early Retirement Program

## Programs Offered

## Mathematics

## Bachelor of Arts in Mathematics

Bachelor of Science in Mathematics
Cooperative Master of Arts in Mathematics (with San Francisco State University)

Minor in Mathematics
Minor in Math for Teachers
Preparation For Teaching

## Statistics - See the Statistics portion of this Catalog

Bachelor of Arts in Applied Statistics
Bachelor of Science in Statistics
Minor in Applied Statistics
Preparation for Actuarial Exams

## About Mathematics

Mathematics is a rapidly growing discipline whose concepts and applications play an ever-increasing part in modern life. Mathematics has always been an essential tool in the physical sciences, and has more recently been applied extensively in such diverse areas as medical and biological research, environmental studies, management science, behavioral and social sciences, statistics, and computer science.

Our basic curriculum is designed to give students the mathematical skills necessary for success in business, industry, government, and teaching, as well as to provide a sound background for continuation of study toward advanced degrees in mathematics, computer science, statistics, and related fields.

The B.A. in mathematics provides preparation for teaching, general application of mathematics, and graduate study in mathematics. The bi-disciplinary concentration allows a student to combine mathematics with another discipline.

The B.S. in mathematics offers concentrations in applied mathematics and computer science. These programs prepare students for graduate study in mathematics and for work in a variety of other fields: computer science, work in government and industry, biostatistics, actuarial work, and consultative problem-solving in modern industry.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major | $45-55$ |
| Electives | $14-24$ |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Core Curriculum

MATH 161 Differential and Integral Calculus I (3 units in GE) 4
MATH 211 Differential and Integral Calculus II 4
MATH 220 Higher Mathematics: An Introduction 3
MATH 261 Multivariable Calculus 4
MATH 340 Real Analysis I 4
Total units in core curriculum
19

## B.A. Program (Pure Mathematics)

| Core Curriculum | 19 Plus |
| :--- | ---: |
| MATH 241 Differential Equations with Linear Algebra | 4 |
| MATH 306 Number Theory or | 3 |
| MATH 308 Geometry | 4 |
| MATH 320 Modern Algebra I | 3 |
| MATH 322 Linear Algebra | 3 |
| MATH 360 Complex Variables |  |
| MATH 418 Topology or |  |
| MATH 420 Modern Algebra II or | 3 |
| MATH 440 Real Analysis II |  |

## Supporting Courses

MATH 180 Computing for Math/Science or
CS115 Programming I (3 units in GE)
PHYS 114 Intro to Physics (3 units in GE)

## Total units in B.A. program

45-47

## B.A. Program (Secondary Teaching)

This B.A. program satisfies state requirements for subject matter preparation in mathematics for the Single Subject Teaching Credential.

## Core Curriculum

19 Plus
MATH 222 Elementary Applied Linear Algebra or
MATH 322 Linear Algebra
MATH 250 Probability and Statistics
3
MATH 306 Number Theory
MATH 308 College Geometry
MATH 310 History of Mathematics
MATH 316 Graph Theory and Combinatorics or
MATH 416 Graph Theory and Combinatorics
MATH 320 Modern Algebra I
MATH 345 Probability Theory or
MATH 470 Mathematical Modeling
MATH 390 Fieldwork and Seminar:
Secondary Mathematics Teaching
MATH 490 Capstone Seminar:
Secondary Mathematics Teaching

## Supporting Courses

MATH 180 Computing for Math/Science or CS 115 Programming I (3 units in GE)
PHYS 114 Intro to Physics (3 units in GE)

Note: Students considering graduate school in mathematics are advised to choose MATH 322 instead of MATH 222. MATH 241 is highly recommended

## B.A. Program (Bi-disciplinary Mathematics)

This B.A. concentration allows a student to combine mathematics with another discipline.

## Core Curriculum

19 Plus
MATH 161 Differential and Integral Calculus I (3 units in GE) 4
MATH 211 Differential and Integral Calculus II
22 additional unis selected from the following list, including a minimum of 14 at the upper-division level:
MATH 165 Elementary Applied Statistics
MATH 180 Computing for Mathematics and Science
MATH 220 Higher Mathematics: An Intro.
or MATH 210 Intro. to Proof
or MATH 142 Discrete Structures
MATH 222 Elementary Applied Linear Algebra
MATH 241 Differential Equations with Linear Algebra ..... 4
MATH 261 Multivariable Calculus ..... 4
2-4 MATH 265 Intermediate Applied Statistics with SPSS ..... 4
MATH 306 Number Theory ..... 3
MATH 308 College Geometry ..... 3
MATH 310 History of Mathematics ..... 3
MATH 316 Graph Theory and Combinatorics ..... 3
or MATH 416 Graph Theory and Combinatorics ..... 3
MATH 320 Modern Algebra I ..... 4
MATH 322 Linear Algebra ..... 3
MATH 330 Techniques of Problem Solving ..... 2
MATH 331 Differential Equations II ..... 3
MATH 340 Real Analysis I ..... 4
MATH 345 Probability Theory ..... 4
MATH 352 Numerical Analysis ..... 3
MATH 360 Introduction to Complex Variables ..... 3
MATH 375 M ${ }^{*} A^{\star} \mathrm{T}^{*} \mathrm{H}$ Colloquium ..... 1
MATH 418 General Topology ..... 3
MATH 420 Modern Algebra II ..... 3
MATH 430 Linear Systems Theory ..... 3
MATH 431 Partial Differential Equations and Integral Transformations ..... 3
MATH 440 Real Analysis II ..... 3
MATH 441 Operations Research ..... 3
MATH 470 Mathematical Models ..... 3
MATH 485 Selected Topics ..... 1-3
A minimum of 22 additional units in another program (outside of the Department of Mathematics and Statistics), at least 12 upper- division level, chosen in consultation with and approved by the Mathematics and Statistics Department Chair.
Total units in Bi-disciplinary Mathematics program ..... 52
B.S. Program (Applied Mathematics)
This B.S. concentration prepares students for employment in indus-try and graduate schools in scientific fields.
Core Curriculum ..... 19 Plus
MATH 241 Differential Equations with Linear Algebra ..... 4
MATH 316 Graph Theory and Combinatorics or MATH 416 Graph Theory and Combinatorics ..... 3
MATH 322 Linear Algebra ..... 3
MATH 331 Differential Equations II ..... 3
MATH 345 Probability Theory ..... 4
MATH 352 Numerical Analysis ..... 3
MATH 360 Complex Variables or
MATH 431 Partial Differential Equations ..... 3
MATH 441 Operations Research ..... 3
MATH 470 Mathematical Modeling ..... 3
Supporting Courses
MATH 180 Computing for Math/Science ..... 2
PHYS 114 Intro to Physics (3 units in GE) ..... 4
Total units in applied mathematics program ..... 54

## B.S. Program (Computer Science Option)

This B.S. concentration prepares students for computer industry employment and graduate schools in computer-science-related fields. Students who are interested in the mathematical foundations of computer science generally opt for this major.

## Core Curriculum

19 Plus
MATH 241 Differential Equations with Linear Algebra
MATH 316 Graph Theory and Combinatorics or
MATH 416 Graph Theory and Combinatorics
MATH 322 Linear Algebra
MATH 345 Probability Theory
MATH 352 Numerical Analysis
CS 110 UNIX
CS 115 Programming I
CS 215 Programming II
CS 315 Data Structures
CS 415 Algorithm Analysis (4) or
CS 355 Database Management Systems Design (4)* or
CS 375 Computer Graphics (4)* or
CS 454 Theory of Computation*

* Course may be substituted by arrangement with the math advisor.


## Supporting Course

PHYS 114 Intro to Physics (3 units in GE)
Total units in computer science program

## Sample Four-Year Program for Bachelor of Arts in Mathematics

FRESHMAN YEAR:: 30 Units

| Fall Semester (16 Units) | Spring Semester (14 Units) |
| :---: | :---: |
| MATH 161 (GE) (4) | MATH 211 (4) |
| GE (3) | PHYS 114 (GE) (4) |
| ENGL 101 (3) | MATH 180 (2) |
| GE (3) | GE (3) |
| Freshman Seminar (3) | MATH 175 (elective) (1) |
| SOPHOMORE YEAR:: 29 Units |  |
| Fall Semester (13 Units) | Spring Semester (16 Units) |
| MATH 241 (4) | MATH 261 (4) |
| MATH 220 (3) | MATH 322 (3) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
|  | GE (3) |
| JUNIOR YEAR:: 32 Units |  |
| Fall Semester (16 Units) | Spring Semester (16 Units) |
| MATH 308 or Elective (3) | MATH 340 (4) |
| MATH 320 (4) | Elective or MATH 306 (3) |


| GE (3) | GE (3) |  |
| :--- | ---: | ---: |
| GE (3) |  |  |
| UD GE (3) | UD GE (3) |  |
|  |  |  |
|  | SENIOR YEAR:: 29 |  |

## Statistics

For the Department's Statistics offerings (majors, minor, and actuarial science preparation), see the Statistics section of this Catalog.

## Cooperative Master of Arts in Mathematics

The Department of Mathematics participates in a cooperative Master of Arts in mathematics with San Francisco State University. Through this program, students who have been accepted into the Master's degree program at San Francisco State may complete up to 12 units of course work in residence at Sonoma State University. Students interested in this cooperative program should contact the chair of the mathematics department for further information.

## Minor in Mathematics

Twenty units of mathematics are required. These must include MATH 161 (or its equivalent) and at least 6 units of upper-division mathematics courses, not including MATH 300A, MATH 300B, MATH 390, MATH 395, MATH 399, or MATH 490. Approval of the mathematics department should be obtained by the junior year in order to plan the minor properly.

## Minor in Math for Teachers

This program provides the mathematical background to teach effectively at the elementary, middle school, and early high school levels. Twenty-two units are required. These must include MATH 300A, MATH 103 or 150, MATH 142 or 200 or 220, MATH 107 or 161, MATH 250 or 300B, and two courses chosen from MATH 306, MATH 310, MATH 316, and MATH 470. Additional recommendations for students pursuing this minor are MATH 390, and MATH 222 for those who intend to take the mathematics CSET exam.

## Preparation for Teaching

## Secondary

The B.A. program for secondary teaching is designed for students planning to teach mathematics in middle, junior high, and high
schools. This program is fully accredited by the California Commission on Teacher Credentialing and satisfies the subject matter competency requirement for a Single Subject Teaching Credential. (An alternative route for demonstrating subject matter competence is passing a battery of commercial exams.) Most students complete the B.A. program, then a one-year teaching credential program to earn the Single Subject Credential. Any student interested in teaching mathematics at the secondary level should consult a mathematics department education advisor as early as possible in his or her college career. The advisor can provide information about Sonoma State's Single Subject Credential Program and can help the student design a plan for taking the required mathematics and education courses to complete both degree and credentialing requirements efficiently.

## Elementary

The Department of Mathematics also offers coursework for students planning to teach in elementary schools or preschools. The minimal college-level mathematics preparation recommended for elementary teachers is three courses: MATH 150, MATH 300A, and MATH 300B. Particular subject matter preparation programs for elementary teachers may have additional requirements or may offer the option of a mathematics concentration; consult advisors in the program for additional details.

## Middle School or Elementary Mathematics Specialist

Students interested in teaching mathematics in middle school, or in specializing in mathematics at the elementary level, should consider the math minor for teachers. This minor also helps students who wish to prepare for the CSET (California Subject Examination for Teachers) exam in mathematics, especially at the Foundational level. The Foundational level credential in mathematics is appropriate for elementary, middle, and early high school teaching.

## Entry-Level Mathematics (ELM) Requirement

Unless exempted, the Entry-Level Mathematics Examination must be taken within the past five years before enrollment in any general education course or developmental mathematics course (MATH 35 or 45 ). The ELM results will place the student in the appropriate level of mathematics courses. Note that if placement in the developmental mathematics sequence is necessary, satisfactory completion of MATH 45 is required for placement in MATH 103, 104, $105,107,111,131,141,150$, and 165. Please consult the Schedule of Classes or telephone the Office of Testing Services for times and places of examination. The examination will be given in conjunction with the English Placement Test. For additional information, please see the Admissions section of this catalog.

## Grading Policy in the Department of Mathematics and Statistics

## Nonmajors

All mathematics courses except MATH 35, 45, 103, 104, 105, 107, $111,131,141,150,161$, and 165 are available in the Cr/NC grading mode to nonmathematics majors.

## All Students

MATH 175, 210, 295, 330, 390, 395, and 499 are available only as $\mathrm{Cr} / \mathrm{NC}$.

## Mathematics and Statistics Majors

A mathematics major must take all mathematics courses used to meet major requirements in the traditional grading mode, with the exceptions of courses offered only in the Cr/NC modes: MATH 107W, 161W, 175, 210, 211W, 295, 330, 390, 395, and 499, and any course taken as credit by challenge examination (please see more information on this in the Admissions section of this catalog).

Majors are advised to take PHIL 102 for the GE category A3 (Critical Thinking).

## MODERN LANGUAGES AND LITERATURES

DEPARTMENT OFFICE

Stevenson Hall 3016
(707) 664-2351

DEPARTMENT CHAIR
Christine B. Renaudin
ADMINISTRATIVE COORDINATOR
Kate Sims

## Faculty

Michaela Grobbel / German, Literature and Culture of the GermanSpeaking World, Ethnic Minority Studies, Feminist Studies, World Literature
Jorge Porras / Spanish, Theoretical Linguistics
Jeffrey Reeder / Spanish, Applied Linguistics, Portuguese
Christine Renaudin / French, French Literature, Culture, Francophone Studies
Suzanne Toczyski / French, French Literature, Culture, Francophone Studies
Robert Train/ Spanish, Sociolinguistics, Language \& Culture Learning Center Director

## Programs Offered

Bachelor of Arts in French
Bachelor of Arts in Spanish
Master of Arts in Spanish
Minor in French
Minor in German
Minor in Spanish
Courses in World Literatures in English
Students can also take advantage of programs offered by International Programs.

The programs and courses of the Department of Modern Languages and Literatures make accessible to students the languages, literatures, and cultures of France and the Francophone world, Germany and Europe, and Spain and Latin America. We recognize students' need for linguistic competency and cultural sensitivity in the multilingual, multicultural world in which they will live and work. Thus, language is taught as an integral part of its cultural context. Programs and courses are designed to complement academic work in many other fields. For further information please consult the department's website at http://www.sonoma.edu/modlang/.

The Department of Modern Languages and Literatures offers major and minor programs in French and Spanish, and a minor program in German. (Students interested in German should also
consider a B.A. in Global Studies, Europe concentration.) Modern language courses are taught in the target language; functional control of all language skills (reading, writing, listening comprehension, and speaking) is a primary goal.

It is highly advisable that students combine a major or minor in modern languages with a major or minor in another discipline. Coursework, minors, and majors in modern languages complement specialized knowledge and expertise in other academic areas. The structure of the modern languages major programs facilitates the planning of double majors and minors. In addition to majors and minors offered by other departments, interdisciplinary and career minor programs of special interest to modern languages students include the international studies minor and the minor in linguistics.

## Careers in Modern Languages and Literatures

Through careful academic planning, the study of modern languages and literatures can open a wide range of career options in such fields as international business, government service, domestic and international human services, travel, librarianship, translating and interpreting, and journalism. Many department alumni have pursued work in the Peace Corps and various other nonprofit entities; others have earned teaching credentials or advanced degrees in their discipline and teach at the elementary, secondary, or post-secondary levels. A degree in a second language is also an excellent preparation for a career teaching English as a second language (TESL). The Department of Modern Languages and Literatures successfully prepares students for graduate study in a wide variety of fields, particularly in combination with a second major or a minor. The importance of early and frequent consultation with departmental advisors cannot be overstressed. It is the key to meaningful access to academic and career opportunities, including internships both at home and abroad.

## International Programs

Through the International Programs of the California State University, Sonoma State University students may spend an academic year in residence at a university abroad. Courses taken abroad through the International Programs count as residence units in all University programs and can be integrated into an overall academic plan. For further information, contact International Services, (707) 664-2582, located in Salazar 1060.

## Language and Culture Learning Center

The Language and Culture Learning Center is dedicated to enhancing the educational experience of students at Sonoma State University through the use of technology in learning modern languages and exploring world cultures. In keeping with Sonoma State's focus on liberal arts education, the Center strives to integrate learning
technologies into students' educational experiences in meaningful, personal, and individual ways.
The facility in 1028 Stevenson provides students with weekday access to language and culture learning materials representative of the courses taught in the Department of Modern Languages and Literatures. The Center's multimedia computer facility in 1040 Stevenson offers students the chance to participate in whole-class activities and to independently supplement their classroom work through access to digital language learning materials available on CDs and the Internet. The Center's language mentoring program provides individual instruction and assistance to students enrolled in lower-division courses within the Department of Modern Languages and Literatures. For further information on the Language and Culture Learning Center at Sonoma State, please consult our website at www.sonoma.edu/modlang/learning_center/index.html.

## Placement in Modern Language Courses

The faculty of the Department of Modern Languages and Literatures will assist students in selecting the appropriate course level. In particular, recommendations for placement in French classes differ slightly from the more general schedule described below; students interested in studying French should contact one of the instructors. Students with this many years in high school language courses should enroll in courses in this level:

Less than two years 101
Two years 102
Three years 201 or any other 200 course except 202
Four years $\quad 202$ or any other 200 course except 201
Students who have taken an Advanced Placement (AP) exam and scored 3,4 , or 5 should contact an advisor in that language for specific information regarding placement and credit.
Please note that placement can be very individual, particularly for heritage speakers of a language. Any students who have reason to believe that their language skills are more advanced than this table would imply, should consult with the instructor of the course in which they think they would benefit most.
Transfer students with college credit in a modern language may not receive credit for SSU courses in the same language that duplicates previous work. Exceptions may be made by the chair of the department when the following conditions are met:

1. The courses involved are lower-division; and
2. The original study was accomplished three or more years prior to enrollment in the equivalent course at Sonoma State University.

In addition to the four-year graduation plans detailed below, students pursuing the bachelor of arts in French or Spanish may also elect a five- or six-year plan. Please see an advisor for details.

## Course Challenges

Students may challenge courses, as provided in University procedures (please see more information in the Admissions section of this catalog). It is essential that students interested in this possibility consult instructors of the courses they wish to challenge at the start of the semester.

## Grade Requirements

## Undergraduate Progression and Retention in French and

Spanish Majors: Students must maintain a minimum grade of C- in each course required for the major in French or Spanish; otherwise, the student will not be permitted to graduate in the major. The student may repeat the course if $s / h e$ does not earn the minimum grade. The student must receive a grade of C - or better when the course is repeated. This policy also applies to courses taken at other institutions, abroad or in the United States.

## Bachelor of Arts in French

The purpose of the French major is to enable students to attain an advanced level of competency in speaking, listening, reading, and writing, and to provide them with a comprehensive knowledge of the historic and contemporary culture and institutions of France and the Francophone world. The French language is studied not as an end in itself, but as a vehicle for students' broader and more informed participation in their chosen fields. Students who study French at SSU also have the option of completing a portion of the course work in France (Paris or Aix-en-Provence) or in Canada, and should visit the International Programs Office for details.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | 32 |
| General electives | 37 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

Note: Students should note the prerequisites for upper-division courses.

## Requirements for the Major

Complete the following 32 Units:
FR 202 Oral French 4
FR 300 Introduction to Literary
Analysis \& Critical Writing 4
FR 320 France Yesterday 4
FR 321 France Today 4
FR 410 French Literature 4
FR 411 French Literature 4
FR 415 Special Topics in French Culture 4
FR 475 Senior Seminar 4
Total units in the major 32

## Sample Four-Year Program for Bachelor of Arts in French

Variations are easily accommodated in the sequencing of GE requirements, but should be made in consultation with an advisor. Note that courses designated as "elective or minor" total 37 units and could easily accommodate a second major (depending on the selected double major, which might require one or two additional courses). Careful planning and early identification of a second major make this feasible. A variation would be to complete the junior or senior year in the CSU International Program, meeting some upper-division French requirements in a single year, and completing the second major in the other upperdivision year at SSU.

FRESHMAN YEAR:: 30 Units

| Fall Semester (14 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| FR 101 (4) | FR 102 (4) |
| FR 101L (1) | FR 102L (1) |
| GE A2 (3) | GE C1 (3) |
| GE A3 (3) | GE B1 (*1) (3) |
| GE B4 (3) | GE A1 (3) |
|  |  |
|  |  |
|  | Elective or Minor (2) |

## Fall Semester (14 Units)

FR 201(*2) (4)
FR 201L (1)
GE B3(*1) (3)
GE D2(*3) (3)
GE C2 (3)
Spring Semester (16 Units)

| GE C2 (3) |
| :--- |
| JUNIOR YEAR:: 30 Units |

## Fall Semester (15 Units)

FR 300 (C4)(UD)(4)
Spring Semester (15 Units)

FR 321 (C4)(UD)(4)
GE D1 (UD) (3)
Elective or Minor (4)
FR 202(*2) (4)
GE D3(*5) (3)
GE D4(*5) (3)
GE B2 (3)
GE D5(*4) (3)

## Fall Semester (16 Units)

Spring Semester (14 Units)
FR 320 (C4) (UD) (4)
Elective or Minor (3)
Elective or Minor (3)
Elective or Minor (3)
Elective or Minor (3)
TOTAL UNITS:: 120
(*1) Either B1 or B3 must have a lab.
(*2) Counts as C4.
(*3) Important to take World History before upper-division French.
(*4) Can be an early prerequisite for business majors or minors, and might be taken earlier, or later, for those who decide at a later date on an internationally-oriented career other than business.
(*5) Advantage of taking D3 and D4 together: understanding the U.S. Constitution in connection with U.S. history.

## Minor in French

## Requirements for the Minor

The French minor presupposes 15 units or the equivalent of $F R$ $101,102,201$, and lab courses 101L, 102L, and 201L. All or part of these may have been completed elsewhere. Also, the student who wishes to minor in French is required to take:

FR 202 Oral French
FR 300 Introduction to Literary Analysis \& Critical Writing ..... 4
and one of the following pair of courses: ..... 8
FR 320 France Yesterday ..... 4
and FR 410 French Literature ..... 4

or
FR 320 France Yesterday ..... 4
and FR 321 France Today ..... 4
or
FR 321 France Today ..... 4
and FR 411 French Literature ..... 4
and either FR 415 Special Topics in French Culture ..... 4
or FR 475 Senior Seminar ..... 4
Total units in the minor20

## Minor in German

The German minor program enriches students' academic and career opportunities by providing them with skills that complement many majors at SSU. German helps students understand themselves as participants in their own culture. It also helps them understand U.S. history and culture, since German-Americans represent the largest single heritage population. Moreover, German is the most widely spoken language in Europe. Knowing German also opens up opportunities to connect with more than 120 million native speakers worldwide. Additionally, the study of German prepares students to be competitive for graduate school, since many graduate programs require or recommend German. German minors may also have a distinct advantage entering a professional career, in fields such as international business, economics, science, history, global studies, music, or teaching. The SSU German program offers a variety of courses that provide students with linguistic skills and cultural knowledge of the German-speaking world. Students are encouraged to participate in the CSU International Programs and take courses in Germany, which may be counted toward the minor. Students wishing to study abroad are strongly encouraged to consult with their German advisor to ensure that courses taken abroad can be applied to the German minor. A minimum of 8 of the 20 required units must be taken at SSU.

## Requirements for the Minor

The German minor program consists of a minimum of 20 units of college coursework in German, of which 8 units must be taken at SSU: 4 units at the 200 level (GER 200 or GER 210) and 4 units consisting of GER 300. Additionally, German minor students must attain
the "Goethe-Zertifikat B1" (Zertifikat Deutsch), the internationally recognized proficiency certificate offered annually at SSU under the auspices of the Goethe Institute. Students who have successfully completed the SSU German Program may be confident of passing the certification examination, offered at Sonoma State University at the end of every spring semester.

All German courses, except for GER 101, count toward the German minor. Note that GER 300 must be taken in residence at SSU. Students must earn a minimum grade of C - in each course that counts for the German minor. They may repeat the course once if they do not earn the minimum grade. Students must receive a grade of C - or better when the course is repeated. This policy also applies to courses taken at other institutions, abroad or in the United States.

The German minor presupposes 5 units or the equivalent of GER 101 (4 units) and GER 101L (1 unit). Students who wish to minor in German are required to take the following 5 courses:
GER 102 (4 units)-Fall, Spring
Second Semester: Contemporary Germany
Prerequisite: GER 101 or consent of instructor.
Requires concurrent enrollment in GER 102 L (1 Unit)
GER 200 (4 units)-Fall
Intermediate German: The German-Speaking World Today
Prerequisite: GER 102 or consent of instructor.
Requires concurrent enrollment in GER 200 L (1 Unit)
GER 210 (4 units)—Spring
Intermediate German through Film
Prerequisite: GER 102 or consent of instructor.
Requires concurrent enrollment in GER 210L
GER 314 (3 units)-Fall
Literature and Culture of the German-Speaking World
Note: Taught in English. Requires concurrent enrollment for German minor students in GER 399L.
Prerequisite for German minor students: GER 102 or consent of instructor. Course may be repeated for credit if topic changes.
GER 300 (4 units)—Spring
Advanced German Studies
Prerequisites: GER 200 and GER 210, or consent of instructor. Course may be repeated for credit if topic changes.

Total units in the minor

## Bachelor of Arts in Spanish

The culture and literary traditions of Spain, the growing interest in the politics, culture, and commerce of Latin America, the proximity of Mexico, and the presence of a large Spanish-speaking population in California and the University's service area all contribute to the shaping of the curriculum of the Spanish program and provide excellent reasons for the study of Spanish. The Spanish program offers a full range of courses in language, literature, and culture, as well as interdisciplinary concentrations. Courses taken abroad in the CSU International Programs, with the exception of Span 490 and 491 (at least one of which must be taken in residence at SSU), may be counted toward the major or minor.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | $36-56$ |
| Electives/Other | $13-33$ |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Spanish Placement Test

A free placement test is offered by the department. Students who have a background in Spanish, whether through study in high school or informal exposure, and have not previously taken a college Spanish course are strongly advised to take the placement test. The test takes approximately one hour. Information is available in the departmental office.

## Lower-Division Spanish Courses

These courses are prerequisites for the upper-division courses in the major and minor. Some or all of these courses or their equivalents may be waived by virtue of prior language study, courses in transfer, or placement in higher level courses.
SPAN 101 Basic Spanish, 1st Semester 4
SPAN 101L Language Laboratory 1
SPAN 102 Basic Spanish, 2nd Semester 4
SPAN 102L Language Laboratory 1
SPAN 201 Intermediate Spanish, 1st Semester 4
SPAN 201L Language Laboratory 1
SPAN 202 Intermediate Spanish, 2nd Semester 4
SPAN 202L Language Laboratory 1
Electives
SPAN 150 Elementary Conversation 2
SPAN 250 Intermediate Conversation 2
Total units $\quad 20-24$

## Spanish Minor

For a minor, students must complete SPAN 300, 301, 304, and 305, and either 306 or 307.
SPAN 300 Advanced Spanish Language 4
SPAN 301 Advanced Composition and Conversation 4
SPAN 304 Introduction to Spanish Linguistics 4
SPAN 305 Introduction to Literature and Research 4
Plus, either:
SPAN 306 Cultures of Spain or
SPAN 307 Cultures of Latin America
Total minor units
20

## Spanish Major

For the major, students must complete SPAN 300, 301, 304, 305, 306, 307, and three classes at the 400 level, at least one of which must be SPAN 490 or SPAN 491 ( 490 or 491 must be taken in residence at SSU):
SPAN 300 Advanced Spanish Language
SPAN 301 Advanced Composition and Conversation

SPAN 304 Introduction to Spanish Linguistics 4
SPAN 305 Introduction to Literature and Research 4
SPAN 306 Cultures of Spain 4
SPAN 307 Cultures of Latin America 4
plus, any two of:
SPAN 400 Topics in Linguistics 4
SPAN 401 Peninsular Literature 4
SPAN 402 Latin American Literature 4
SPAN 410 Spanish Translation or 4
SPAN 427 Spanish Teaching Methodologies 4
Plus, either:
SPAN 490 Seminar in Linguistics or 4
SPAN 491 Seminar in Literature 4
Total units in the major
36

## Sample Four-Year Program for Bachelor of Arts in Spanish

Note: If students have already completed lower-division classes (or equivalents) before arriving at SSU, they can begin taking advanced-level courses as soon as desired and could take fewer classes per semester than indicated in this plan. In addition to the four-year graduation plan specified, students pursuing the bachelor of arts in Spanish may also elect a five- or six-year plan. Please consult with a Spanish program advisor.

FRESHMAN YEAR:: 30 Units

| Fall Semester (14 Units) | Spring Semester (16 Units) |
| :---: | :---: |
| SPAN 101 (4) | SPAN 102 (4) |
| SPAN 101L (1) | SPAN 102L (1) |
| GE Electives (A2, A3, B4) (9) | SPAN 150 (2) |
|  | GE Electives (C1, B1, A1) (9) |
| SOPHOMORE YEAR:: 30 Units |  |
| Fall Semester (14 Units) | Spring Semester (16 Units) |
| SPAN 201 (4) | SPAN 202 (4) |
| SPAN 201L (1) | SPAN 202L (1) |
| GE Electives (B3, D2, C2, D5) (9) | SPAN 250 (2) |
|  | GE Electives (D3, D4, B2) (9) |
| JUNIOR YEAR:: 36 Units |  |
| Fall Semester (18 Units) | Spring Semester (18 Units) |
| SPAN 300 (4) | SPAN 301 (4) |
| SPAN 305 (4) | SPAN 304 (4) |
| SPAN 306 (4) | SPAN 307 (4) |
| GE UD (E1 and other) (6) | GE UD (C3, D1) (6) |
| SENIOR YEAR:: 19-28 Units |  |
| Fall Semester (11-16 Units) | Spring Semester (8-12 Units) |
| Two SPAN classes at the 400 level | One SPAN class at the 400 level |
| Electives/Minor (4-8) | Electives/Minor (4-8) |
| TOTAL UNITS:: 120 |  |

DIRECTOR, SCHOOL OF PERFORMING ARTS
Jeff Langley
DEPARTMENT OFFICE
Green Music Center 2040
(707) 664-2324

DEPARTMENT CHAIR
Brian S. Wilson
ADMINISTRATIVE COORDINATOR
Dolores Bainter

## Faculty

Brass and Percussion
Pete Estabrook, Trumpet
Ruth Wilson, Horn
Anthony Collins, Trombone and Low Bass
Jennifer Wilsey, Timpani, Percussion

## Jazz

Doug Leibinger, Program Director
Myles Ellis, Vibes
Pete Estabrook, Improv, History, Trumpet
Jim Rothermel, Saxophone
Cliff Hugo, Bass
George Marsh, Drum Set
John Simon, Vocal Combos
Randy Vincent, Guitar

## Keyboard

Marilyn Thompson, Piano, Chamber Music, Classical Instrumental Repertoire
John Simon, Jazz Piano
Yvonne Wormer, Staff Accompanist
Richard Riccardi, Staff Accompanist

## Music Education

Andy Collinsworth, Program Director, Instrumental Conducting and Methods
Bob Worth, Choral Conducting
John Stanley, Elementary Methods
Lynne Morrow, Vocal Pedagogy
Roy Zajac, Woodwind Pedagogy
Ruth Wilson, Brass Pedagogy
Richard Loheyde, String Pedagogy
Jennifer Wilsey, Percussion Pedagogy
Eric Cabalo, Guitar Pedagogy
Musicology And Ethnomusicology
John Palmer, Musicology
Jeff Langley, American Music History
Laxmi G. Tewari, Ethnomusicology

## Performing Ensembles - Vocal

Bob Worth, Chamber Singers, Bach Choir
Laxmi G. Tewari, Indian Singing Ensemble
Lynne Morrow, Opera and Music Theatre
Jenny Bent, University Chorus

## Performing Ensembles - Instrumental

Andy Collinsworth, Symphonic and Chamber Wind Ensembles
Doug Leibinger, Jazz Orchestra (Big Band) and Jazz Ensembles
Marilyn Thompson, Chamber Music and String Orchestra
Bob Affifi, Latin Jazz Band
Ruth Wilson, Brass Ensemble
Jennifer Wilsey, Percussion Ensemble
Eric Cabalo, Guitar Ensemble

## Strings

Richard Loheyde, Violin, Viola
Judiyaba, Cello
Eric Cabalo, Classical Guitar

## Theory/Composition and Musicianship

Brian Wilson, Theory, Analysis and Composition
William Johnson (Emeritus), Composition
Jeff Langley, Composition
John Palmer, Ear Training
Doug Leibinger, Jazz Theory
Jesus Contreras, Music Technology and Composition
Voice
Lynne Morrow, Mezzo Soprano, Diction
Susan Witt-Butler, Soprano
David Burnakus, Baritone
Jenny Bent, Soprano
Bonnie Brooks, Mezzo Soprano

## Woodwinds

Kathleen Reynolds, Flute
Daniel Celidore, Oboe
Roy Zajac, Clarinet
Rufus Olivier, Bassoon

## Ensemble in Residence

Trio Navarro
Roy Malan, Violin
Jill Rachuy Brindel, Cello
Marilyn Thompson, Piano

## Programs Offered

Bachelor of Arts in Music
Applied Music Concentration
Jazz Studies Concentration
Liberal Arts Music Concentration Music Education Concentration

Minor in Music<br>Liberal Arts Concentration Jazz Studies Concentration World Music (Ethnomusicology) Concentration<br>Teaching Credential Preparation in Music

A commitment to active involvement stands at the heart of the music curriculum. Students are involved in many ways-as listeners, performers, composers, critics, or historians. Intelligent and lively participation informs every facet of the department's various degree programs.

The core curriculum for music majors provides a thorough foundation in such essential skills as keyboard facility, theoretical understanding, aural perception, and analysis of a wide range of music literature. All majors gain experience with both the intuitive and the intellectual processes of the art. The curriculum is designed to place the specialized study of music in the setting of a liberal arts education and to serve as a firm basis for careers in a wide variety of professions in music and those related to music.
Three concentrations exist within the bachelor of arts in music. The liberal arts music concentration provides a broad basis from which a student may pursue graduate studies or a variety of careers. The jazz studies concentration trains the student in the techniques and practices of contemporary jazz styles. The applied music concentration is intended for those having a special interest and promise in the following areas

- Vocal/Choral Performance
- Instrumental Performance
- Opera/Music Theatre
- Composition and Music Technology
- World Music Studies

The bachelor of arts in music education prepares students to enter the teaching credential program in the School of Education.

All students are expected to consult with a music advisor prior to registering each semester; students in the Applied Music concentration should consult an advisor to plan appropriate electives for the specific area of study selected. Any student planning to do graduate work in music should consult a music advisor in time to plan a program that will support the intended graduate specialty. Students planning careers in business or media should consider minors in communications studies or business administration. The Music Department is a fully accredited member of the National Association of Schools of Music.

## Audition and Proficiency Expectations for Entering and Transfer Students

In order to be accepted as a music major, one must be admitted to the University AND must also successfully complete a Music Department audition.

## Auditions

The Department of Music requires all prospective music majors to complete an audition on their major instrument/voice. Students living more than 250 miles from campus may send recorded auditions (CD or DVD). To schedule an audition, use the Audition Request Form found on the department website (also available in the department office).

All auditions, live or recorded, shall include two pieces in contrasting styles that can be performed within the 10-minute limit that demonstrate accurate rhythms, pitch control, and interpretive awareness. Accompaniment is not necessary.

## Additional Requirements

Instrumentalists shall prepare two major scales and one minor scale in all three forms - natural, harmonic, and melodic.

Jazz students shall prepare two contrasting tunes; Aebersold-type play-along accompaniments are acceptable. Jazz drummers must demonstrate various styles, including medium and up tempo swing, jazz, waltz and 3-4 different Latin and/or contemporary rhythms. They may submit a tape of a band in which they are featured. Music education students shall write a one-paragraph statement on why they wish to teach.

Music theatre students are encouraged to submit a DVD of themselves performing (singing and acting) in a musical

Students may include more than one instrument/voice or musical style on their audition.

Please use the Audition Request Form to schedule auditions.
Send recorded auditions along with a cover letter to:
Music Department (Audition Materials)
Sonoma State University
1801 E. Cotati Ave.
Rohnert Park, CA 94928

## Scholarships

All music majors may also audition for a variety of scholarships. Scholarship audition information and application can be found on the department website. The scholarship audition can also serve as the program audition. Students living more than 250 miles from campus may send recorded auditions (CD or DVD).

Fill out the scholarship application and send all required materials to:

Music Department Scholarship Committee
Sonoma State University
1801 E. Cotati Avenue
Rohnert Park, CA 94928

## Proficiency Expectations

Basic keyboard skills and the ability to read standard musical notation are prerequisites to the music major curriculum. All entering and transfer students will be given placement examinations in piano, music theory, and aural skills (sight-singing and dictation) during
orientation. Students with inadequate preparation in keyboard will be expected to take MUS 109 Intensive Keyboard Lab I. Students without background in any of these areas will also be expected to take MUS 106 Fundamentals.
Jazz studies majors, whether continuing or transfer students, must complete MUS 320, Ear Training IV; MUS 312, Jazz Harmony and Arranging II; MUS 389, Jazz Improvisation III; MUS 489, Jazz Improvisation IV; MUS 392, Jazz Piano II; and MUS 412, Jazz Composition in residence.
Basic keyboard proficiency is a prerequisite to enrollment in MUS 110 Theory I Diatonicism. MUS 320 and 309A/B (or 392) are prerequisite to enrollment in certain upper-division music courses.

## Lower-Division Program

The core of the lower-division program for music majors is a sequence of courses in musicianship, theory, and music literature. This sequence is a comprehensive approach to ear training in its broadest sense. It includes sight-singing, dictation, counterpoint, harmony, and historic and stylistic considerations as they relate to the development of aural and written skills. Materials and solfège techniques from a variety of musical styles are used. Lower-division students are encouraged to enroll in 300 -level music ensembles.

## Upper-Division Program

The upper-division program is designed to integrate studies of theory, musicianship, keyboard and aural skills, music history and analysis. Students who wish to specialize in jazz, music education, or applied music will be required to take classes that develop skills specific to these areas. MUS 310, Theory III and MUS 410, Theory IV must be taken in residence.

## Capstone Experience

Liberal arts music majors and students in jazz studies are required to complete a senior project. The senior project, MUS 490, may take the form of directed research leading to a lecture-demonstration, a recital, an extended composition, a student instructed course, the preparation of a performing edition, or another project of substantial effort. Students enrolled in the applied music concentration and in music education must present a senior recital, MUS 491.

## Performance Ensemble Requirement

Ensemble/Performance requirements for all students in applied, liberal arts, jazz studies and music education
The Music Department regards continuous experience in active music-making to be an essential part of college music study. To provide this experience, the department offers a wide range of ensembles both vocal and instrumental.
All music majors (applied, jazz studies, liberal arts, and music education) must declare a major performance medium (instrument or voice) upon entering their program of study.
Every music major is required to be in at least one major performing ensemble during each semester of residence in which he or she
plays his or her declared performance medium (instrument or voice).
In addition, all instrumentalists are required to participate in a major choral ensemble for one semester. Also, vocalists in the applied and music education concentrations must participate in a major instrumental ensemble for one semester. Students may substitute a minor ensemble for a major ensemble no more than twice.
Specific ensemble requirements for students in applied and liberal arts The following are the major ensembles for vocalists in applied and liberal arts (at least half of these must be in a choral ensemble):

SSU Chorus
Chamber Singers
Musical Theatre Production
Musical Theatre Scenes Workshop
The major ensemble for woodwind, brass, and percussion in applied and liberal arts are the following:
Symphonic Wind Ensemble
Jazz Orchestra
The major ensemble for string, guitar, and piano players will be determined in consultation with the department chair and the area coordinator.
Students are highly encouraged to also include minor ensembles in their course of study. Minor ensembles for vocalists are Chamber Singers, Chamber Music, Bach Choir, and Indian Singing Ensemble. Minor ensembles for instrumentalists in applied, liberal arts, and music education are Chamber Music, Chamber Wind Ensemble, Brass Ensemble, Percussion Ensemble, Guitar Ensemble, and the Jazz Ensembles.

## Specific ensemble requirements for students with concentration in jazz studies

The following are the major ensembles for students in the jazz studies concentration:

Concert Jazz Ensembles<br>Latin Jazz Ensemble<br>Jazz Orchestra (at least one semester)<br>Symphonic Wind Ensemble (at least one semester)

Students in the jazz studies concentration enrolled in Symphonic Wind Ensemble and/or SSU Chorus must also participate in a major or minor jazz ensemble during that semester.

## Specific ensemble requirements for students majoring in music education

The following are the major ensembles for vocal students in music education: (At least half of these must be in a choral ensemble.)

SSU Chorus<br>Chamber Singers<br>Musical Theatre Production<br>Musical Theatre Scenes Workshop

The following is the major ensemble for woodwind, brass and percussion students majoring in music education:

Symphonic Wind Ensemble
The major ensemble for string, guitar and piano players will be determined in consultation with the department chair and director of music education:

## Chamber Music Ensembles

Guitar Ensemble

## String Orchestra

In addition, instrumentalists majoring in music education must participate at least one semester in a vocal ensemble and a jazz ensemble, and vocalists majoring in music education must participate at least one semester in Symphonic Wind and a jazz ensemble.

## Music Use Fee and Instrument Checkout

A nonrefundable fee of $\$ 25$ per semester is charged for use of Music Department facilities and equipment. In addition, a \$20 deposit is charged for checking out a departmental instrument.

## Private Instruction

The department funds 30 -minute lessons for music students. Additional lesson time must be paid for by the student. Rates for private lessons are competitive.
All music majors will take studio instruction in their performing medium. It is department policy that music majors are required to study their major performance medium (instrument or voice) with an SSU faculty member or an approved instructor.

## Repertoire Classes and Forums

All music majors must be enrolled in a music repertoire or forum class each semester in residence.

Classical Instrumental Repertoire Class (for classical instrumentalists)

Vocal Repertoire Class (for vocalists)
Jazz Forum (for jazz students)
Composers Forum (for student composers)
Guitar Ensemble (for guitarists)

## Jury

Before the end of the sophomore year, students in applied music and music education must successfully complete a Junior Qualifying Jury in order to officially continue as a major. Incoming transfer students entering as juniors, will be required to pass a Junior Qualifying Jury prior to the end of their first semester in residence.

## Bachelor of Arts in Music

## Applied Music Concentration

| Degree Requirements | Units |
| :--- | ---: |
| General education | 45 |
| Major requirements | 68 |
| Preparatory and/or general electives | 7 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Requirements For the Major

The applied music concentration is intended for students who show special aptitude for careers as performers. It is expected that a student graduating in applied music will have reached a level of at least semiprofessional competence.
Lower-division students are admitted to the applied music concentration on the basis of faculty recommendation. Admission to the upper-division is by a juried audition for performers and a portfolio review for composers. These take place at the end of the sophomore year (or, for transfer students, prior to entering the junior year).
Students interested in world music, composition and/or music technology studies should consult a music advisor for information on an advisory plan. Complete all the following:

## Preparatory

(Credit not applicable toward major; students may challenge by exam)
MUS 106 Fundamentals 3
MUS 109 Intensive Keyboard Lab I 2
MUS 209 Intensive Keyboard Lab II 2
Theory/Musicianship (20)
MUS 110 Theory I: Diatonicism 3
MUS 210 Theory II: Chromaticism 3
MUS 310 Theory III: Form and Analysis 3
MUS 410 Theory IV: 20th Century Techniques 3
MUS 120 Ear Training I 2
MUS 220 Ear Training II 2
MUS 320 Ear Training III 2
MUS 420 Ear Training IV 2
History/Literature (16)
MUS 150 Survey of U.S. Music (satisfies GE, C1) 3
MUS 251 History of Western Music - Ancient World to 17503
MUS 252 History of Western Music - 1750 to the Present 3
MUS 300 Seminar (various topics) 3
MUS 350 Survey of World Music (satisfies GE, C3) 4
Applied Skills (5)
Two of the following four courses: (2 units)
MUS 292 Jazz Piano I
MUS 392 Jazz Piano II
MUS 309A Keyboard Proficiency Lab
MUS 309B Keyboard Proficiency Lab
MUS 491 Senior Recital
Private instruction (each semester in residence)
Transfer students must take lessons for every semester in residence.

Sample Four-Year Program for Bachelor of Arts in Music - Applied Music Concentration

FRESHMAN YEAR:: 29 Units

| Fall Semester (15 Units) | Spring Semester (14 Units) |
| :---: | :---: |
| ENGL 101 (GE area A2) (3) | PHIL 101 (GE area A3) (3) |
| GE Mathematics (GE area B4) (3) | MUS 110 (3) |
| MUS 106 (3) | MUS 120 (2) |
| MUS 109 (2) | MUS 209 (2) |
| MUS Elective (1) | Private Instruction (1) |
| Major Performing Ensemble (1) | Music Elective (1) |
| Private Instruction (1) | Major Performing Ensemble (1) |
| Repertory Class (1) | Repertory Class (1) |
| SOPHOMORE YEAR:: 33 Units |  |
| Fall Semester (18 Units) | Spring Semester (15 Units) |
| HUMS 200 (GE area A1) (3) | GE (area D2) (3) |
| GE (area D3) (3) | MUS 310 (3), MUS 320 (2) |
| MUS 210 (3), MUS 220 (2) | MUS 252 (3) |
| MUS 251 (3) | MUS 309B (1) |
| MUS 309A (1) | Major Performing Ensemble (1) |
| Major Performing Ensemble (1) | Private Instruction (1) |
| Private Instruction (1) | Repertory Class (1) |
| Repertory Class (1) |  |
| JUNIOR YEAR:: 30 Units |  |
| Fall Semester (17 Units) | Spring Semester (13 Units) |
| GE (area E) (3) | GE (area D1) (3) |
| GE (area D4) (3) | GE (area B1) (3) |
| MUS 150 (GE area C1) (3) | MUS 300 (3) |
| MUS 410 (3) | Major Performing Ensemble (1) |
| MUS 420 (2) | Private Instruction (1) |
| Major Performing Ensemble (1) | Repertory Class (1) |
| Private Instruction (1) | Music Elective (1) |
| Repertory Class (1) |  |

SENIOR YEAR:: 26 Units

| Fall Semester (13 Units) | Spring Semester (13 Units) |
| :--- | ---: |
| GE (area B2) (3) | GE (area B3) (3) |
| GE (area D5) (3) | GE (area C2) (3) |
| Major Performing Ensemble (1) | MUS 491 (3) |
| Private Instruction (1) | Major Performing Ensemble (1) |
| MUS 350 (area C3) (4) | Private Instruction (1) |
| Repertory Class (1) | Repertory Class (1) |
|  | Music Elective (1) |

TOTAL UNITS:: 120

Music Electives (minimum of 3 units)
Courses will vary according to area(s) of interest - see department advisor.
Major Ensemble (each semester in residence)
8
(See section on performance ensemble requirement. Credit applicable toward graduation, but not the major.)

Repertory Class or Forum
Total units in the major

## Jazz Studies Concentration

| Degree Requirements | Units |
| :--- | ---: |
| General education | 45 |
| Major requirements | 68 |
| Electives | 7 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Requirements For the Major

The jazz studies concentration is designed to furnish the training and background needed for students seeking to work as jazz performers, arrangers, composers, or teachers.

Students planning to pursue careers as jazz performers should take private instruction in their major instrument or in voice as a part of their program. These students normally enroll each semester in at least one music department ensemble appropriate to their area of interest. They should also seek opportunities for performance off campus in a wide variety of performing environments.

Complete all the following:

## Preparatory (credit not applicable toward major; students may challenge by exam)

MUS 106 Fundamentals of Music Theory 3
MUS 109 Intensive Keyboard Lab I 2
MUS 120 Ear Training I 2
MUS 189 Jazz Improvisation I 1
MUS 209 Intensive Keyboard Lab II 2
Theory/Musicianship (15)
MUS 110 Theory I 3
MUS 212 Jazz Harmony and Arranging I 3
MUS 312 Jazz Harmony and Arranging II 3
MUS 220 Ear Training II 2
MUS 320 Ear Training III 2
MUS 420 Ear Training IV 2
History/Literature (12)
MUS 252 History of Western Music - 1750 to the Present 3
MUS 342 History of Jazz 3
And two of the following four courses: (6 units) 6
MUS 150 Survey of U.S. Music (satisfies GE, C1)
MUS 251 History of Western Music - Ancient World to 1750
MUS 300 Seminar (various topics)
MUS 350 Survey of World Music (satisfies GE, C4)

## Sample Four-Year Program for Bachelor of Arts in Music - Jazz Studies Concentration

FRESHMAN YEAR:: 32 Units

| Fall Semester (17 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| ENGL 101 (GE area A2) (3) | PHIL 101 (GE area A3) (3) |
| GE Math (GE area B4) (3) | Music Elective (1) |
| Major Performing Ensemble (1) | Private Instruction (1) |
| MUS 109 (2) | MUS 389 (3) |
| MUS 342 (3) | MUS 209 (2) |
| Elective (1) | Major Performing Ensemble (1) |
| Private Instruction (1) | Music 120 (2) |
| Music 106 (3) | Music 189 (1) |
| Jazz Forum (1) | Jazz Forum (1) |
|  |  |
|  |  |

Fall Semester (17 Units)
HUMS 200 (GE area A1) (3)
MUS 212 (3)
MUS 220 (2)
MUS 292 (1)
Major Performing Ensemble (1)
MUS 489 (3)
Private Instruction (1)
Jazz Forum (1)

JUNIOR YEAR:: 29 Units

Fall Semester (15 Units)
GE (area E) (3)
GE (area D4) (3)
MUS 150 (GE area C1) (3)
MUS 412 (3)
Major Performing Ensemble (1)
Private Instruction (1)
Jazz Forum (1)

Spring Semester (14 Units)
GE (area D2) (3)
GE (area D1) (3)
GE (area B1) (3)
Major Performing Ensemble (1) Private Instruction (1)

Music 420 (2)
Jazz Forum (1)
SENIOR YEAR:: 29 Units

Fall Semester (17 Units)
GE (area B2) (3)
GE (area D5) (3)
MUS 350 (GE area C3) (4)
Major Performing Ensemble (1)
Private Instruction (1)
Jazz Forum (1)
Music Elective (1)
Music 312 (3)

Spring Semester (16 Units)
GE (area D3) (3)
GE (area C2) (3) MUS 320 (2) MUS 392 (1)
Major Performing Ensemble (1) Private Instruction (1) Music Elective (1) Jazz Forum (1) Music 110 (3)

TOTAL UNITS:: 120

## Applied Skills (16)

MUS 292 Jazz Piano I 1
MUS 289 Jazz Improvisation II 3
MUS 392 Jazz Piano II 1
MUS 412 Jazz Composition 3
MUS 389 Jazz Improvisation III 3
MUS 489 Jazz Improvisation IV 3
MUS 490 Senior Project 2
Music Electives (minimum of 3 units) 3
Courses will vary according to area(s) of interest-see department advisor.
Private Instruction (each semester in residence)
Transfer students must take lessons for every semester in residence.
Jazz Forum (each semester in residence)
Ensembles (each semester in residence) 8
(See section on performance ensemble requirement.)
Total units in the major

## Music Education Concentration

Degree Requirements Units
General education (including 6 units in music) 51
Major requirements ( 86 units minus 6 units) 80
Preparatory 0-7
Total units needed for graduation 131-137

## Requirements for the major

The music education concentration is a B.A. program that provides the skills necessary for teaching music in public or private schools in California. It is recommended for anyone planning a teaching career in music.
The program consists of a core of basic music major requirements, plus specialized courses for prospective teachers of vocal, instrumental, and general music in elementary, junior high, and senior high schools.

Preparatory (credit not applicable toward major; students may
challenge by exam)

MUS 106 Fundamentals of Music Theory 3

MUS 109 Intensive Keyboard Lab I 2

MUS 209 Intensive Keyboard Lab II 2

## Theory/Musicianship (20)

MUS 110 Theory I: Diatonicism 3
MUS 210 Theory II: Chromaticism 3
MUS 310 Theory III: Form and Analysis 3
MUS 410 Theory IV: 20th Century Techniques 3
MUS 120 Ear Training I 2
MUS 220 Ear Training II 2
MUS 320 Ear Training III 2
MUS 420 Ear Training IV 2

## History/Literature (13)

MUS 150 Survey of U.S. Music OR

MUS 342 History of Jazz
MUS 251 History of Western Music: Ancient World to 1750
MUS 252 History of Western Music: 1750 to Present
MUS 350 Survey of World Music
Applied Skills (20)
MUS 259 Music Technology: Tools and Applications
MUS 289 Jazz Improvisation II
MUS 314 Orchestration
MUS 400 Music for the Classroom
MUS 401 Conducting Technique
MUS 402 Choral Conducting and Methods
MUS 403 Instrumental Conducting and Methods
MUS 491 Senior Recital
And two of the following four courses (2 units)
MUS 292 Jazz Piano I
MUS 392 Jazz Piano II
MUS 309A Keyboard Proficiency
MUS 309B Keyboard Proficiency
Methods Courses (7)
MUS 415 Vocal Methods
MUS 418 Guitar Methods
MUS 422 Strings Methods
MUS 423 Woodwinds Methods
MUS 424 Brass Methods
MUS 429 Percussion Methods
MUS 440 Vocal Instrumental Proficiency Jury
Private Instruction (each semester in residence)
Transfer students must take lessons for every semester in residence.
Major Ensembles (see specific ensemble for
music education majors)
тusic education majors)
Each semester in residence
Additional ensembles

## Repertory Class or Forum

Total units in the major (6 included in GE)

## Sample Four-Year Program for Bachelor of Arts in Music - Music Education Concentration

FRESHMAN YEAR:: 30 Units
Fall Semester (15 Units)
ENGL 101 (GE area A2) (3)
GE Mathematics (GE area B4) (3)
MUS 150 (GE area C1) (3)
MUS 289 (2)
MUS 115 (1)
Private Lessons (1)
Major Performing Ensemble (1)
Repertory Class (1)

SOPHOMORE YEAR:: 36 Units

Fall Semester (19 Units)
GE (area D3) (3)
MUS 210 (3)
MUS 220 (2)
MUS 251 (3)
MUS 259 (3)
MUS 424 (1)
Private Lessons (1)
Major Performing Ensemble (1)
MUS 309A (1)
Repertory Class (1) Additional Ensemble (1)
JUNIOR YEAR:: 33 Units
Fall Semester (18 Units)
GE (area D4) (3)
MUS 350 (GE area C3) (4)
MUS 400 (2), MUS 422 (1)
Private Lessons (1)
Major Performing Ensemble (1)
MUS 420 (2)
Music 410 (3)
Repertory Class (1)

SENIOR YEAR:: 36 Units

## Fall Semester (18 Units)

GE (area B2) (3), GE (area D5) (3)
GE (area E) (3)
MUS 402 (3)
Private Lessons (1)
Major Performing Ensemble (1)
*EDSS 418 (3)
Repertory Class (1)

Spring Semester (18 Units)
GE (area B3) (3), GE (area C2) (3)
MUS 403 (3), MUS 490 (1)
Private Lessons (1)
Major Performing Ensemble (1)
MUS 440 (1)
*EDSP 433 (3)
Repertory Class (1)

## TOTAL UNITS:: 137

* 9 Units are prerequisites for admission to the Single Subject program, not counted in major.


## Sample Four-Year Integrated Program for Bachelor of Arts in Music (Music Education Concentration) and Teaching Credential

## FRESHMAN YEAR:: 32 Units

## Fall Semester (16 Units)

ENGL 101 (GE area A2) (3)
GE Mathematics (GE area B4) (3)
MUS 150 (GE area C1) (3)
MUS 289 (2), MUS 115 (1), MUS 118 (1)
Private Lessons (1)
Major Performing Ensemble (1)
Repertory Class (1)
Spring Semester (16 Units)
PHIL 101 (GE area A3) (3)
GE (area D2) (3)
MUS 123 (1), MUS 129 (1) MUS 110 (3), MUS 120 (2) Private Lessons (1)
Major Performing Ensemble (1) Repertory Class (1)

SOPHOMORE YEAR:: 36 Units

Fall Semester (19 Units)
GE (area D3) (3)
MUS 210 (3), MUS 121 (2)
MUS 251 (3)
MUS 259 (3), MUS 424 (1), MUS 422 (1)
Private Lessons (1)
Major Performing Ensemble (1)
MUS 309A (1)
Spring Semester (17 Units)
*EDUC 417 (GE area D1) (3)
MUS 310 (3), MUS 220 (2)
MUS 401 (2), MUS 440 (1)
MUS 252 (3)
MUS 309B (1)
Private Lessons (1)
Major Performing Ensemble (1)

SUMMER SESSION:: 6 Units
HUMS 200 (GE area A1) (3)
EDSS 418 (3)
JUNIOR YEAR:: 34 Units

Fall Semester (19 Units)
GE (area E) (3), GE (area D4) (3)
MUS 350 (GE area C3) (4)
MUS 400 (2), MUS 402 (3)
Private Lessons (1)
Major Performing Ensemble (1)
MUS 420 (2)
Spring Semester (16 Units) GE (area B1) (3), EDSP 433 (3)

MUS 403 (3)
MUS 300 (3)
MUS 314 (2) Private Lessons (1) Major Performing Ensemble (1)

SUMMER SESSION:: 6 Units
GE (area B3) (3)
GE (area C2) (3)

## SENIOR YEAR:: 35 Units

Fall Semester (17 Units)
GE (area B2) (3), GE (area D5) (3)
GE (area C3) (3)
EDSS 444 (3)
EDSS 443A/B (3)
Private Lessons (1)
Major Performing Ensemble (1)

Spring Semester (18 Units) EDSS 458 (12), EDSS 459 (3) MUS 490 (1)
Private Lessons (1)
Major Performing Ensemble (1)

## Teaching Credential Preparation In Music

The music education curriculum stated above is identical to the subject matter competency portion of the teaching credential.

In order to acquire the music teaching credential, the student must complete this concentration, a B.A., and a two-semester program in the School of Education. The music education advisor will guide the student through the program.

Nine units of prerequisites are needed to enter the credential program: EDSS 417, EDSS 418, EDSP 433.

The Integrated Program is available to freshmen. This program prepares students to teach music in the elementary schools, middle schools, junior high schools, and high schools in California. Students in this program take coursework in education along with music and general education throughout their undergraduate years, eventually graduating with a B.A. and a teaching credential simultaneously. The Integrated Program requires formal application to SSU's Single Subject program prior to the junior year.

## Liberal Arts Music Concentration

| Degree Requirements | Units |
| :--- | ---: |
| General education | 45 |
| Major requirements | 68 |
| Preparatory and/or Electives | 7 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Requirements for the Major

The courses listed below constitute the liberal arts concentration in music. A student satisfactorily completing these courses, along with other University requirements, will earn a B.A. with a major in music. All students are encouraged to consult an advisor about arranging individually tailored programs of study.

Complete all the following:

## Preparatory (credit not applicable toward major; students may challenge by exam)

MUS 106 Fundamentals ..... 3
MUS 109 Intensive Keyboard Lab I ..... 2
MUS 209 Intensive Keyboard Lab II ..... 2
Theory/Musicianship (20)
MUS 110 Theory I: Diatonicism ..... 3
MUS 210 Theory II: Chromaticism ..... 3
MUS 310 Theory III: Form and Analysis ..... 3
MUS 410 Theory IV: 20th Century Techniques ..... 3
MUS 120 Ear Training I ..... 2
MUS 220 Ear Training II ..... 2
MUS 320 Ear Training III ..... 2
MUS 420 Ear Training IV ..... 2
History/Literature (16)
MUS 150 Survey of U.S. Music (GE, Area C1) ..... 3
MUS 251 History of Western Music - Ancient World to 1750 ..... 3
MUS 252 History of Western Music - 1750 to the Present ..... 3
MUS 300 Seminar (various topics) ..... 3

| Sample Four-Year Program for Bachelor of Arts in Music - Liberal Arts Music Concentration |  |
| :---: | :---: |
| FRESHMAN YEAR:: 30 Units |  |
| Fall Semester (14 Units) | Spring Semester (16 Units) |
| ENGL 101 (GE area A2) (3) | PHIL 101 (GE area A3) (3) |
| GE MATH (GE area B4) (3) | HUMS 200 (GE area A1) (3) |
| MUS 106 (3) | MUS 110 (3) |
| MUS 109 (2) | MUS 120 (2) |
| Major Performing Ensemble (1) | Major Performing Ensemble (1) |
| MUS 209 (2) | Private Instruction (1) |
| Private Instruction (1) | Music 209 (2) |
| Repertory Class (1) | Repertory Class (1) |
| SOPHOMORE YEAR:: 33 Units |  |
| Fall Semester (18 Units) | Spring Semester (15 Units) |
| GE (area D2) (3) | GE (area D3) (3) |
| MUS 150 (GE area C1) (3) | MUS 310 (3) |
| MUS 210 (3) | MUS 320 (2) |
| MUS 220 (2) | MUS 252 (GE area C1) (3) |
| MUS 309A (1) | Major Performing Ensemble (1) |
| Major Performing Ensemble (1) | MUS 309B (1) |
| MUS 251 (3) | Private Instruction (1) |
| Private Instruction (1) | Repertory Class (1) |
| Repertory Class (1) |  |


| JUNIOR YEAR:: 31 Units |  |
| :--- | ---: |
| Fall Semester (17 Units) | Spring Semester (14 Units) |
| GE (area E) (3) | GE (area D1) (3) |
| GE (area D4) (3) | GE (area B1) (3) |
| MUS 350 (GE area C3) (4) | MUS 300 (3) |
| Major Performing Ensemble (1) | Music Elective (2) |
| Music 410 (3) | Major Performing Ensemble (1) |
| Private Instruction (1) | Private Instruction (1) |
| Music 420 (2) | Repertory Class (1) |
| Repertory Class (1) |  |

SENIOR YEAR:: 29 Units

Fall Semester (15 Units)
Spring Semester (14 Units)

| GE (area B2) (3) | GE (area B3) (3) |
| :--- | ---: |
| GE (area D5) (3) | GE (area C2) (3) |
| GE (area C3) (3) | MUS 490 (2) |
| Major Performing Ensemble (1) | Major Performing Ensemble (1) |
| Music Elective (3) | Repertory Class (1) |
| Private Instruction (1) | Private Instruction (1) |
| Repertory Class (1) |  |

TOTAL UNITS:: 123

## Applied Skills (4)

Two of the following four courses: (2 units) 2
MUS 292 Jazz Piano I
MUS 392 Jazz Piano II
MUS 309A Keyboard Proficiency Lab
MUS 309B Keyboard Proficiency Lab
MUS 490 Senior Project
2
Private Instruction (each semester in residence)
8
Transfer students must take lessons for every semester in residence.

## Music Electives (minimum of 4 units)

Courses will vary according to area(s) of interest-see department advisor.
Ensembles (each semester in residence)
See section on performance ensemble requirement.
Repertory Class or Forum
Total units in the major

## Minors in Music

The Music Department offers three minors-the liberal arts music minor, jazz studies music minor, and world music (ethnomusicology) minor. Students contemplating a minor in music should consult the Music Department for advising early in their academic careers. At least 6 units of the minor must be completed at Sonoma State University.

## Liberal Arts Concentration

## Complete all the following:

MUS 105 Music Theory for Non-Majors
or MUS 106 Fundamentals of Music Theory 3
MUS 110 Theory I: Diatonicism 3
MUS 120 Ear Training I 2
Ensemble courses 4
Elective in music 2
Upper-division lecture course 3
And one of the following courses: (3 units) 3
MUS 150 Survey of U.S. Music
MUS 250 Survey of European Music (3)
Ancient World to 1750

Total units in the minor

## Jazz Studies Concentration

Complete all the following:
MUS 110 Theory I: Diatonicism ..... 3
MUS 120 Ear Training I ..... 2
MUS 212 Jazz Harmony and Arranging I ..... 3
MUS 289 Jazz Improvisation II ..... 3
MUS 292 Jazz Piano I ..... 1
MUS 342 History of Jazz ..... 3
MUS 389 Jazz Improvisation III ..... 3
Performing Ensemble ..... 2
Total units in the minor ..... 20
World Music (Ethnomusicology) Concentration
Two of the following courses: ..... 6
MUS 150 Survey of U.S. Music
MUS 250 Survey of European Music
MUS 343 Studies in Musical Genres
MUS 344 Studies in Musical Composers
CALS 368 Chicano Latino Music
All of the following:
MUS 105 Music Theory for Non-Majors ..... 3
MUS 350 Survey of World Music ..... 4
MUS 120 Ear Training I ..... 2
THAR 373 Dances of the World ..... 3
MUS 353 Indian Singing Ensemble $(1,1)$ ..... 2
Recommended but not required:
MUS 300 Seminar ..... 3
MUS 480 Special Topics ..... 1
Total units in the minor ..... 20

## NATIVE AMERICAN STUDIES

## PROGRAM OFFICE

## Nichols Hall 214

(707) 664-2458

## COORDINATOR

Elenita Strobel
ADMINISTRATIVE COORDINATOR
Perce Smith

## Faculty

Edward D. Castillo / California Indian Culture and History, American Indian Religion \& Philosophy, Native American Education and North American History
Gregory Sarris / Native American Literature

## Program Offered

## Minor in Native American Studies

The Native American Studies program is designed to provide a minor with a multidisciplinary approach to Native Americans through ethnography, history, sociology, and the humanities. By approaching the multiplicity of Indian cultures from a variety of academic perspectives, a deeper understanding of native societies, past and present, will emerge. The program is designed to present a variety of American Indian experiences and issues within the wider context of human history and evolution. The program is especially interested in providing teachers, community service personnel, tribal administrators, and other interested persons with useful skills in dealing with indigenous/native communities. Special emphasis will be placed on assisting educators with practical and theoretical approaches to Indian education. Students in Native American studies are encouraged to apply toward the NAMS minor selected courses from history, anthropology, art, Chicano and Latino studies, American multicultural studies, and education.

Students may develop a special major in Native American studies; those interested should review the guidelines for special majors and consult the program coordinator.

## Minor in Native American Studies

The suggested pattern for completing the minor is:

## Minor Core Requirements

NAMS 200 Introduction to Native Americans or NAMS 205 Introduction to Native American Arts 3
NAMS 305 North American Indian History ..... 4
NAMS 346 Philosophic Systems and Sacred Movements in Native North Americans ..... 3
Total units in minor core ..... 10
Minor Electives
Select 10 units from the following courses:
NAMS 300 Experimental ..... 1-5
NAMS 354 Native American Literature ..... 3
NAMS 338 Native Americans and the Cinema ..... 3
NAMS 400 Special Topics in Native American Studies ..... 1-4
NAMS 410 Seminar in an Individual Native American Culture ..... 4
NAMS 412 Native California History and Culture ..... 4
NAMS 414 Native American Cultures of the Southwest ..... 4
NAMS 418 Regional Historical Studies ..... 4
NAMS 420 Fundamentals of Native American Education ..... 1-4
NAMS 430 Advanced Native American Workshop ..... 4
NAMS 442 Contemporary Affairs of Native Americans of California ..... 4
NAMS 495 Special Studies ..... 1-4
Total units in minor electives ..... 10
20
(707) 664-2465

Fax: (707) 664-2653
www.sonoma.edu/nursing
DEPARTMENT CHAIR
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Anita Catlin
Liz Close
Carole Heath
Deborah Kindy
Jeanette Koshar
Deborah A. Roberts
Wendy Smith
Melissa Vandeveer
Mary Ellen Wilkosz

## Programs Offered

## (Fully Accredited by the National League for Nursing Accreditation Commission)

Bachelor of Science in Nursing<br>Prelicensure B.S.N.<br>R.N. to B.S.N.<br>Master of Science in Nursing<br>Family Nurse Practitioner<br>Leadership and Management (concentration in Nursing Administration, Clinical Nurse Leader, or Nursing Education)<br>Direct Entry Master of Science in Nursing (Entry Level Master's Program)<br>Post-Master's Certificate, Family Nurse Practitioner

Sonoma State University's mission is reflected in the Department of Nursing's commitment to provide a foundation for lifelong learning and graduate nurses who practice within a broad cultural perspective, affirm intellectual and aesthetic achievements as a part of the human experience, develop professional leadership, foster flexibility and resilience, and contribute to the health and well-being of the world at large. The Department of Nursing recognizes nursing as a nurturing response, based upon a blend of art and science, occurring within a subjective and objective environment with the aim of developing the well-being of both nurse and client (client as individuals, families, communities, and organizations). Consistent with the philosophy and
objectives is the consideration of students as unique individuals with varied ethnic and cultural backgrounds, learning styles, and goals.

The Department of Nursing provides opportunities for learning using a variety of traditional and technology-mediated strategies. Courses may be taught using televideo conferencing technology, interactive and real-time electronic communications via computer for lecture, small group and seminar discussions, self-paced and self-directed independent study, and Internet tools that support lifelong intellectual and professional development.

The Department of Nursing enjoys a collaborative relationship with the health care delivery community within its service area and beyond. Consequently there are many clinical opportunities available. Students are placed in a variety of community-based hospitals and health care agencies. Graduates of both the baccalaureate and master's programs are well prepared for careers in a variety of health care settings and roles in the community.

Sonoma State University's nursing programs are approved by the California State Board of Registered Nursing and accredited by the National League for Nursing Accrediting Commission, from which information about tuition, fees, and length of program may be obtained, either in writing or by telephone at National League for Nursing, 350 Hudson Street, New York, NY 10014, (212) 989-9393.

## Bachelor of Science in Nursing

The undergraduate nursing program provides two entry options to obtain a baccalaureate degree in nursing:

1. A prelicensure program option that prepares the student to become a licensed Registered Nurse (R.N.); and
2. An R.N.-B.S.N. program option for the licensed R.N. with an associate degree or the equivalent.

All graduates of the baccalaureate program are prepared to plan and provide patient care; to teach patients, families, and staff; and to provide leadership in the delivery of health care services. The bachelor of science in nursing program offers students an opportunity to become a liberally educated professional, qualified for certification as a public health nurse, and completely prepared for graduate education in nursing. The prelicensure option also prepares the graduate for the R.N. licensure examination.

Eligible applicants should visit www.sonoma.edu/nursing for further information.

## Prelicensure B.S.N. Option

The prelicensure option consists of two components: the prenursing curriculum in which the student enrolls in the prerequisite courses for the nursing program; and the prelicensure curriculum, in which the student is admitted on a competitive basis to take the courses required for R.N. licensure and complete requirements for the bachelor of science in nursing degree.

The prerequisite courses may be taken at either Sonoma State University or another university or community college. For admission to the prelicensure option of the B.S.N. program, SSU students must submit a supplemental application to the Nursing Department between November 1 and February 28. Transfer students must submit an application to SSU and a supplemental application to the Nursing Department. Applications are available on the department's website at www.sonoma.edu/nursing.

## Admission to Pre-Nursing Status (for the prelicensure option)

Students applying directly from high school must meet the following criteria:

1. Standard SSU admission criteria.
2. High school chemistry and biology with a GPA of 3.00 (B) or better.
3. Overall high school GPA of 3.00 or better.
4. Eligibility Index of 3700 or higher

Community college transfer students must meet the following criteria:

1. Standard SSU transfer criteria.
2. B average in nursing prerequisite science courses.
3. Overall college GPA of 3.00 or higher.

## Admission to the Prelicensure Option (final three years of degree program)

Nursing is an impacted program and therefore requires a supplemental application to the Nursing Department in addition to the application to Sonoma State University. Students applying for admission to the prelicensure option in the B.S.N. program must submit:

1. Transcript verification of completion of GE categories A (Written and Oral Analysis, Fundamentals of Communication, and Critical Thinking) and B (Natural Sciences and Mathematics [Statistics required for Nursing]);
2. Overall GPA of 3.00 or higher;
3. GPA of 3.00 or higher in prerequisite science courses: BIOL $220,218,224$, and CHEM 105 or equivalent;
4. Results of the Test of Essential Academic Skills (TEAS);
5. Health care experience (written verification of at least 50 hours of volunteer or paid work in a setting where the role of registered nurses can be readily observed); and
6. Essay (criteria are included in the application packet).

| Requirements for the Prelicensure B.S.N. Option | Units |
| :--- | ---: |
| General education | $* 48$ |
| Major requirements | 58 |
| Support courses | 14 |
| General electives | 4 |
| Total units needed for graduation | $\mathbf{1 2 4}$ |

[^2]Required Courses for the Prelicensure Option, Bachelor of Science in Nursing

YEAR 1 (Pre-Nursing)

## Fall Semester

Spring Semester
BIO 115 (3)
BIO 218 (4)
CHEM 105 (5)
BIO 224 (4)
BIO 220 (4)
ENGL 101 (3)
Written \& Oral Analysis (Speech) GE (3)
MATH GE (MATH 165 Statistics required) (4)
GE, A3 Critical Thinking GE (3)

YEAR 2
(Admission to the prelicensure option of the B.S.N. program is required from this point forward)

Fall Semester
Spring Semester
NURS 200 (3) NURS 206 (3)
NURS 203 (2) NURS 208 (3)
NURS 205 (3) NURS 210B (4)
NURS 210A (4) NURS 300 (3)

## YEAR 3

Fall Semester
Spring Semester
NURS 340 (3) NURS 380 (3)
NURS 342 (3) NURS 385 (3)

NURS 345 (4)
GE and other degree requirements
PSY 302 (3)
GE and other degree requirements
YEAR 4
Fall Semester
Spring Semester
NURS 404 (3) NURS 425 (4)
NURS 405 (3) NURS 450 (3)
NURS 415 (1)
Elective (3)
NURS 440 (3)
GE and other degree requirements

## R.N. to B.S.N. Option

Sonoma State University's baccalaureate program also offers an upper-division option designed to articulate with community college Associate Degree Nursing (ADN) programs. The SSU program provides upper-division education for registered nurses fostering expanded practice and function with increased independence in a variety of settings.
R.N.s who have attended a hospital (diploma) program should contact a community college with a R.N. program to obtain equivalent credit for their diploma program (30 ungraded lower-division nursing units) and to complete the community college's general education requirements for an A.A. degree.

## Admission to the R.N. to B.S.N. Option

Applicants must meet the following criteria:

1. Current California licensure as a registered nurse. (Recent ADN graduates who have not yet received California R.N. licensure but who otherwise meet admission requirements will be accepted on a conditional basis pending National Council Licensing Examination (NCLEX) results. Failure to pass NCLEX disqualifies the student from the nursing major - but not from the University - until such time as a passing score is obtained.);
2. Sixty semester units of college-transferable credit: 30 units should meet California State University general education requirements, including areas A (English Composition, Speech, and Critical Thinking) and B4 (Statistics required); 30 units must be credit for lower-division nursing coursework. Applicants may be admitted to SSU and the nursing program without having yet completed Critical Thinking and/or Statistics, but must complete these requirements in their first semester at SSU;
3. Minimum of 3 semester units of college-transferable credit in general chemistry with a grade of C or better; and
4. Human anatomy and physiology within the past 10 years or direct clinical nursing experience within the past two years.

Requirements for the R.N. to B.S.N. Option
General Education (39 units may be transferred* from a community college or university)
Upper-Division GE at SSU

## Major Requirements

Lower-division nursing at community college or university ( 13 of the 44 units of upper-division nursing coursework below may also be awarded for community college nursing coursework)
Upper-division at SSU
General electives and prerequisite sciences
Total units needed for graduation
*3 units of area E will be satisfied upon completion of the nursing major to meet the 48-unit GE requirement (for transfer students).

## Required Nursing Major Courses for the R.N.-B.S.N. Option and Sample Two-Year Program

The sequence below is for full-time students. A part-time sequence that can be completed in six semesters is available from the Nursing Department and on the website.

YEAR 1

| Fall Semester | Spring Semester |
| :--- | ---: |
| NURS 305 (3) | NURS 300 (3) |
| NURS 312 (4) | NURS 313 (4) |
| NURS 404 (3) | NURS 348 (6) |
| PSY 302 (3) | NURS 405 (3) |
|  |  |
|  |  |
|  | NURS $415(1)$ |
|  |  |
|  |  |

## L.V.N. 30-Unit Option

L.V.N.s interested in an L.V.N.-B.S.N. program are encouraged to contact the Indiana State University L.V.N.-B.S.N. program offered in California through a state approved partnership with SSU. Students will be graduates of Indiana State University.

Contact Millie Adkins, ISU-California L.V.N.-B.S.N. Program Coordinator, for more information, (800) 496-9613, madkins5@isugw. indstate.edu.
The L.V.N. 30-unit option includes only those nursing courses required for R.N. licensure and qualifies L.V.N.s to take the NCLEX-RN, but does not earn a B.S.N. To be admitted to the L.V.N. 30-unit option an L.V.N. must have completed 4 units of physiology and 4 units of microbiology with a grade of B or better. Admission to this option is ONLY on an "as space is available" basis. Contact the department for further details.

## Undergraduate Nursing Progression and Retention

Should a student not attain a minimum grade of C (a C - is not acceptable) in a required nursing course, the student will not be permitted to continue in the nursing major. The student may petition the faculty to repeat the course. If approval is granted, the student must receive a grade of $C$ or better in the course when repeated. If a minimum grade of C is not attained, the student will not be eligible to continue in, or graduate from, the B.S.N. program.

## Master of Science in Nursing

The goal of the graduate curriculum is to provide advanced professional education to nurses with a B.S.N. or equivalent. The graduate degree in nursing is designed to respond to society's needs for professional nurses who influence the structure of emerging patterns of health care practice and delivery. Specialization in an area of nursing practice or function enables graduates to effectively address current and future societal health needs. Graduates support the development and refinement of nursing science by assuming advanced clinical and leadership roles within the profession and by participating in research and other scholarly activities.

The curriculum includes a core of instruction with an emphasis on theoretical and conceptual foundations of nursing practice, research, professional issues, and leadership. One option offers specialization as a family nurse practitioner (F.N.P.), with emphasis on advanced clinical primary care practice. A second option, nursing leadership and management (L\&M), prepares nurses for executive leadership functions and responsibilities in current and emerging health care systems and offers concentrations in nursing administration, clinical nurse leader, or education.
The Department of Nursing also offers a direct entry master of science in nursing program designed specifically for the student with a baccalaureate degree in a discipline other than nursing who wishes to become a registered nurse with a graduate focus in the clinical nurse leader concentration of the leadership and management option. The department website (www.sonoma.edu/nursing) contains in-depth information about this program.

## Application Procedures

The standard CSU application form must be submitted (available from the SSU Office of Admissions and Records). In addition, applicants must:

1. Meet the minimum admissions requirements for the chosen option (FNP or L\&M);
2. Submit a supplemental Nursing Department application form; and
3. Submit three letters of recommendation (on departmental forms).

Application packets are available on the Nursing Department website, www.sonoma.edu/nursing. Applicants who have received their B.S.N. from SSU also need to submit a standard CSU application and supplemental nursing application to apply for graduate standing at SSU.

## M.S.N. Pathways Option (for registered nurses with a bachelor's degree in a discipline other than nursing)

Admission to the Department of Nursing's master of science program requires the foundation and skills equivalent to a bachelor of science degree in nursing. For those registered nurses who hold a baccalaureate degree in a field other than nursing, the department offers a Pathways option in preparation for admission to the master's program. This option provides an individualized plan of study considering the student's background and chosen master's option
(family nurse practitioner or leadership and management)
Pathways Program Admissions Procedure: In addition to the standard California State University application, a M.S.N. Pathways application must be submitted. Applications are available on the department website, www.sonoma.edu/nursing.

Admission Status: Initial status will be "conditionally classified" while the student is fulfilling requirements for B.S.N. equivalency and other graduate admissions criteria. Completion of the Pathways option permits the student to be considered in the applicant pool but does not guarantee admission to the graduate nursing program.

## Culminating Experience

Degree requirements include completing a culminating experience during the final semester of study. The experience provides an opportunity for the student to synthesize the major learning outcomes of the graduate program and the nursing specialty option.

## Family Nurse Practitioner Specialty Option

The purpose of the family nurse practitioner specialty option is to prepare registered nurses with a bachelor's degree in nursing for advanced clinical practice with an emphasis on promoting individual and family wellness. The F.N.P. specialty focuses upon the theoretical and scientific bases for the diagnosis and management of common illness as well as health teaching, counseling, and preventive services. Emphasis is placed upon advanced clinical skills that include history-taking, physical examination, health screening, management of common illnesses, and techniques of prevention and risk reduction. Graduates may work in clinics, health maintenance organizations, schools, and medical practices as primary health care providers.

## Admission Requirements

1. B.S.N. degree (R.N.s with a bachelor's in an area other than nursing, please see previous section on M.S.N. Pathways option);
2. GPA of 3.00 in the last two years ( 60 units) of undergraduate or post-graduate study;
3. Current California licensure as a registered nurse;
4. Completion of a course in statistics; completion of a course in physiology/pathophysiology within the last seven years; completion of a physical assessment course in the summer prior to beginning the F.N.P. specialty courses (students may challenge the physiology requirement by taking the National League for Nursing test. See the department website at www. sonoma.edu/nursing for details.);
5. Completion of course(s) in community health nursing required for Public Health Nursing Certificate; and
6. Full-time experience as a R.N. preferred.

## Curriculum Features

Students have a three-semester clinical preceptorship with a primary care provider. Students and faculty share responsibility for finding an acceptable preceptor. Content includes health needs and risks of all family members, family theories, and legal and profes-
sional issues pertinent to nurse practitioners. Content taken concurrently with the clinical sequences includes health risk assessment of individuals and families, pathophysiological concepts in diagnosis and treatment of common illness, pharmacology, and practice issues pertinent to nurse practitioners.

Students complete a comprehensive exam for the culminating experience that serves as evidence of successful integration of the diverse content areas in the curriculum.

The SSU family nurse practitioner specialty option meets criteria specified in Section 1484, Title 16, of the California Administrative Code and is approved by the California State Board of Registered Nursing.

## Accelerated F.N.P. Option

Registered nurses with a B.S. who are nurse practitioners may progress more rapidly through the program using a series of challenge examinations. A maximum of 12 semester units from prior coursework and challenge examinations may be counted toward the M.S.N. degree. A total of 28 units must be taken in residence at SSU. Students are evaluated individually to determine which courses have been met by prior course work and which courses may be challenged. By using this option, it is possible for eligible students to receive credit for some of the didactic courses and for most of the clinical experience required for F.N.P. preparation.

## Post-Master's Family Nurse Practitioner Certificate Option

The certificate option is a 31-unit course of study designed for registered nurses who hold a master's degree in nursing who wish to become family nurse practitioners. Application is through the Department of Nursing (no university application is required).

## Curriculum for Full-Time Progression for Master of Science in Nursing - Family Nurse Practitioner

The sequence below is for full-time students. A part-time sequence that can be completed in six semesters is also available from the Nursing Department and on the website.

YEAR 1

| Fall Semester (13 Units) | Spring Semester (12 Units) |
| :--- | ---: |
| NURS $501(3)$ | NURS 540B (4) |
| NURS 540 (2) | NURS 550B (5) |
| NURS $549(3)$ | NURS 505 (3) |
| NURS 550A (2) |  |
| NURS 552 (3) |  |

YEAR 2

Fall Semester (9 Units)

| NURS 500A (3) | NURS 500B (3) |
| :--- | ---: |
| NURS 504 (2) | NURS $510(3)$ |
| NURS 550C (4) | Culminating Experience |

NURS 500A (3)
Culminating Experience

TOTAL UNITS:: 40

## Leadership and Management Specialty Option: Nursing Administration, Clinical Nurse Leader, and Nursing Education Concentrations

The Nursing Leadership and Management Specialty option includes the core graduate nursing curriculum and selection of one of three areas of concentration: nursing administration, nursing education, or clinical nurse leader. The core curriculum grounds the master's-prepared nurse in research and evidence-based practice, health policy, health care organization and financing, ethics, professional role development, and the theoretical foundations of nursing practice. The selected area of concentration builds on the core curriculum as follows:

- Nursing Administration: This concentration emphasizes systems analysis, organizational development, leadership, continuous quality improvement, economics and financial management, information systems, human resource/outcomes management, managed care and integrated delivery systems, marketing and sales strategies, and negotiation strategy. Graduates are prepared to assume nursing leadership positions in a variety of health care services delivery venues.
- Nursing Education: Competencies highlighted in this concentration include facilitating learner development and socialization, assessment and evaluation in didactic and clinical environments, curriculum development, instructional design and delivery in higher education, and educational program evaluation. Graduates are prepared to teach in community college or university nursing programs or provide professional education in health care organizations.
- Clinical Nurse Leader: The clinical nurse leader concentration prepares students with advanced clinical skills in physical assessment, pathophysiology and pharmacology, outcomes management, patient advocacy, education, information management, microsystems analysis, and team management. Graduates are prepared at an advanced generalist level in patient care delivery and the associated environment and improving patient care from a systems perspective.


## Admission Requirements

1. B.S.N. degree (R.N.s with a baccalaureate degree in an area other than nursing, please see section on M.S.N. Pathways program);
2. GPA of 3.00 in the last two years ( 60 units) of undergraduate or post-graduate study;
3. Current California licensure as a registered nurse;
4. Completion of a course in statistics; and
5. Completion of courses(s) in community health nursing.

## Curriculum

The nursing administration, nursing education, and clinical nurse leader concentrations are managed in class cohorts and admission may not be made to each concentration every year. Check with the
department on the status of admissions to your desired concentration. Students enroll in an average of 8 units per semester. Courses are taught in a variety of formats including the traditional classroom, teleconference, and Internet.

The first year of study focuses on the acquisition of a theoretical base in nursing, the health care delivery system, advanced practice issues, and ethics. The second year incorporates nursing administration, clinical nursing leadership, nursing education theories, financial management, quality management, and human resources. Students analyze and evaluate organizational and management theories in relation to the provision of health care and nursing care delivery systems. A final semester residency program provides for application of theoretical knowledge with a mentor in a health care agency selected by the student in consultation with faculty. Students tailor their plan of study and select the focus for their residency based on their professional background and career goals. Students complete a culminating experience that serves as evidence of successful integration of the diverse content areas in the curriculum.

## M.S.N. - Leadership and Management Curriculum

Core courses required for all students.

|  | Units |
| :---: | :---: |
| NURS 500A Scholarly Inquiry I | 3 |
| NURS 500B Scholarly Inquiry II | 3 |
| NURS 504 Policy \& Politics of Health Care | 2 |
| NURS 505 Ethics in Healthcare | 3 |
| NURS 506 Systems Management in Health Care | 4 |
| NURS 515A Financial Management in Health Care Organization | 4 |
| Total units | 19 |
| Concentrations |  |
| Students take 13 units in their concentration |  |
| Administration Concentration (13 units) | Units |
| NURS 515B Financial Management II | 4 |
| NURS 530 Nursing Leadership Theory | 4 |
| NURS 535 Residency | 5 |
| Education Concentration (13 units) |  |
| NURS 522A Instructional Process in Higher Education I | 4 |
| NURS 522B Instructional Process in Higher Education II | 4 |
| NURS 535 Residency | 5 |
| Clinical Nurse Leader Concentration (13 units) |  |
| NURS 509 Adv. Assess. \& Clinical Decision-Making | 3 |
| NURS 516 Pathophys \& Pharm Issues in Nursing | 3 |
| NURS 535 Residency | 5 |
| NURS 536 CNL Professional Role Development | 2 |
| Total units in L\&M concentration courses | 13 |
| Total units for the degree | 32 |

## Direct Entry Master of Science in Nursing Program

The Department of Nursing also offers an entry-level master of science in nursing program titled "Direct Entry Master of Science in Nursing" (DEMSN) designed specifically for the student with a baccalaureate degree in a discipline other than nursing who wishes to become a registered nurse with a graduate focus as a Clinical Nurse Leader. The Clinical Nurse Leader is a generalist clinician, systems analyst, outcomes manager, information manager, educator, advocate, and team manager. For additional information about the role see the American Association of Colleges of Nursing web site http://www.aacn.nche.edu/CNL/. The SSU program is an intensive five-semester program during which pre-licensure and graduate courses are taught concurrently each semester. Important features of the program are::

1. Eighteen continuous months of study;
2. Extensive use of online education strategies;
3. Simultaneous integration of undergraduate and graduate nursing curricula; and
4. Curriculum designed to prepare Clinical Nurse Leaders.

DEMSN graduates are awarded a master of science degree in nursing and are eligible for the R.N. licensing exam (NCLEX) at the end of the program. Graduates are immediately employable as staff nurses and have the opportunity to continue a variety of educational pursuits of individual interest as well as market opportunity.

## Admission Requirements

Baccalaureate or higher degree in a discipline other than nursing. Minimum 3.00 GPA in the last 60 units of undergraduate or postgraduate study.

Minimum 3.00 GPA in college level, nursing major prerequisite courses:

- Integrated chemistry (5 units)
- Human Anatomy (4 units, lab)
- Human Physiology (4 units, lab)
- Microbiology (4 units, lab)
- Statistics (3 units)
- Human Growth and Development [across the lifespan] (3 units)

Students are also required to have completed a certified nursing assistant (CNA) course prior to beginning the program.

## DEMSN Clinical Nurse Leader Curriculum

The DEMSN curriculum is presented in five continuous semesters/ sessions. Each semester consists of coursework and clinical experience. The didactic portion of the curriculum is delivered primarily online through the Internet using up-to-date distributive education strategies and technology. Clinical experiences occur in a variety of local hospitals, clinics, and other health care delivery systems.

The highly motivated, flexible, self-directed learner is likely to be successful in this program.

## Curriculum for Direct Entry <br> Master of Science in Nursing - Clinical Nurse Leader

| YEAR 1 |  |  |
| :---: | :---: | :---: |
| Spring Semester |  | Units |
| NURS 200 Nursing in Health and Illness |  | 3 |
| NURS 203 Basic Pharmacology for Nurses |  | 2 |
| NURS 208 Nursing Applications of Pathophysiology |  | 3 |
| NURS 210A Clinical Practicum I |  | 4 |
| NURS 506 Systems Management in Health Care |  | 4 |
|  | Total | 16 |
| Summer Session |  |  |
| NURS 206 Psychiatric/Mental Health Nursing |  | 3 |
| NURS 210B Clinical Practicum II |  | 4 |
| NURS 502 Pathophysiologic Basis of Nursing Care |  | 3 |
| NURS 509 Advanced Assessment |  | 3 |
|  | Total | 13 |
| Fall Semester |  |  |
| NURS 380 Care of Individuals and Families with Complex Needs |  | 3 |
| NURS 385 Clinical Practicum Care of Individuals \& Families with Complex Needs |  | 3 |
| NURS 507 Community Health Nursing Theory |  | 3 |
| NURS 515A Financial Management |  | 3 |
| NURS 500A Scholarly Inquiry I |  | 3 |
|  | Total | 15 |

## Spring Semester

NURS 340 Women's Health in the Expanding Family 2
NURS 342 Child Health in the Expanding Family 2
NURS 345 Clinical Practicum with Expanding Families 3
NURS 500B Scholarly Inquiry II 3
NURS 514 Community Health Nursing Practicum 3
Total 13

## Summer Session

NURS 504 Policy and Politics of Health Care 2
NURS 505 Ethics in Health Care 3
NURS 525 Clinical Residency 3
NURS 526 CNL Professional Role Development 2
Total 10
Total units required 67

## Graduate Nursing Progression and Retention

Should a graduate nursing student not attain a minimum grade of B- (a C+ is not acceptable) in a required graduate nursing course, the student will not be permitted to continue in the program. The student may petition the faculty to repeat the course. If approval is granted, the student must receive a grade of $B$ - or better in the course when repeated. If a minimum grade of $B$ - is not attained, the student will not be eligible to continue in, or graduate from, the M.S.N. program.

## DEPARTMENT OFFICE

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Brenda Cloney

## Faculty

Roger Bell
Gillian Parker
John Sullins
Andy Wallace

## Programs Offered

Bachelor of Arts in Philosophy
Pre-Law/Applied Ethics (Optional) Concentration
Minor in Philosophy

## The Philosophical Life

The value of a philosophy degree stems from the richness of the perennial themes that are addressed in philosophical texts and discussions. Majors in this department balance their studies of the great classical themes of philosophy with a focus on the particular philosophical issues that are of paramount importance to them. In designing the department major, care has been taken to emphasize both the historical and analytical dimensions of philosophy, as well as its theoretical and practical dimensions. In this regard, the Department of Philosophy believes that the Socratic dictum "know thyself!" requires the exercise of both theoretical and practical reason. The design of the major expresses this fundamental belief.
In its historical dimensions, an education in philosophy gives the student a nuanced appreciation of the wide array of conceptual systems that human beings have employed to deal with questions concerning reality, justice, truth, morality, and the meaning of life. In its analytical and critical dimensions, philosophy trains one to detect and avoid errors in thinking. Such training involves special emphasis on the logical use of language, the analysis of concepts, and the ability to critique and construct extended arguments.

Philosophy's emphasis on both the imaginative and critical use of rationality helps prepare one for a wide variety of careers that require finely-honed reasoning and communication skills. Such fields include law, medicine, social and political advocacy, counseling, teaching, print and electronic media, and research and writing in both academic and nonacademic fields.

## Faculty and Curriculum

At the heart of the philosophy program is the faculty: dedicated teachers and scholars who represent key approaches to philosophy, and who are actively engaged in ongoing research. We have designed the curriculum to provide the major with a balanced historical and contemporary understanding of philosophy.

## Advising

Advising begins with an initial advising interview with the department chair. During the following semester the student will choose a regular faculty advisor.

## Bachelor of Arts in Philosophy

A major in philosophy involves a core of courses required of all majors, one senior seminar, and 18 elective units in philosophy chosen by the student. Core courses provide overviews of the major areas of philosophy, whereas elective courses may be more specialized or experimental in content and method.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements: | 42 |
| core (24), electives (18) | 27 |
| General electives | $\mathbf{1 2 0}$ |

## Major Core Requirements

PHIL 101 Critical Thinking ..... 0
(GE A3 units do not count for the major)
PHIL 120 Introduction to Philosophy ..... 3
PHIL 202 Proseminar ..... 3
PHIL 204 Applied Ethics ..... 3
PHIL 207 Philosophical Movements ..... 3
PHIL 301 Philosophy of Science and Technology ..... 3
PHIL 302 Ethics and Value Theory ..... 0
(These GE C3 units do not count for the major)
PHIL 303 Social and Political Philosophy ..... 3
PHIL 306 Contemporary Topics ..... 3
(Students may repeat course with different curriculum for elective credit)PHIL 307 Philosophical Figures3
(Students may repeat course with different curriculum for elective credit)PHIL 400 Senior Seminar

Teaching of senior seminars rotates among full-time department members, and at least one is offered each semester. PHIL 400 may be repeated twice for credit when the subject matter and instructor are not repeated.

In exceptional cases, the Philosophy Department permits the design of an individual major. A proposal for an individual major must
be approved by three members of the full-time faculty selected by the applicant. These three faculty members shall constitute the student's major committee.
The major requirement is thus 42 units: 27 core units and 15 units of electives. Students may petition for elective units to be transferred in from outside the department.

## Sample Four-Year Program for Bachelor of Arts in Philosophy

FRESHMAN YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| PHIL 101 (A3) or ENGL 101 (A2) (3) | ENGL 101 or PHIL 101 (3) |
| PHIL 120 (A3) (3) | GE (6) |
| GE (6) |  |
| Electives (3)  <br>   <br> SOPHOMORE YEAR:: 30 Units  |  |


| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| PHIL 202 (3) | PHIL 204 (3) |
| PHIL 207 (3) | Philosophy Electives (3) |
| PHIL 200 (3) | GE (6) |
| GE (3) | Electives (3) |
| Electives (3) |  |
|  |  |
|  |  |
|  | JUNIOR YEAR:: $\mathbf{3 0}$ Units |


| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| PHIL 302 (3) | PHIL 307 (3) |
| PHIL 303 (C3) (3) | Philosophy Electives (3) |
| Philosophy Elective (3) | GE (6) |
| GE (6) | Electives (3) |
|  |  |
|  |  |
|  | SENIOR YEAR:: 30 Units |

## Fall Semester (15 Units)

PHIL 301 (3)
Philosophy Elective (3)
GE (6)
Electives (3)
Spring Semester (15 Units)
PHIL 306 (3)
PHIL 400 (3)
Philosophy Electives (6) Electives (6)

TOTAL UNITS:: 120

## Pre-Law/Applied Ethics (optional) Concentration

The Philosophy Department offers majors the option of choosing a concentration in pre-law and applied ethics. This option does not increase the overall number of required units. However, it requires students to increase the number of required units from 27 to 30 and decrease the number of elective units from 15 to 12 . For a list of the required courses in the pre-law and applied ethics concentration see the list below. For a sample four-year progression through the major with the concentration in pre-law and applied ethics see the sample worksheet.

## Major Core Requirements

PHIL 101 Critical Thinking ..... 0
PHIL 102 Introduction to Logic ..... 3
PHIL 120 Introduction to Philosophy ..... 3
PHIL 202 Proseminar ..... 3
PHIL 204 Applied Ethics ..... 3
PHIL 207 Philosophical Movements ..... 3
PHIL 302 Ethics and Value Theory ..... 0
PHIL 303 Social and Political Philosophy ..... 3
PHIL 306 Contemporary Topics ..... 3
(Students may repeat course with different curriculum for elective credit)PHIL 307 Philosophical Figures3
(Students may repeat course with different curriculum for elective credit)
PHIL 375 Philosophy of Law3
PHIL 499 Law Internship ..... 3
Total units in the (pre-law) core ..... 30
Sample Four-Year Program for Bachelor of Arts in Philosophy Pre-Law/Applied Ethics Concentration

FRESHMAN YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| PHIL 101 or ENGL 101 (3) | ENGL 101 or PHIL 101 (3) |
| PHIL 120 (3) | PHIL 102 (3) |
| GE (6) | GE (6) |
| University Electives (3) | University Electives (6) |

SOPHOMORE YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :---: | :---: |
| PHIL 202 (3) | PHIL 204 (3) |
| PHIL 200 (3) | GE (6) |
| GE (6) | University Electives (6) |
| University Electives (3) |  |
| JUNIOR YEAR:: 30 Units |  |
| Fall Semester (15 Units) | Spring Semester (15 Units) |
| PHIL 207 (3) | PHIL 307 (3) |
| PHIL 302 (3) | PHIL 375 (3) |
| Philosophy Electives (3) | Philosophy Electives (3) |
| GE (6) | GE (3) |
|  | University Electives (3) |
| SENIOR YEAR:: 30 Units |  |


| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| PHIL 303 (3) | PHIL 306 (3) |
| Philosophy Electives (3) | PHIL 499 (3) |
| GE (6) | Philosophy Electives (3) |
| University Electives (3) | University Electives (6) |

TOTAL UNITS:: 120
Courses may be interchanged fall and spring semester depending on course offering each semester.

## Minor in Philosophy

The minor in philosophy consists of 18 units chosen by the student in consultation with a department advisor. At least 12 units must be taken in residence at SSU. These 18 units may be lower- or upperdivision philosophy courses. Only two specific general education courses may be counted toward the 18 units: Philosophical Issues (PHIL 200) and Ethics and Value Theory (PHIL 302). Only two course substitutions must be approved by the department chair and all courses must be taken for a grade to count toward the minor. The minor track in philosophy may be designed to emphasize pre-law, pre-med, pre-business, critical thinking, and other applied areas and/ or pre-professional programs. Consult the department chair for further information.

## PHYSICAL SCIENCES FOR ELEMENTARY SCHOOL TEACHERS

## Program Advisors and Offices

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## Program Offered

## Minor in Physical Sciences

The minor in physical sciences for elementary teachers provides an introduction to the physical sciences at a nontechnical (nonmathematical) level. The minor is intended for liberal studies majors who also plan to enter a general elementary school teaching credential program. The minor will provide the background and skills to teach some physical sciences in the elementary and middle schools. This minor is not appropriate for students planning to teach science in the secondary schools; they should study physical science at a more technical level and may choose a minor in astronomy, chemistry, geology, or physics.

## Minor in Physical Sciences

The minor consists of the following 22-23 units. Six of these will also be counted in general education. Students interested in the minor should consult an advisor.

## Minor Core Requirements

Complete the following 16-17 units; of these, 6 may be applied to general education.
ASTR 100 Descriptive Astronomy 3
CHEM 102 Chemistry and Society 3
GEOL 102 Our Dynamic Earth 3
CS 101 Introduction to Computers and Computing 3
PHYS 100 Descriptive Physics 3
ASTR 231 Introductory Observational Astronomy 2
or PHYS 102 Descriptive Physics Laboratory 1
Total units in minor core

## Minor Electives

Complete 6 units from the following:
ASTR 305 Frontiers in Astronomy
ASTR 350 Cosmology ..... 3
GEOG 310 Meteorology ..... 3-4
GEOL 306 Environmental Geology ..... 3
GEOL 323 Hydrology ..... 3
PHYS 342 Light and Color ..... 3
Total units in the minor electives ..... 6
Total units in the minor, including 6 units in general education ..... 22-23

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## ADMINISTRATIVE COORDINATOR

Cathi Cari-Shudde

## Faculty

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Jeremy S. Qualls
Saeid Rahimi
Scott A. Severson
Hongtao Shi

## Programs Offered

## Bachelor of Science in Physics

Bachelor of Arts in Physics
Minor in Physics
Teaching Credential Preparation
Physics is the most fundamental of all the scientific disciplines. Ranging from the applied to the abstract, from the infinitesimal to the infinite, and from quarks to the cosmos, the study of physics seeks to explain all the complicated phenomena in the natural world by providing a description of these phenomena in terms of a few basic principles and laws.

Physicists also use their knowledge of fundamental principles to solve concrete problems. Problems in understanding and utilizing the properties of semiconductors and other materials; in designing and building lasers, photonics, and telecommunications devices; and in designing and using instrumentation such as adaptive optics for astrophysics, are typically solved using the techniques of physics. Such applied physics problems often have a significant overlap with topics and techniques in engineering and computational physics. Indeed, many of the department's graduates are currently employed in engineering or computationally oriented positions.

In their most abstract work, physicists seek a unified mathematical description of the four known forces of nature (gravitation, electrical magnetism, and the weak and strong nuclear forces). This quest for the "Theory of Everything" eluded Einstein and is continued today by many physicists, including those who study superstring theory. The ultimate goal is to correctly predict the fundamental forces and the masses and interactions of the elementary particles from which all matter is formed.

The department offers a traditional, mathematically rigorous program leading to a B.S. in physics; a more applied curriculum leading to a B.S. in physics with a concentration in applied physics; and a flexible B.A.
program with two advisory plans (algebra and trigonometry or calculus). All programs stress fundamental concepts and techniques, offer an unusually rich laboratory experience and intensive use of computers, and require a capstone course as a culminating experience. Capstone projects may include experimental design, instructional design, or undergraduate research—personalized and unique opportunities to demonstrate the skills and knowledge acquired in the major.

The department is housed in Darwin Hall, which is well-equipped with lower-division teaching laboratories and facilities for intermediate and advanced laboratory courses, undergraduate research, special studies and capstone projects. The Darwin facilities include thin film fabrication systems such as sputtering, thermal evaporation, electrodeposition, a Hall measurement system, a 17-Tesla superconducting magnet system, an adaptive optics and astronomical instrumentation development laboratory, and a nuclear low-level counting laboratory. Physics majors also use the multidisciplinary Keck Microanalysis Laboratory in Salazar Hall which includes a scanning electron microscope, atomic force microscopes, an x-ray diffractometer, and a confocal microscope.
A substantial program in undergraduate astronomy includes many courses, listed in this catalog under Astronomy, which may be included in the B.A. or B.S. degree programs in physics. The department operates a teaching observatory on the SSU campus and a NASA-funded remotely operated research observatory at a darker site in northern Sonoma County. The department is also developing a new observatory at the Galbreath Wildlands Preserve in southern Mendocino County. Students are strongly encouraged to use all of the above facilities for special studies, undergraduate research, and capstone projects.

## Careers in Physics

For information on what you can do with a bachelor's degree in physics, follow links from: http://phys-astro.sonoma.edu

## Bachelor of Science in Physics

The B.S. program is a thorough introduction to the principles of physics, providing a strong foundation for graduate study or industrial research. It is also intended for those students who wish to prepare for interdisciplinary studies on the graduate level in fields such as astronomy, atmospheric science, biophysics, environmental science, geophysics, materials science, and physical oceanography.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements (may include 5 units in GE) | 46 |
| Supporting courses (may include 4 units in GE) | 26 |
| Electives | $1-10$ |
| Total units needed for graduation | $\mathbf{1 2 4}$ |

## Major Core Requirements

PHYS 114 Introduction to Physics I
(may be applied to GE)
PHYS 116 Introductory Laboratory Experience (may be applied to GE) ..... 1
PHYS 214 Introduction to Physics II ..... 4
PHYS 216 Introductory Laboratory ..... 1
PHYS 313 Electronics ..... 3
PHYS 313L Electronics Laboratory ..... 1
PHYS 314 Introduction to Physics III ..... 4
PHYS 320 Analytical Mechanics ..... 3
PHYS 325 Introduction to Mathematical Physics ..... 3
PHYS 340 Light and Optics ..... 3
PHYS 366 Intermediate Experimental Physics ..... 3
PHYS 381 Computer Applications for Scientists ..... 2
PHYS 430 Electricity and Magnetism ..... 3
PHYS 450 Statistical Physics ..... 2
PHYS 460 Quantum Physics ..... 3
Total units in the major core ..... 40
Major Electives
To complete the major, select 6 units from the list below. At least one ofthe courses chosen must be a capstone course.
*ASTR 380 Astrophysics: Stars3
ASTR 482 Advanced Observational Astronomy ..... 2
*ASTR 492 Instructional Design Project ..... 2
ASTR 495 Special Studies ..... 1-4
*ASTR 497 Undergraduate Research in Astronomy ..... 2
PHYS 100 Descriptive Physics ..... 3
PHYS 445 Photonics ..... 3
PHYS 466 Advanced Experimental Physics ..... 3
PHYS 475 Physics of Semiconductor Devices ..... 3
*PHYS 492 Instructional Design Project ..... 2
*PHYS 493 Senior Design Project ..... 2
PHYS 494 Physics Seminar ..... 1
PHYS 495 Special Studies ..... 1-4
*PHYS 497 Undergraduate Research in Physics ..... 2
Certain selected-topics courses, ASTR or PHYS 396, may be approved by theadvisor.

| Total units in the electives | 6 |
| :---: | ---: |
| Total units in the major | 46 |

Required Supporting Courses
MATH 161 Calculus I (3 units may be applied in GE) ..... 4
MATH 211 Calculus II ..... 4
MATH 241 Differential Equations with Linear Algebra ..... 4
MATH 261 Multivariable Calculus ..... 4
CHEM 115AB General Chemistry (1 unit may be applied in GE) or CHEM 125AB Honors General Chemistry ..... 10
Total units in supporting courses ..... 26
Total units in the major and supporting courses( 9 may be applied in GE)

## Sample Four-Year Program for Bachelor of Science in Physics

The sequential nature of the physics curriculum necessitates an early start with major requirements and the distribution of general education courses over four years.

## FRESHMAN YEAR:: 32 Units

| Fall Semester (16 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| CHEM 115A (5) | CHEM 115B (5) |
| MATH 161 (4) | MATH 211 (4) |
| ENGL 101 (3) (GE A2) | PHYS 114 (4) |
| PHYS 100 (3) (Recommended) | PHYS 116 (1) |
| PHYS 494 (1) (Recommended) | Elective (2) |

## SOPHOMORE YEAR:: 31 Units

| Fall Semester (15 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| MATH 261 (4) | MATH 241 (4) |
| PHYS 214 (4) | PHYS 313 (3) |
| PHYS 216 (1) | PHYS 313L (1) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
|  |  |
|  | Elective (2) |
|  |  |
|  |  |
|  |  |


| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| PHYS 325 (3) | PHYS 320 (3) |
| PHYS 314 (4) | PHYS 340 (3) |
| PHYS 381 (2) | PHYS 366 (3) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
|  |  |
|  |  |
|  |  |
|  | SENIOR YEAR:: 31 Units |


| Fall Semester (15 Units) | Spring Semester (16 Units) |
| :---: | :---: |
| PHYS 450 (2) | PHYS 430 (3) |
| PHYS 460 (3) | PHYS Elective (2) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
| Elective (4) | GE (3) |
|  | Elective (2) |
| TOTAL UNITS:: 124 |  |
| See your advisor to discuss Twelve of the 51 units of GE $B 1, B 3$, and $B 4)$. | and when they will be offered. s listed here (3 each in areas A2, |

## Applied Physics Concentration

Students may earn a B.S. in physics with a concentration in applied physics. This program is intended for those students who desire
an emphasis on laboratory work. It provides a rigorous, yet slightly less theoretical course of study, and a greater selection of hands-on electives. It is a good choice for students who wish to continue their studies in graduate engineering programs, or who wish to work in industry in engineering or computationally-oriented positions.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements (may include 5 in GE ) | 48 |
| Supporting courses (may include 4 in GE) | 17 |
| Electives | $8-17$ |
| Total units needed for graduation | $\mathbf{1 2 4}$ |

## Major Core Requirements

PHYS 114 Introduction to Physics I (may be applied to GE) 4
PHYS 116 Introductory Laboratory Experience (may be applied to GE) 1
PHYS 214 Introduction to Physics II
PHYS 216 Introductory Laboratory
PHYS 313 Electronics I
PHYS 313L Electronics I Laboratory
PHYS 314 Introduction to Physics III
PHYS 325 Introduction to Mathematical Physics
PHYS 340 Light and Optics
PHYS 366 Intermediate Experimental Physics 3
PHYS 381 Computer Applications for Scientists 2
PHYS 430 Electricity and Magnetism 3
PHYS 450 Statistical Physics 2
PHYS 460 Quantum Physics
PHYS 475 Physics of Semiconductor Devices
Total units in the major core

## Major Electives

8 units selected from the following (must include at least one *capstone course):
ASTR 482 Advanced Observational Astronomy
*ASTR 492 Instructional Design Project
ASTR 495 Special Studies
*ASTR 497 Undergraduate Research in Astronomy
PHYS 100 Descriptive Physics
PHYS 320 Analytical Mechanics 3
PHYS 445 Photonics 3
PHYS 466 Advanced Experimental Physics 3
*PHYS 492 Instructional Design Project 2
*PHYS 493 Senior Design Project 2
PHYS 494 Physics Seminar 1
PHYS 495 Special Studies 1-4
*PHYS 497 Undergraduate Research in Physics 2
Certain selected topics courses, ASTR or PHYS 396, may be approved by the advisor.

## Total units in the major electives

Total units in the major

MATH 211 Calculus II 4
MATH 261 Multivariable Calculus 4
CHEM 115A General Chemistry (1 unit may be applied in GE) or CHEM 125A Honors General Chemistry

Total units in supporting courses
Total units in the major and supporting courses ( 9 may be applied in GE)

## Sample Four-Year Program for Bachelor of Science in Physics with Concentration in Applied Physics <br> The sequential nature of the physics curriculum necessitates an early start with major requirements and the distribution of general education courses over four years.

## FRESHMAN YEAR:: 31 Units

| Fall Semester (16 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| CHEM 115A (5) | MATH 211 (4) |
| MATH 161 (4) | PHYS 114 (4) |
| ENGL 101 (3) (GE A2) | PHYS 116 (1) |
| PHYS 100 (3) (recommended) | GE (3) |
| PHYS 494 (1) (recommended) | GE (3) |

SOPHOMORE YEAR:: 31 Units

| Fall Semester (15 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| MATH 261 (4) | PHYS $313(3)$ |
| PHYS 214 (4) | PHYS 313L (1) |
| PHYS 216 (1) | GE (3) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
|  | GE (3) |

JUNIOR YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| PHYS 325 (3) | PHYS 340 (3) |
| PHYS 314 (4) | PHYS 366 (3) |
| PHYS 381 (2) | GE (3) |
| GE (3) |  |
| Elective (3) |  |
|  |  |
|  | SENIOR YEAR:: 32 Units |
| Fall Semester (16 Units) | Spring Semester (16 Units) |
| PHYS 450 (2) | PHYS 430 (3) |
| PHYS 460 (3) | PHYS 475 (3) |
| PHYS Elective (2) | PHYS Elective (2) |
| GE (3) | GE (3) |
| Elective (3) | GE (3) |
| Elective (3) | Elective (2) |

## TOTAL UNITS:: 124

See your advisor to discuss acceptable physics electives and when they will be offered. Twelve of the 51 units of GE are met by required courses listed here (3 each in areas A2, B1, B3, and B4).

## Required Supporting Courses

MATH 161 Calculus I (3 units may be applied in GE)

## Bachelor of Arts in Physics

The B.A. program allows considerable flexibility for the student who wishes to study physics as part of a liberal arts education. Two advisory plans are offered:

## Bachelor of Arts in Physics with Advisory Plan C

This plan uses calculus. Students who choose this, the more popular B.A. advisory plan, have the prerequisites to take nearly all of the courses in the department. They find employment in scientific and engineering fields. Some go on to graduate school in interdisciplinary sciences. This degree program is appropriate for those who wish to earn a California Science Teaching Credential with a concentration in Physics.

| Degree Requirements | Units |
| :--- | ---: |
| Major requirements (may include 5-6 in GE) | $34-38$ |
| Required area of concentration | 12 |
| Supporting courses (may include 3 in GE) | 12 |
| General education | 51 |
| General electives | $7-19$ |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Major Core Requirements

PHYS 114 Introduction to Physics I (may be applied to GE) 4
PHYS 116 Introductory Laboratory Experience (may be applied to GE) 1
PHYS 214 Introduction to Physics II 4
PHYS 216 Introductory Laboratory 1
PHYS 314 Introduction to Physics III 4
PHYS 340 Light and Optics 3
Choose one of the following two programming courses: 2-4
PHYS 381 Computer Applications for Scientists 2
CS 115 Programming I 4
Capstone course; One of the following: 2
ASTR 492 Instructional Design Project 2
ASTR 497 Undergraduate Research in Astronomy 2
PHYS 492 Instructional Design Project 2
PHYS 493 Senior Design Project
PHYS 497 Undergraduate Research in Physics
The major must include a minimum of 24 upper-division units in physics and astronomy; with an advisor, choose 13-15 units in additional upper-division physics and astronomy courses. Physics 100 may be used to substitute for an advanced Physics elective course.

Total units in the major core

## Required Area Of Concentration

Courses in one other field, chosen in consultation with an advisor.
Total units in area of concentration

## Supporting Courses

MATH 161 Calculus I (3 units may be applied in GE) 4
MATH 211 Calculus II 4
MATH 261 Multivariable Calculus 4

Total units in the major and supporting courses (8-9 may be applied in GE)

## Sample Four-Year Program for Bachelor of Arts in Physics with Advisory Plan C

The sequential nature of the physics curriculum necessitates an early start with major requirements and the distribution of general education courses over four years.

FRESHMAN YEAR:: 31 Units

| Fall Semester (16 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| MATH 161 (4) | MATH 211 (4) |
| ENGL 101 (3) (GE A2) | PHYS 114 (4) |
| PHYS 100 (3) (recommended) | PHYS 116 (1) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
|  |  |
| SOPHOMORE YEAR:: 30 Units |  |


| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :---: | :---: |
| MATH 261 (4) | Elective (3) |
| PHYS 214 (4) | Elective (3) |
| PHYS 216 (1) | GE (3) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
| JUNIOR YEAR:: 30 Units |  |
| Fall Semester (15 Units) | Spring Semester (15 Units) |
| PHYS 314 (4) | PHYS 340 (3) |
| PHYS 381 (2) | PHYS Elective (3) |
| Area of Concentration* (3) | Area of Concentration* (3) |
| GE (3) | GE (3) |
| GE (3) | Elective (3) |
| SENIOR YEAR:: 29 Units |  |
| Fall Semester (15 Units) | Spring Semester (14 Units) |
| PHYS Elective (3) | Capstone Course (2) |
| Area of Concentration* (3) | Area of Concentration* (3) |
| GE (4) | PHYS Elective (4) |
| Electives (5) | Electives (5) |
| TOTAL UNITS:: 120 |  |
| *Area of Concentration = 12 met by required courses listed with a physics elective.) | leven of the 51 units of GE are and B4). (One more can be met |

## Bachelor of Arts in Physics with Advisory Plan T

This plan uses algebra and trigonometry. Students may select from upper-division courses, appropriate to careers as science or technical writers, scientific sales personnel, technicians, programmers, or other technical specialists. There is opportunity to take courses
that lead to careers in the health sciences or environmental fields. This degree program is appropriate for those who wish to earn a California Multiple Subject Teaching Credential. Advisory Plan T is often taken as part of a double major.

| Degree Requirements | Units |
| :--- | ---: |
| Major requirements (may include 6 in GE) | $32-36$ |
| Required area of concentration | 12 |
| Supporting course (may include 3 in GE) | 4 |
| General education | 51 |
| General electives | $17-30$ |
| Total units needed for the degree | $\mathbf{1 2 0}$ |

## Major Core Requirements 8

PHYS 209AB General Physics Laboratory 2
PHYS 210AB General Physics 6
Choose one of the following two courses in modern
physics or astronomy:
ASTR 305 Frontiers in Astronomy
PHYS 314 Introduction to Physics III
Choose one of the following two courses in optics:
PHYS 340 Light and Optics
PHYS 342 Light and Color
An approved course in computer applications, e.g., PHYS 381 (2):

Capstone course; One of the following:
ASTR 492 Instructional Design Project
ASTR 497 Undergraduate Research in Astronomy
PHYS 492 Instructional Design Project
PHYS 493 Senior Design Project
PHYS 497 Undergraduate Research in Physics
The major must include a minimum of 24 upper-division units in physics and astronomy, so, with an advisor, choose 13-16 units in additional upper-division physics and astronomy courses. Physics 100 may be substituted for an advanced physics elective course.

Total units in the major core

## Required Area Of Concentration

Courses in one other field chosen in consultation with an advisor.
Total units in area of concentration

## Supporting Course

MATH 107 Pre-calculus Mathematics (3 units may be applied in GE):
Total units in supporting course
Total units in the major

FRESHMAN YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :---: | :---: |
| MATH 107 (4) | PHYS 209A (1) |
| ENGL 101 (3) (GE A2) | PHYS 210A (3) |
| PHYS 100 (3) (recommended) | GE (3) |
| GE (3) | GE (3) |
| Elective (2) | GE (3) |
|  | Elective (2) |
| SOPHOMORE YEAR:: 31 Units |  |
| Fall Semester (15 Units) | Spring Semester (16 Units) |
| PHYS 209B (1) | PHYS Elective (4) |
| PHYS 210B (3) | Elective (3) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
| Elective (2) |  |
| JUNIOR YEAR:: 30 Units |  |


| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| ASTR 305 (3) | PHYS 342 (3) |
| GE (3) | PHYS Elective (3) |
| Area of Concentration ${ }^{\star}$ (3) | Area of Concentration (3) |
| GE (3) | GE (3) |
| Elective (3) |  |
|  |  |
|  |  |
|  | SENIOR YEAR:: 29 Units |


| Fall Semester (15 Units) | Spring Semester (14 Units) |
| :--- | ---: |
| PHYS Elective (3) | PHYS Elective (2) |
| PHYS Elective (3) | Area of Concentration (3) |
| Area of Concentration ${ }^{*}$ (3) | Elective (3) |
| Elective (3) | Elective (3) |
| Elective (3) | Elective (3) |

## TOTAL UNITS:: 120

*Area of concentration $=12$ units in one other subject. Twelve of the 51 units of GE are met by required courses listed here (in areas A2, B1, B3, and B4).

## Minor in Physics

Completion of a minimum of 20 units in physics courses, including not more than one first course or more than one second course, constitutes a minor in physics. (First courses are PHYS 100, 210A, and 114, and their equivalents taught elsewhere. Second courses are PHYS 210B, 214, and their equivalents.) Interested students should consult with the advisor in the Department of Physics and Astronomy.

## Teaching Credential Preparation

See the Teaching Credential Preparation in the Science Courses section of this catalog or contact the department advisor.

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*John Kramer
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Catherine Nelson
Diane Parness
*David Ziblatt
*Faculty Early Retirement Program

## Programs Offered

Bachelor of Arts in Political Science
Master's in Public Administration
Minor in Political Science
Teaching Credential Preparation
Certificate Program in the Administration of Nonprofit Agencies

The political science program at Sonoma State University offers excellent opportunities for the study of government and politics. More than 40 courses cover all the major aspects of the discipline. Students develop an understanding of human behavior as it relates to politics. They learn to discuss and analyze critically the many current public policy issues facing the United States and the world. They are taught how to analyze and understand world affairs and comparative politics. They are trained in appropriate research techniques for the study of political processes.

The political science major allows students to choose from a wide range of courses and subjects within a general framework. A common core of courses studies the relationship between values, ideology, and politics (POLS 201); fundamental issues in American politics (POLS 202); the logic of research in political science (POLS 302); comparative approaches and politics (POLS 303); analysis of international politics (POLS 304); and a senior research seminar
(POLS 498). Beyond this common core, as part of the additional 20 units required for the major, each student must complete at least one upper-division course in each of the four major fields of political science: political theory, international relations, comparative government, and American government and politics. Since politics and economics are so closely tied together, the department recommends each student complete a basic course in economics. In addition, the department encourages international study for political science students and will arrange for appropriate credits for courses of study at international universities.

A 20-unit minor in political science also is available. Although the minor most often is used in conjunction with such majors as communications, history, economics, and sociology, it can be paired with almost any major offered at the University.

## Features

The political science faculty is an accomplished and diverse group of scholars. Most pursue their own research projects and regularly offer the opportunity for students to participate in these projects. Most of the faculty have traveled extensively, both in this country and abroad.
Political science majors run an active student club that sponsors talks by leading political figures, candidate debates, and social events throughout the year. In addition, those students enrolled in Model United Nations (POLS 345) travel each spring to the United Nations in New York City for the National Model United Nations Conference.

## Internships

The department offers several programs through which students may gain practical experience while earning academic credit. A political science internship involves working in the office of a public official or, when possible, in an election campaign. Prior interns have served in responsible positions with state assembly members, state senators, and members of Congress, and in a number of campaigns for local, state, and national office. The comparable program in public administration places students in positions, often paid, with local government offices and agencies where they may be involved with city planning and zoning issues, public relations efforts, special research topics, or budget preparation, to mention several possibilities. In addition, the department regularly sends selected students to the state capitol to participate in the Sacramento Semester Program where they work with members of the Legislature, officers of the executive branch, or lobbyists to gain a fuller understanding of the political process firsthand. Finally, special arrangements also may be made for some students to serve as staff to members of Congress in Washington, D.C., for a semester.

## Academic Advising

The department expects students to seek faculty advice every semester when planning their programs. Each student is assigned a faculty advisor.

## Preparation

Students are encouraged to take English composition and social science courses, including civics, economics, and history. Experience in journalism and debating activities can also be helpful. A foreign language is highly recommended but not required for the degree. Students who plan further study at the graduate level are strongly encouraged to take courses in an appropriate foreign language, since proficiency in two foreign languages is often required in doctoral programs.

Community college transfer students should contact their counseling office or the Sonoma State University Political Science Office to identify appropriate lower-division major/minor preparatory courses. Typically, these would include a basic course in American political institutions, which would fulfill the state code requirements for U.S. Constitution and California state and local government. Other lower-division courses introducing students to the discipline of political science, the study of international relations, and the study of comparative politics also are highly recommended.

## Teaching Credential Preparation

Political science majors interested in seeking a general elementary credential may demonstrate subject matter competency by passing the CSET Multiple Subject Assessment for Teachers.* For further information, contact the department office, or Miriam Hutchins, School of Social Sciences, (707) 664-2409.

* Or the CSET Single-Subject Assessment for Teachers


## Careers in Political Science

## Law and Paralegal Careers

Many political science majors plan to study and practice law as a career. Although it is advisable for pre-law students to have as wide a background as possible, the department offers a number of specialized courses in the field of constitutional law and civil liberties. Generally, it is advisable for the pre-law student to seek advice on appropriate courses from a faculty member.

## Public Administration Careers

Local, state, and federal governments employ one of every six American workers. A major in political science with a public administration or public policy emphasis can prepare students for civil service careers at national, state, and local levels. While many of these careers require specialized skills (e.g., budgeting and accounting), many require general skills and understanding, with on-the-job training providing the required specialized knowledge.

Political science is also an appropriate major for students seeking training for positions in the overseas agencies of the U.S. government or in international organizations.

## Journalism Careers

A political science major, combined with an ability to analyze and understand current political events and the skills to put that analysis into lucid writing, can prepare the student for an attractive career in journalism. Practical experience offered by the University newspaper is highly recommended.

## Business Careers

A large number of political science graduates have found employment in the world of business. Preparation for this career involves a broad liberal arts background, combined with knowledge of governmental organization, public administration, finance, decisionmaking, organizational behavior, and the process by which political decisions about economic policy are made. Many businesses that recruit liberal arts graduates expect to provide them with special training programs.

## Other Careers

Other enterprising individuals develop unique and interesting careers for themselves in politics by developing skills in campaign management, speech writing, polling, public relations, lobbying, voting analysis, or fundraising. These opportunities result from the initiative of the individual combined with the practical experience gained largely through volunteer service with political campaigns.

## Bachelor of Arts in Political Science

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | 40 |
| General electives | 29 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Major Core Requirements

These courses should be taken in this order. Passage of POLS 302 with a grade of ' $C$ ' or better is a prerequisite for POLS 498.

POLS 201 Ideas and Institutions
*POLS 202 Issues in Modern American Politics or POLS 200 (3) ..... 4
POLS 302 Social Science Research Methods ..... 4
POLS 303 Introduction to Comparative Government ..... 4
POLS 304 Introduction to International Relations ..... 4
POLS 498 Senior Seminar ..... 4
One course must be taken from each of the following areas: Political Theory,International Relations, Comparative Politics, and American Government andPolitics.
*POLS 202 is strongly recommended for POLS majors.
Political Theory
Choose one of the following six courses: ..... 4
POLS 310 Classical Political Thought ..... 4
POLS 311 Development of Modern Political Thought since 1500 ..... 4
POLS 312 American Political Thought ..... 4
POLS 313 Critical Theory: Race and Gender ..... 4
POLS 315 Democracy, Capitalism, and Socialism ..... 4
POLS 415 Explorations in Political Theory ..... 4

## International Relations

Choose one of the following seven courses: 4
POLS 345 Model United Nations (MUN) 4
POLS 444 United States Foreign Policy 4
POLS 445 International Organizations 4
POLS 446 International Relations of the Middle East, Israel, the Palestinians and the United States
POLS 447 Non-violent Strategies in International Relations 4
POLS 448 Political Violence, Terrorism, and Law
POLS 486 Selected Issues in International Politics

## Comparative Politics

Choose one of the following nine courses:
POLS 350 European Parliamentary DemocraciesPOLS 351 Politics of Russia

## POLS 352 Politics of Eastern Europe

POLS 354 Comparative Political Parties
POLS 450 Politics of Asia
POLS 452 Third World Political Systems
POLS 453 Politics of Latin America
POLS 458 Comparative Social Policy
POLS 487 Selected Topics in Comparative Politics

## American Government And Politics

Choose one of the following twenty courses:
POLS 320 State, City, and County GovernmentPOLS 330 Race, Ethnicity, and Politics4
4
POLS 391 Gender and Politics ..... 4
POLS 420 American Political Development ..... 4
POLS 421 Federalism and Intergovernmental Relations ..... 4
POLS 423 Intro to Constitutional Law4
POLS 424 the Bill of Rights, Civil Liberties, and the Constitution ..... 4
POLS 425 the American Party System4
POLS 426 the Legislative Process ..... 4
POLS 427 the American Presidency ..... 4
POLS 428 Seminar in California Politics and Government ..... 4
POLS 429 Interest Groups ..... 4
POLS 430 Introduction to Public Administration ..... 4
POLS 431 Politics and the Media ..... 4
POLS 466 Political Psychology ..... 4
POLS 475 Urban Politics and Policy ..... 4
POLS 481 Politics of Regulation and Land Use ..... 4
POLS 483 Politics of Wealth and Poverty ..... 4
POLS 484 Elections and Voter Behavior ..... 4
POLS 485 Political Power and Social Isolation ..... 4
Total units in the major core40

## Sample Four-Year Program for Bachelor of Arts in Political Science

|  |  |
| :--- | :--- |
|  | FRESHMAN YEAR:: 30 Units |
| GE (30) |  |
|  | SOPHOMORE YEAR:: 30 Units |
| POLS 201 (4) |  |
| POLS 202 (4) |  |
| POLS 303 (4) |  |
| POLS 304 (4) |  |
| GE (10) |  |
| Elective (4) |  |

JUNIOR YEAR:: 29 Units
POLS 302 (4)
American Government (4)
Comparative Government (4)
International Relations (4)
GE (9)
Elective (4)

## SENIOR YEAR:: 31 Units

Political Theory (4)
Senior Seminar (4)
Electives (23)
TOTAL UNITS:: 120
Note: It is recommended that majors consider taking history and economic courses as part of their elective options. Nine units of the GE requisite must be filled with upperdivision courses, taken no sooner than the term in which upper-division standing (60 units) is achieved. POLS 315 (Democracy, Capitalism, \& Socialism) counts as both an upper-division GE course (Area D5) as well as an upper-division political theory course for the major. POLS 201 is both a lower-division core course and a lower-division GE course (Area D5).

## Minor in Political Science

POLS 200 American Political System (3) or
POLS 202 Issues in Modern American Politics (4) 3-4
POLS 201 Ideas and Institutions 4
Upper-division courses in political science $\quad 12-13$
Total units in the minor 20

## Code Requirements

POLS 200 The American Political System or POLS 202 Issues in Modern American Politics fulfills state code requirements in U.S. Constitution and California state and local government. Upper-division courses may also be used to satisfy certain of these code requirements upon approval by the department chair.

## Master's in Public Administration (www.sonoma.edu/polisci/mpa-home)

Offered primarily as an evening program, the master's degree in public administration provides a rigorous 40-unit curriculum that emphasizes the education required to effectively analyze, formulate, and implement public policy in local, state, and national government, and to achieve similar goals in nonprofit agencies. The program recognizes the need for a strong combination of theoretical and practical learning. Students choose from two concentrations: public management or nonprofit agency management.

Each student is required to complete a 20-unit analytic core, a 16-unit concentration, and 4 units of graduate-level electives. Courses are based upon the professional curriculum established for public administration programs by the National Association of Schools of Public Affairs and Administration (NASPAA).

Concentrations include specialized courses oriented toward the operation and management of public and nonprofit agencies and typically include fiscal management, personnel administration, legal issues, public policy, labor relations, marketing and resource development for nonprofits, and grants and contract management. Electives cover a wide range of important topics, including ethics, leadership, organizational computer usage, internships, and special studies.
Up to 9 units of comparable graduate course work may be transferred into this program per CSU policy.

If at any time it is determined that the candidate has an English deficiency, extra courses in English will be required in addition to the regular course of study.

## Admission Requirements

Students apply to both the University and to the M.P.A. program.
A. A bachelor's degree with a major from an accredited college or university with a grade point average of at least 3.00 for the last 60 units of college-level work attempted;
B. To ensure adequate background, a candidate for admission should have experience or course preparation in the following areas:

1. State and local government,
2. Federalism and intergovernmental relations,
3. Influences on domestic policy making.

- Recommended: One year experience working in a nonprofit organization or a course in introduction to nonprofit organizations (example: through Sonoma County Volunteer Center).

Candidates without such experience or course preparation can be admitted to the program but must make up deficiencies during the first three semesters of study. Prerequisites do not count toward the 40-unit degree. Acceptability of experience or previous coursework as prerequisites
will be determined in consultation with the program's graduate coordinator;
C. Completion of both University and departmental applications. Included in the departmental application are three letters of recommendation. Only three letters will be considered; and
D. Recommendation of the program by the graduate coordinator for entrance to the program.

## Graduation Requirements for the Master's Degree

A. A grade point average of at least 3.00 ;
B. Satisfactory completion of required coursework, including elective units. No courses for which a grade less than B is earned will be acceptable in meeting the 40-unit M.P.A. requirement. Students earning a B- or lower in a course will be required to repeat the course with a grade of $B$ or better;
C. Completion of a master's thesis and oral defense, or two comprehensive written examinations;
D. Recommendation of the program graduate coordinator; and
E. Successful completion of the WEPT (or its equivalent), or waiver by the University of this requirement. This waiver is granted by the program graduate coordinator.

## Course Work

Common Core Requirements - 20 Units
POLS 502 Organizational Theory and Analysis 4
POLS 503 Budget and Fiscal Administration 2
POLS 505 Research Methods 4
POLS 539 Program Implementation 4
POLS 550 Planning and Evaluation 4
POLS 580 Nonprofit Dynamics: Politics and Community Environment 2
Public Management Concentration Requirements - 16 Units

## POLS 501 The Administrative State 4

POLS 503A Public Finance 2
POLS 504A Human Resources for the Public Sector 2
POLS 506 Public Policy Process 4
POLS 511 Labor Relations 2
POLS 538 Administrative Law 2

Nonprofit Concentration Requirements - 16 Units
POLS 503B Fiscal Management NPs 2
POLS 504B Personnel for NPs 2
POLS 581 NP Governance and Legal Issues 2
POLS 582 Planning and NP Agencies 2
POLS 583 Resource Development 4
POLS 585 Marketing and PR for NPs 2
POLS 587 Grants/Contract Management 2

Electives - 4 Units Total, can include:
POLS 507 Ethics in Administration 4
POLS 508 Comparative Public Policy 4
POLS 509 Politics of Health Care and Aging ..... 4
POLS 512 Organizational Development ..... 4
POLS 513 Leadership and Supervision ..... 4
POLS 537 Bargaining, Politics, and Administration ..... 4
POLS 551 Organizational Computer Usage ..... 4
POLS 560 Special Issues in Public Policy ..... 4
POLS 564 Aging Services Administration ..... 4
POLS 588 Issues in Nonprofit Administration ..... 4
POLS 597 Internship (max. 4 units) ..... 4
POLS 599 Thesis ..... 4

## Culminating Experience

All students in the M.P.A. program are required to complete either a thesis or a comprehensive examination prior to award of the degree. Those opting for a thesis as their culminating experience are required to complete 40 units of coursework, exclusive of prerequisites, and can include 4 units of 599 (Thesis Prep) as an elective. Students electing to take the comprehensive exam must complete 40 units of total coursework exclusive of prerequisites and POLS 596 (exam preparation).

## Certificate Program in the Administration of Nonprofit Agencies

The Political Science Department also offers a graduate certificate program in the administration of nonprofit agencies. Oriented to the needs of staff and administrators, this integrated series of courses is grounded in the study of contemporary trends in nonprofit agency administration, development, and fiscal management, and offers intensive exposure to the practical managerial techniques necessary for successful agency operation.

## Coursework for the Certificate Program in the Administration of NP Agencies

The certificate program requires 24 units of coursework from the nonprofit concentration and common core, all of which may be later applied to the master's degree in public administration. Students in the certificate program are encouraged to pursue the master's degree, though there is no requirement to do so. Students enroll in the 16 units in the nonprofit concentration, and 8 units of electives chosen from common core courses in consultation with the M.P.A. program graduate coordinator.

## PSYCHOLOGY

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Elisa Velasquez-Andrade
*Arthur Warmoth
*Faculty Early Retirement Program

## Programs Offered

Bachelor of Arts in Psychology
Minor in Psychology
Minor in Gerontology
Certificate in Gerontology
Master of Arts in Psychology through Special Sessions Depth Psychology

## What is Psychology?

Psychology is defined as the study of human behavior and experience. According to the American Psychological Association, psychology has three faces: it is a discipline, a science, and a profession. Psychology is a calling that requires one to apply special knowl-
edge, abilities, and skills in order to solve human problems. It is an extremely diverse field that attracts people with a wide variety of backgrounds, interests, and skills.

## Mission of the Psychology Department

Our department is distinguished by its focus on the quality of human experience. Founded in 1960, the department has historically been allied with the humanistic and existential traditions in psychology. This emphasis has expanded to include a diverse array of approaches to studying human experience. We now offer learning experiences in areas ranging from the experiential to the experimental, from graduate school preparation to personal growth, from individual issues to community concerns. We actively encourage the integration of various perspectives, rigorous analysis, respectful debate, and engaged skills-based learning. Our goal is to help students to develop skills in 1) knowing and evaluating their own experience, 2) understanding human experience from a variety of theoretical frameworks, 3) learning and valuing diversity and multiculturalism, and 4) applying their knowledge in concrete ways that contribute to people's quality of life. We hope to empower students with psychological skills that will enable them to be effective agents of change in the world.

## About the Psychology Department

The Psychology Department at Sonoma State University is distinguished by its focus on the quality of human experience. The key words here are distinguished, quality, human, and experience. For us, each of these words holds special significance.

Distinguished: This expresses both that the department is unique and that it has achieved recognition for this uniqueness over the years. This department offered the first graduate program in humanistic psychology and also helped to pioneer that field, with four of our members having served as president of the Association for Humanistic Psychology, an international organization. The department also has been distinctive for its pioneering work in such areas as somatics, expressive arts, biofeedback, health psychology, organization development, ecopsychology, Jungian and archetypal psychology, transpersonal psychology, interdisciplinary learning, student-directed learning, experiential learning, and learning-community approaches. This distinctiveness has led to widespread recognition. The department has stood out as a beacon for many students seeking an alternative to traditional psychology.

Quality: This word carries a number of important messages. First of all, we are interested in quality, as in excellence. At the same time, we are struck that the word quality is in ascendance in business, and elsewhere; even as we see ourselves surrounded by the deteriorating quality of our physical, social, and economic environments. We seek to develop a psychology that not only studies, but
also enhances the quality of life. The word quality also communicates that we value qualitative, as well as quantitative, research methods.
Human: While affirming our interdependence with all creatures, this word communicates our emphasis on studying uniquely human, rather than animal, phenomena.
Experience: We take the subjective realm seriously, rather than focusing exclusively on the objective. Our approach to investigation is often phenomenological, and, when possible, our approach to teaching emphasizes experiential approaches to learning, both inside and outside the classroom.
The origins of the department were closely associated with humanistic and existential psychology. Our current range of interests is reflected in the section on advising and interest areas below. Our teaching-learning model is person-centered. That is, we try to foster the unique intellectual, spiritual, and emotional growth of each student as an individual. Our approach to self-knowledge leads from a concern for a private and inner self to a wider concern for one's relationship with one's community and culture.

## Psychology Department Learning Goals and Objectives

The Sonoma State Psychology Department is one of a handful of humanistically-oriented psychology undergraduate departments in the country. We are especially strong in several areas that are not the focus of most psychology departments but are the focus of our graduate and certificate programs: organization development, depth psychology, gerontology, somatics and body-mind approaches, and biofeedback. Our diverse curriculum offers a stimulating and timely liberal arts education that responds to current student needs and supports faculty development and renewal. The department's goals and objectives are designed to support a rich and diverse list of course offerings without compromising students' abilities to learn the skills they need. We also believe that successful teaching and learning extends beyond the classroom to individual advising.

The Psychology Department curriculum is arranged to develop the following skills in each student by graduation time. The courses are designed to enable each student to:

- Be familiar with the major concepts, theories, and perspectives in psychology;
- Be able to apply psychological theories, concepts, and principles to individual experience as well as to broader social issues and social systems;
- Be able to reflect on personal experience in light of psychological knowledge;
- Be able to recognize and understand the complexity of cultural diversity, in light of psychological knowledge;
- Be able to understand and apply basic research methods in psychology and the social sciences; and
- Be able to demonstrate skills that promote behavioral change at the individual, organizational, and community levels.


## Careers in Psychology

A career in psychology opens opportunity - opportunity to break new ground in science, opportunity to better understand yourself and others, opportunity to help people live richer, more productive lives, and the opportunity for ongoing personal and intellectual growth in school and throughout your career.
Some psychologists find it rewarding to work directly with people - for example, helping them to overcome depression, to deal with the problems of aging, or to stop smoking. Others are excited by research questions on topics such as health and well being, deci-sion-making, eating disorders, brain functioning, parenting skills, forensic work, and child development. Still others find statistics and quantitative studies to be the most fascinating areas.
Traditionally, psychologists have been employed in universities, schools, and clinics. Today, more than ever before, they can be found working in businesses, hospitals, private practice, courtrooms, sports competitions, police departments, government agencies, private laboratories, and the military, among other settings.
Psychologists fill many different roles. For example, they work as teachers, teaching the discipline of psychology in universities, fouryear and two-year colleges, and high schools. Psychologists work as researchers employed by universities, government, the military, and business to do basic and applied studies of human behavior. Psychologists also work as psychotherapists, helping people to individuate and resolve conflicts. Psychologists work as counselors in school settings, working with students and their families to provide support for the students' social, cognitive, and emotional development. In addition, psychologists work as administrators, functioning as managers in hospitals, mental health clinics, nonprofit organizations, government agencies, schools, universities, and businesses. Psychologists also work as consultants hired for their special expertise by organizations to advise on the subject or problem in which the consultant is an expert, including such tasks as designing a marketing survey or organizing outpatient mental health services for adolescents.

## Careers: Graduate Work And Further Training

For most professional work in psychology, a minimum of an M.A. degree is necessary. Most of our students who go on to graduate work in psychology enter the clinical/counseling/social work fields at both the master's and the doctoral level. Other popular choices are the fields of education, research psychology, business, organizational development, and criminal justice. A 2006 survey of SSU alumni who graduated as psychology majors found that nearly twothirds of the respondents had gone on to do some sort of graduate work, most at the master's level.
Early in the major, students are encouraged to conduct Web searches on graduate training programs in their fields of interest in order to find out the specific prerequisites required in order to receive training in these areas. Students should consult the psychology department website which has extensive career information and web links to graduate schools and programs in specific areas. Some of the psychology courses and non-psychology electives should be chosen
with regard to career objectives. Students should consult with an advisor to ensure that they are taking appropriate courses.
Most master's and doctoral programs and employers prefer applicants who, in addition to their academic background, have some kind of applied internship or research assistantship that provides hands-on experience in their field.

## Careers: Bachelor's Degree In Psychology

Many undergraduate psychology majors do not go on to do graduate study. A bachelor's degree in psychology means that you graduate with a strong liberal arts education and adequate preparation for entry-level employment in one of many career paths, including:

- Administration and management
- Aging human services and advocacy
- Behavior change consulting
- Biofeedback consulting
- Child development programs
- Counseling
- Editing
- Employment interviewing
- Environmental advocacy
- Executive coaching
- Health services
- Marketing and public relations
- Organizational consulting
- Personal coaching
- Personnel and human systems
- Probation and parole
- Psychiatric assisting
- Social service casework \& advocacy
- Teaching
- Technical writing


## Bachelor of Arts in Psychology Degree Requirements

| For first-time freshmen | Units |
| :--- | ---: |
| General education | 51 |
| Major requirements | 44 |
| Electives | 25 |
| For transfer students |  |
| General education | 48 |
| Major requirements | 44 |
| Electives | 28 |
| Total units needed for graduation: | $\mathbf{1 2 0}$ |

Students who apply to transfer into the psychology major must have taken the following courses (or the equivalents):

ENGL 101 Expository Writing and Analytical Reading
PHIL 101 Critical Thinking
PSY 250 Introduction to Psychology

ENGL 101 and PSY 250 must be completed with a grade of $B$ or higher. Because psychology is a high-demand major, other prerequisites may be added between the release of one catalog and the next in order to control enrollment. Students considering transferring into the major should contact the department for current information.

## Major Requirements

The major consists of at least 40 units in psychology plus a course in statistics, which may be taken in either a psychology or mathematics department. Of these units, at least 34 must be upper-division units (courses numbered 300 or higher at SSU; numbering at other institutions may differ). Most students take a statistics course that can also be used for the General Education area $B$ requirement. All courses for the major must be passed with a grade of $C$ or better. A maximum of 12 units of Special Studies and Internship may be taken credit/no credit in the major.

## Required Courses for the Major Include:

PSY 250 Introduction to Psychology (or the equivalent), taken within the past ten years. Students who believe they possess the requisite knowledge may substitute a passing score on the CLEP test in introductory psychology administered by the Educational Testing Service at (510) 653-5400.
PSY 306 History of Modern Psychology
PSY 307 Humanistic, Existential, and Transpersonal Psychology
MATH 165 Elementary Statistics (or equivalent)

## Recommended Courses:

One research methods course
One course focusing on psychological issues in diversity and multiculturalism
Each semester, research methods courses are listed at www. sonoma.edu/users/s/smithh/methods/methods. Psychology is an academic discipline that includes the systematic analysis of human behavior, experience, and consciousness through diverse research methodologies. Students enrolled in research methods courses acquire knowledge of how to critically evaluate information from the social sciences presented in popular publications and the media, and of research skills and experience required for most psychology graduate programs and research-related jobs.

The department strongly recommends that students take courses in psychology and other disciplines that educate them about issues of diversity and multiculturalism, such as culture, race and ethnicity, sexual orientation, disability, age, religion, and social class. Courses in American multicultural studies, California cultural studies, Chicano and Latino studies, foreign languages, global studies, Native American studies, cross-cultural psychology, and women's and gender studies contribute to students' development of multicultural competence.
Students are asked to consult with an academic advisor early in their major to design a course of study that fulfills major requirements and that is in line with their interest areas and career goals. When time and interest permit, students are encouraged to consider a minor in another field, or even a double major.

## Advising and Interest Areas

The Psychology Department provides an individualized major that is tailored to meet your personal needs, interests, and directions. You should meet with an advisor no later than the second semester of your sophomore year, or if you are a transfer student, during your first semester at SSU. Your advisor will help you to design a major that will provide you with the background you need to pursue your career objectives. You are encouraged to come in for advising before the scheduled "advising for registration" period; faculty are more likely to be readily available earlier in the semester.

Students may choose an advisor or are assigned an advisor according to the interest areas they indicate on the advising questionnaire. Students may also change advisors at any time. The following interest areas can be used as a guide for designing the major program and for choosing an advisor:

- Adulthood and Later Life Development
- Clinical/Counseling Psychology
- Creative and Expressive Arts
- Cultural Psychology
- Developmental Psychology
- Depth and Jungian Psychology
- Ecopsychology
- Humanistic Psychology
- Personality Psychology
- Research Methods
- Social, Community, and Organizational Psychology
- Somatics/Biofeedback/Health/Performance Psychology
- Teaching Credential Preparation
- Transpersonal Psychology
Sample Four-Year Program for
Bachelor of Arts in Psychology

FRESHMAN YEAR:: 30 Units

## Fall Semester (16 Units)

UNIV 102 (optional) (3) HUM 200 (3)
ENGL 101 (3) MATH 165 (4)
GE (3)
BIOL 110 (4) PHIL 101 (3)
PSY 250 (3)

## SOPHOMORE YEAR:: 32 Units

| Fall Semester (16 Units) | Spring Semester (16 Units) |
| :--- | ---: |
| PSY Lower-Division Elective (4) | PSY 306 (4) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
| GE (3) | Elective (3) |


| JUNIOR YEAR:: 30 Units |  |
| :---: | :---: |
| Fall Semester (15 Units) | Spring Semester (15 Units) |
| PSY 307 (4) | Upper-Division GE (3) |
| PSY Elective (4) | PSY Elective (4) |
| PSY Elective (4) | PSY Elective (4) |
| Upper-Division GE (3) | PSY Elective (4) |
| SENIOR YEAR:: 28 Units |  |
| Fall Semester (14 Units) | Spring Semester (14 Units) |
| Upper-Division GE (3) | PSY Elective (4) |
| PSY Elective (4) | PSY Elective (4) |
| PSY 499, 481 (4) | Elective (3) |
| Elective (3) | Elective (3) |
| TOTAL UNITS:: 120 |  |

## Minor in Psychology

Students seeking a minor in psychology are encouraged to consult with a psychology faculty advisor for assistance in planning a series of courses tailored to their own personal and career goals. The requirements of the minor are:

1. Completion of PSY 250 Introduction to Psychology (or equivalent), with a grade of $B$ or better.
2. Completion of 20 units of upper-division psychology courses, with a minimum grade of C .16 units must be taken for a letter grade.

## Minor in Gerontology

The minor in gerontology provides students with a focused multidisciplinary program to study the aging process. The minor gives students a solid academic foundation in the field and offers practical applications through the internship. Students receive a strong theoretical orientation based in the liberal arts tradition and practical information about aging. The requirements include 22 units incorporating biology, psychology, and the social aspects of aging, and 6 elective units. Specific courses are listed under Gerontology in the catalog.

## Internships

The Psychology Department strongly recommends community internship experience, particularly for the student going on to counseling or clinical psychology master's and doctoral degrees.

Each semester a number of advanced undergraduate and graduate students participate in field placements and internship work experiences in organizations and agencies throughout the University's six-county service area. These internships involve on-the-job training by the agency as well as academic work under the supervision of a faculty member. This forms an important base for academic credit and helps the student obtain a range of learning experiences
not otherwise found in the department. Applications for internship should be made near the end of the semester preceding the internship semester. A maximum of 8 units of PSY 499 Internship can be applied toward the major. Students planning on graduate work in clinical or counseling psychology are encouraged to gain internship experience well before applying to graduate school.

## Research Assistantships

The Psychology Department strongly recommends research assistantships for those students going on to graduate work in psychology at the master's or doctoral levels. Many university graduate programs require students to have experience in designing and conducting psychological research, as well as in analyzing data and writing up the results. In order to find out more about these research opportunities, students should consult with individual faculty members who are mentoring students in their own research projects.

## Special Studies

Students who wish to carry out independent study and research are encouraged to contact an individual faculty member of their choice.

## Master of Arts in Psychology, Depth Psychology Concentration

The Psychology Department, working in conjunction with the School of Extended Education, offers a Master of Arts in Psychology with a depth psychology concentration. The M.A. program is a selfsupport program administered through Special Sessions and funded entirely through student fees.

University policy requires students in master's programs to maintain continuous enrollment until completion of the M.A. program, or pay a continuing enrollment fee of $\$ 250.00$ per semester.

University policy also requires students who take four semesters to complete their thesis/project to enroll in PSY 599, Master's Thesis.

For information about the program visit the website www. sonoma.edu/psychology/depth. Applications may be downloaded on the website, or contact the graduate administrative specialist, (707) 664-2130, psychma@sonoma.edu. You may also write to:

Psychology M.A.
Psychology Department
Sonoma State University
Rohnert Park, CA 94928-3609

## Curriculum in Depth Psychology

The Depth Psychology curriculum offers a strong, supportive smallgroup learning environment within a structured 36-unit two-year curriculum. In the first year, the 12-15 member cohort group takes three year-long foundational courses. The theories course explores the basic concepts of Jungian psychology, which is a language for understanding in depth the movements of the psyche. The symbolic methods course involves training in symbolic work in artistic media; myth and storytelling; dreamwork; ritual; and sound, voice,
movement, and embodied depth techniques. The cross-cultural mythology course focuses on common archetypal motifs across cultures and incorporates earth-based healing techniques such as the medicine walk, council, initiation and rites of passage, and shamanistic practice.

In the second year, students explore depth inquiry with a research methods and master's thesis class, engage in interpersonal process, and choose seminars oriented around student interests. Students are encouraged to participate in internships or teaching assistantships in their second year in order to gain additional skills training. Students may choose to teach an undergraduate course in their field of expertise in the SSU psychology department; the program advisor assists students in developing curriculum and supervises the internship teaching experience. Students also have the option, at additional expense, of enrolling in University courses that meet their specific learning needs.

The master's thesis provides the opportunity for passionate inquiry into an area of deep interest. Students use symbolic depthinquiry methods involving art, dreamwork, active imagination, sacred practices, and interviewing to explore their area of passionate concern. The thesis is often a study that symbolically explores psychological development. Master's projects may involve scholarly research, personal reflection, artistic inquiry, curriculum development and teaching, applications in the work world, and creative artistic productions. The thesis evening in May completes the thesis process.

The monthly Public Programs in Depth Psychology invites noted authors, analysts, therapists, and practitioners to a half-day lecture and lunch in the Depth community.

The program in Depth psychology is designed to move students to the next step in their personal and professional development. Graduates go on to teach, to work in community mental health services and non profits, to pursue clinical training in master's and doctoral programs, to facilitate personal growth, and to research and write in the field of depth psychology.

## Program of Study

The program includes the following courses:
PSY 511A,B Theories of Depth Psychology
PSY 515 Psychological Writing
PSY 530A,B Seminar in Interpersonal Process
PSY 542A,B Methods and Applications of Depth Psychology
3,3
PSY 543A,B Cross-Cultural Mythology and Symbolism 3,3
PSY 570 Directed Field Experience 1-3
PSY 575 Research Methods 2
PSY 576 Seminar in Depth Psychology 1-5
PSY 582 Teaching College Psychology (optional) 3-4
PSY 584 Graduate Teaching Assistant (optional) 1-4
PSY 599A,B Master's Thesis: Project and Directed Reading 3,3

## Prerequisites for Admission

Course prerequisites are required for admission and are designed to give students a foundation in the field of psychology and in symbolic expression. The Depth Psychology program has the following prerequisites:

1. B.A. or B.S. from an accredited institution;
2. Minimum GPA of 3.00 in the last 60 units of coursework;
3. An acceptable level of competence in oral and written communication, as demonstrated by the coherence of the personal statement and an oral interview;
4. Emotional maturity, as demonstrated in the applicant's personal written statement, life experiences, and oral interview;
5. Four area prerequisites (a maximum of 9 units may be lower-division courses completed at a community college): development, personality, abnormal psychology, and research methods in psychology; and
6. A minimum semester-long experience in symbolic forms (art, dream work, writing, and/or poetry) and reflection on that expression for personal growth.

## Fees

Fees are set in consultation with the School of Extended Education.
Refer to the Depth Psychology website for additional information: www.sonoma.edu/psychology/depth.

DEPARTMENT OFFICE

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(707) 664-2561
www.sonoma.edu/sociology
DEPARTMENT CHAIR
Melinda Milligan
ADMINISTRATIVE ANALYST
Lisa Kelley
ADMINISTRATIVE COORDINATOR
Katherine Musick

## Faculty

Noel Byrne
Kathleen Charmaz
James Dean
Myrna Goodman
Sheila Katz
Elaine Leeder
Melinda Milligan
Peter Phillips
Cindy Stearns

## Programs Offered

## Bachelor of Arts in Sociology

Minor in Sociology
Sociological research attempts to improve the human condition within the context of a strong tradition of social justice and human equality. Society shapes attitudes, goals, hopes and aspirations, and personal preferences. Society affects individuals, groups, and entire nations. Yet at the same time that society is shaping the individual, the individual is shaping society. In order to understand oneself and others, the world, and the future, one has to understand society. Sociology is the discipline that studies groups and societies-what they are, how they got that way, and what impact they have.

Sociology is a field with diverse areas of study. These range from the behavior of the individual as a social actor to the structure of entire societies. Key topics include social psychology, socialization, deviant behavior, group behavior, organizations and institutions, power, inequality, and social change. Major social institutions, including the family, education, religion, social welfare, medicine, work, politics, leisure, and the media, are also explored in detail. To develop skills for studying society, students are introduced to valuable techniques such as survey research, sampling, observational methods, content analysis, experimentation, interviewing, and computer applications in research.

Because sociology is a core subject for any liberal arts education, the department offers a variety of courses of interest to non-majors.

These concern such current social issues as the problems of ageing, drugs and society, social inequities, media, education, globalization, and the information revolution.

The major has been designed to allow each student, in consultation with an advisor, to develop an individualized program of study. The required courses ensure a solid grounding in sociological concepts, theories, and research methods.

By the time students graduate, they will:

- Create clear, succinct analysis in writing and speaking;
- Understand the structure and logic of the full range of the discipline;
- Formulate critical and analytic questions about society and be able to investigate them through original research;
- Demonstrate competence in handling databases and in using appropriate technical tools; and
- Apply theory and methods in sustained independent inquiry.


## Careers in Sociology

Sociology provides an excellent preparation for a wide range of careers. A bachelor's degree in sociology qualifies one for opportunities in national, state, and local government, including research, public administration, personnel, and planning. The major can lead to positions in human services and social advocacy, including alcohol and drug rehabilitation, health agency administration, counseling, recreation, senior services, social welfare, vocational, and rehabilitation counseling. Applications of sociology in business include organizational management, human relations, union organization, industrial relations, communication consulting, public relations, and marketing. Sociology constitutes valuable coursework in preparation for graduate study in law, business, and a variety of human services professions, as well as doctoral programs in sociology and related academic fields. Before graduation, sociology majors can establish internships that lead to valuable professional contacts and provide practical experience in pursuing these and additional career paths.

The department has a chapter of the national sociology honor society Alpha Kappa Delta, and it awards a C. Wright Mills Award for Sociological Imagination on an annual basis for the best original research paper produced by a student in the department.

Every year the Joseph J. Byrne Memorial Scholarship is awarded to an outstanding student majoring in sociology.
The department also awards the Robert Holzapfel Scholarship to a student majoring in sociology or counseling.

## Bachelor of Arts in Sociology

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Sociology courses | 40 |

## Major Requirements

This requirement list and advising guide is designed for students entering the sociology major beginning in fall 2010. Students who entered the major in earlier semesters may follow the requirements listed in this worksheet or they may complete their requirements using the earlier advising guide.

SOCI 201 Introduction to Sociology
SOCI 300 Sociological Research Methods 4
SOCI 375 Classical Sociological Theory 4
Methods Seminar (see below) 4
SOCI 498 Senior Seminar
Total units $\quad 19$
A student must take SOCI 201 before proceeding to any other required sociology course and take SOCI 300 before taking a methods seminar. SOCI 300, a methods seminar, SOCI 375, and a total of 20 upper-division units of sociology are required before a student will be allowed to enroll in SOCI 498. (Note: SOCI 300, the methods seminar, and SOCI 375 are included as part of the 20 upper-division sociology units.)

Students must earn a minimum grade in each of the five required courses. See a faculty advisor in the department for details on these minimum grade requirements.

## Methods Seminar

The Methods Seminar furthers students' methodological skills in a wide choice of substantive areas. Students must take one of the following seminars or another course designated as a methods seminar.

SOCI 414 Methods Seminar: Social Interaction
SOCI 418 Methods Seminar: Social Development of Self
SOCI 425 Methods Seminar: Urban Sociology
SOCI 441 Methods Seminar: U.S. by the Numbers
SOCI 443 Methods Seminar: Women and Social Policy
SOCI 452 Methods Seminar: Health Care and IIIness
SOCI 463 Methods Seminar: Bureaucracies and Institutions
SOCI 470 Methods Seminar: Culture and Identity
SOCI 480 Methods Seminar: Sociology of Work
SOCI 484 Methods Seminar: Sociology of Genocide

## Sociological Experience Requirement

The sociological experience requirement provides students with curricular opportunities to develop awareness of social issues, use sociological perspectives and methods to address social problems, engage with the community outside of the university, develop experiences that provide job skills, and enhance their knowledge about careers. Majors must take one of the following courses or another course designated as meeting the sociological experience requirement.

SOCI 306 Careers in Sociology
SOCI 336 Investigative Sociology
SOCI 432 Group Work with Other Adults
SOCI 482 Sociology of the Environment
SOCI 488 Selected Topics in Service Learning
SOCI 496 Internship Practicum (concurrent with SOCI 499)

## Additional Major Requirements

$\begin{array}{ll}\text { Substantive areas courses } & 6-12\end{array}$
Upper-division sociology electives
(chosen in consultation with a department advisor) $\quad 9-15$
Total Units in the Major 40

## Substantive Areas of Sociology

Majors must take a minimum of one upper-division course in three of the five substantive areas below. Additional area courses may be offered in a given semester. Consult with an advisor.

## Microsociology

This area assumes human agency and social action as fundamental to social life and takes into account both thinking and feeling in defining situations and in constructing actions. Microsociology focuses on reciprocal relationships between self and society with emphasis on:

- The social shaping of self, identity, and role;
- The interaction between self and others; and
- The development, maintenance, and change of subjective and social meanings. Applying microsociological approaches to status variables such as gender and age reveals how they are constructed, given meaning, and played out in individual lives.

SOCI 314 Deviant Behavior (cross-listed with CCJS)
SOCI 315 Socialization
SOCI 317 Emotions and Adult Life (cross-listed with GERN)
SOCI 319 Aging and Society (cross-listed with GERN)
SOCI 326 Social Psychology (cross-listed with PSYCH)
SOCI 350 City and Community Life
SOCI 414 Methods Seminar: Social Interaction
SOCl 417 Sociology of Mental IIIness
SOCI 418 Methods Seminar: Social Development of the Self
Organizations, Occupations, and Work
This area addresses both organizational dynamics and their relation to broader societal processes. These include organizational cultures, structures, processes, and outcomes. Knowledge of these matters is relevant to students interested in human services, business, nonprofit agencies, education, and criminal justice administration.

SOCI 306 Careers in Sociology
SOCI 365 Human Services Administration
SOCI 366 Juvenile Justice (cross-listed with CCJS)

SOCI 432 Group Work with Older Adults (cross-listed with GERN and PSYCH)
SOCI 450 Punishments and Corrections (cross-listed with CCJS)
SOCI 451 Sociology of Education
SOCI 461 Social Work and Social Welfare
SOCI 463 Methods Seminar: Bureaucracies and Institutions
SOCl 480 Methods Seminar: Sociology of Work
SOCI 485 Organizations and Everyday Life
SOCI 496 Internship Practicum (concurrent with SOCI 499)

## Macrosociology

Courses in this area investigate large social structures, institutions, networks, and processes that define and shape individual and organizational behavior, and that contribute to social and public policy. This area provides a conceptual overview of diverse social institutions. Macrosociology gives the student new insight into American society and its problems and possibilities from both the personal and professional perspectives.

SOCI 301 Statistics for Sociologists
SOCI 335 American Society
SOCl 340 Drugs and Society (cross-listed with CCJS)
SOCI 345 Sociology of Families
SOCI 347 American Class Structure
SOCI 363 Sociology of Race and Ethnicity
SOCI 377 Contemporary Sociological Theory
SOCI 383 Social Change
SOCI 384 Sociology of Consumption
SOCI 425 Methods Seminar: Urban Sociology
SOCI 440 Sociology of Reproduction (cross-listed with WGS)
SOCl 441 Methods Seminar: U.S. by the Numbers
SOCI 443 Methods Seminar: Women and Social Policy
SOCI 445 Sociology of Childhood and Adolescence
SOCI 452 Methods Seminar: Health Care and IIIness
SOCI 488 Selected Topics in Service Learning

## Culture

Courses in the sociology of culture introduce students to central social forms that generate, transmit, and/or critique values, ideas, ideologies, lifestyles, and popular culture. Topics include the ways in which culture can act as a socializing agent reaffirming the existing social order or providing impetus to change, helping integrate societies or contributing to dissension. Students considering careers in the media, education, human services, and recreation are among those who will find these classes of special value.

SOCl 312 Sociology of Gender
SOCI 330 Sociology of Media
SOCI 331 Mass Communications Theory and Research (cross-listed with COMS)
SOCI 332 Death and American Culture
SOCI 336 Investigative Sociology
SOCI 360 Sociology of Sexualities
SOCl 385 Sociology of Culture
SOCI 430 Sociology of Leisure
SOCI 431 Sociology of Religion
SOCI 434 Cinema and Society

SOCI 435 Media Censorship
SOCI 470 Methods Seminar: Culture and Identity

## Transnational Sociology

Transnational sociology provides a comparative perspective on societies throughout the world. Economic, political, and social institutions and dynamics are examined and compared. Among specific topics are comparative ideologies, roles, world elites, and local communities. Courses in transnational sociology explore these consequences and their long-term implications. Students interested in a historical and comparative examination of international issues would be well served to take courses in this area.

SOCI 305 Perspectives on the Holocaust and Genocide
SOCI 380 Political Sociology
SOCI 381 Population and Society
SOCI 382 Social Movements and Collective Behavior
SOCI 449 Sociology of Power
SOCI 482 Sociology of the Environment
SOCI 484 Methods Seminar: Sociology of Genocide

## Sample Four-Year Program for Bachelor of Arts in Sociology

The following is a sample study plan only. The sequence and specific courses given are suggestive; please see an advisor each semester to plan your personal program.

FRESHMAN YEAR:: 31 Units

| Fall Semester (16 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| ENGL 101 (3) | PHIL 101 (3) |
| GE Mathematics (3) | GE Physical Science (3) |
| GE BIOL 115 (3) | GE World History (3) |
| UNIV 102 First Year Experience (3) | SOCI 201 (3) |
| Electives (4) | CIS 101 (3) |

SOPHOMORE YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :---: | :---: |
| HUM 200 (3) | GE Social Sciences (6) |
| GE History/Political Science (6) | History of the Fine Arts (3) |
| GE Comparative Perspectives \& F | guages (3) GE World Literature (3) |
| Electives (3) | Electives (3) |
| JUNIOR YEAR:: 30 Units |  |
| Fall Semester (15 Units) | Spring Semester (15 Units) |
| SOCI 300 (4) | SOCI 375 (4) |
| Sociology Organizations Area (4) | Sociology Microsociology Area (4) |
| Sociology UD Electives (4) | UD GE Integrated Person (3) |
| UD GE Philosophy and Values (3) | Electives (4) |

## SENIOR YEAR:: 29 Units

| Fall Semester (16 Units) | Spring Semester (13 Units) |
| :---: | :---: |
| Sociology Methods Seminar (4) | SOCI 498 (4) |
| Sociology Transnational Area (4) | SOCI 499 (4) |
| UD GE Contemporary International Perspectives (3) | Electives (5) |
| Electives (5) |  |

## Minor in Sociology

SOCl 201 Introduction to Sociology 3
Upper-division courses in sociology chosen in consultation with an advisor 17
Total units in the minor 20

## DEPARTMENT OF MATHEMATICS AND STATISTICS

Darwin Hall 114
phone: (707) 664-2368
fax: (707) 664-3535
www.sonoma.edu/math
DEPARTMENT CHAIR
Sam Brannen
STATISTICS PROGRAM ADVISORS
Susan Herring
Elaine McDonald-Newman
Scott Nickleach
ADMINISTRATIVE COORDINATOR
Marybeth Hull

## Faculty

*William Barnier
Sam Brannen
*Sharon Cabaniss
Jean Bee Chan
Ben Ford
Susan Herring
Izabela Kanaana
Brigitte Lahme
*Rick Luttmann
Elaine McDonald-Newman
*Edith Prentice Mendez
Jerry Morris
Scott Nickleach
Sunil Tiwari
*Faculty Early Retirement Program

## Programs Offered

Bachelor of Science in Statistics
Bachelor of Arts in Applied Statistics
Minor in Applied Statistics
Preparation for Actuarial Examinations

Mathematics and statistics are rapidly growing disciplines whose concepts and applications play an ever-increasing part in modern life. Statistics has long been an essential tool in the physical sciences and has more recently been applied extensively in such diverse areas as medical and biological research, environmental studies, management science, behavioral and social sciences, and economics. Our basic curriculum is designed to give students the skills necessary for success in business, industry, government, and teaching. In addition, these degrees will provide a sound background for continuation of study toward advanced degrees in statistics, or a quantitative
foundation for graduate school in disciplines such as business, economics, biology, or other fields.

The B.A. in applied statistics is intended for students pursuing a degree in another discipline such as economics, psychology, biology, or others. These students may be interested in taking more statistics classes to prepare themselves for jobs in industry or success in graduate school in another field. The B.A. allows upperdivision units from another major to count as part of the "area of concentration", and is focused on developing practical skills such as regression analysis and ANOVA, and on gaining proficiency with statistical software packages such as SAS and SPSS. Students are strongly encouraged to earn the B.A. as part of a double major in a complementary field.

The B.S. in statistics is a rigorous program for students who intend to pursue a career as a statistician or who wish to go to graduate school in statistics or mathematics. Students earning the B.S. will learn the same practical skills as those taking the B.A. Additionally, they will take theoretical courses in linear algebra, analysis, mathematical statistics, and stochastic processes. This program follows the guidelines proposed by the American Statistical Association in the Curriculum Guidelines for Undergraduate Programs in Statistical Science.

Both programs will prepare students for work in areas including government and industry, biostatistics, actuarial work, and consultative problem-solving in modern industry.

## Careers in Statistics and Actuarial Sciences

According to the American Statistical Association the demand for statisticians in the workforce is dramatically increasing. Statisticians can find employment in a variety of fields. Biomedical, pharmaceutical, engineering and marketing companies, and government agencies seek employees with statistical skills to analyze large data sets. Many students find lucrative jobs as SAS programmers.

In addition, statistics students with an interest in finance or economics will be interested in pursuing a career as an actuary. The courses in both the BA and BS provide a solid preparation for the first actuarial exam and the Applied Statistical Methods educational experience credit. Actuaries have been ranked in the top 5 careers in the US for salary and job satisfaction since 1988.

## Learning Objectives for the B.A. and B.S.

- Describe data sets using appropriate numerical and graphical techniques;
- Develop mathematical tools necessary to perform statistical calculations and to understand distributions and statistical theory;
- Design experiments and survey sampling methods that allow results to be statistically analyzed to test hypotheses of interest;
- Determine which statistical analyses are suitable, perform the analyses using technology, and assess the validity of necessary assumptions and interpret the results;
- Construct and apply probability models for both discrete and continuous random variables; and
- Communicate with non-statisticians in written and oral formats to learn what a client is interested in ascertaining and to present the results from a statistical analysis.

Additionally, for the B.S. in statistics:

- Construct and verify mathematical proofs;
- Discuss properties of estimators and explain the rationale and assumptions behind statistical procedures; and
- Apply stochastic models to solve real-world problems.


## B.S. in Statistics

| Degree Requirements | Units |
| :--- | ---: |
| General education (51 units, 3 units |  |
| covered by major requirements) | 48 |
| Major (includes 3 units in GE) | 52 |
| Electives | 20 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

MATH 161 Differential and Integral Calculus I 4
MATH 165 Elementary Applied Statistics 4

MATH 211 Differential and Integral Calculus II 4
MATH 220 Higher Mathematics: an Introduction 3
MATH 241 Differential Equations with Linear Algebra 4
MATH 261 Multivariable Calculus 4
MATH 265 Intermediate Applied Statistics with SPSS 4
MATH 322 Linear Algebra 3
MATH 340 Real Analysis I 4
MATH 345 Probability Theory 4
MATH 367 Statistical Consulting and Communication 2
MATH 381 Computing for Statistics: SAS Programming Language 2
MATH 445 Mathematical Statistics and Operations Research 4
MATH 465 Experimental Design and Regression Analysis 4
MATH 467 Statistical Consulting, Communication, and Project Management
Total units in B.S. program

## Sample Four-Year Program for Bachelor of Science in Statistics

FRESHMAN YEAR:: 28 Units

## Fall Semester (14 Units)

Spring Semester (14 Units)
MATH 161 (GE) (4)
MATH 211 (4)
MATH 165 (4)
MATH 265 (4)
GE (3)
GE (3)
GE (3) GE (3)

SOPHOMORE YEAR:: 31 Units

| Fall Semester (15 Units) | Spring Semester (16 Units) |
| :---: | :---: |
| MATH 241 (4) | MATH 261 (4) |
| MATH 367 (2) | MATH 322 (3) |
| MATH 220 (3) | GE (3) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
| JUNIOR YEAR:: 31 Units |  |
| Fall Semester (16 Units) | Spring Semester (15 Units) |
| MATH 345 (4) | MATH 381 (2) |
| GE (3) | MATH 445 (4) |
| Elective (2) | GE (3) |
| Elective (3) | GE (3) |
| Elective (4) | Elective (3) |
| SENIOR YEAR:: 30 Units |  |
| Fall Semester (15 Units) | Spring Semester (15 Units) |
| MATH 467 (2) | MATH 340 (4) |
| Elective (3) | GE (3) |
| GE (3) | GE (3) |
| GE (3) | Elective (3) |
| MATH 465 (4) | Elective (2) |
| TOTAL UNITS:: 120 |  |

## B.A. in Applied Statistics

| Degree Requirements | Units |
| :--- | ---: |
| General education (51 units, 3 units |  |
| covered by major requirements) | 48 |
| Major (includes 3 units in GE) | 38 |
| Required Area of Concentration | 12 |
| Electives | 22 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

MATH 161 Differential and Integral Calculus I 4
MATH 165 Elementary Applied Statistics 4
MATH 211 Differential and Integral Calculus II 4
MATH 241 Differential Equations with Linear Algebra 4
MATH 261 Multivariable Calculus 4
MATH 265 Intermediate Applied Statistics with SPSS 4
MATH 345 Probability Theory 4
MATH 367 Statistical Consulting and Communication 2
MATH 381 Computing for Statistics: SAS Programming Language 2
MATH 465 Experimental Design and Regression Analysis 4
MATH 467 Statistical Consulting, Communication, and Project Management 2
Total units in applied statistics program
38

## Required Area of Concentration:

Upper-division courses in one other field chosen in consultation with and approved by an advisor in the Department of Mathematics and Statistics

Total units in B.A. program

## Sample Four-Year Program for Bachelor of Arts in Applied Statistics

FRESHMAN YEAR:: 28 Units

| Fall Semester (14 Units) | Spring Semester (14 Units) |
| :---: | :---: |
| MATH 161 (GE) (4) | MATH 211 (4) |
| MATH 165 (4) | MATH 265 (4) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
| SOPHOMORE YEAR:: 31 Units |  |
| Fall Semester (15 Units) | Spring Semester (16 Units) |
| MATH 241 (4) | MATH 261 (4) |
| MATH 367 (2) | GE (3) |
| GE (3) | GE (3) |
| GE (3) | GE (3) |
| Elective (3) | Elective (3) |
| JUNIOR YEAR:: 31 Units |  |


| Fall Semester (16 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| MATH 345 (4) | MATH 381 (2) |
| Area of Concentration (3) | Area of Concentration (3) |
| GE (3) | GE (3) |
| Elective (2) | GE (3) |
| Elective (4) |  |
|  |  |
|  |  |
|  |  |
|  | SENIOR YEAR:: $\mathbf{3 0}$ Units (4) |


| Fall Semester (15 Units) | Spring Semester (15 Units) |  |
| :--- | ---: | ---: |
| MATH 465 (4) | Area of Concentration (3) |  |
| MATH 467 (2) | GE (3) |  |
| Area of Concentration (3) | GE (3) |  |
| GE (3) | Elective (3) |  |
| GE (3) | Elective (3) |  |
|  |  |  |
|  |  |  |

## Minor in Applied Statistics

Twenty units are required. These must include MATH 165, MATH 265, MATH 367, MATH 381, MATH 467, and at least 6 units from statistically relevant courses in the department or elsewhere at Sonoma State University chosen in consultation with and approved by an advisor in the Department of Mathematics and Statistics.

## Actuarial Science Career Preparation

Students interested in a career in actuarial science can prepare for the first two actuarial examinations by taking the following courses:

1. For Actuarial Exam 1: MATH 161, MATH 211, MATH 261, and MATH 345.
2. For Actuarial Exam 2: MATH 303, BUS 370, BUS 470, and ECON 375.

## Entry-Level Mathematics (ELM) Requirement

Unless exempted, the Entry-Level Mathematics Examination must be taken within the past two years before enrollment in any general education course or developmental mathematics course (MATH 35 or 45 ). The ELM results will place the student in the appropriate level of mathematics courses. Note that if placement in the developmental mathematics sequence is necessary, satisfactory completion of MATH 45 is required for placement in MATH 103, 104, 105, 107, 111, 131, 141, 150, and 165. Please consult the Schedule of Classes or telephone the Office of Testing Services for times and places of examination. The examination will be given in conjunction with the English Placement Test. For additional information, please see the Admissions section of this catalog.

## Grading Policy in the Department of Mathematics and Statistics

## Non-majors

All mathematics and statistics courses except MATH 35, 45, 103, $104,105,107,111,131,141,150,161$, and 165 are available in the $\mathrm{Cr} / \mathrm{NC}$ grading mode to non-mathematics majors.

## All Students

MATH 175, 210, 295, 330, 390, 395, and 499 are available only as $\mathrm{Cr} / \mathrm{NC}$.

## Mathematics and Statistics Majors and Minors

A statistics major or minor must take all mathematics and statistics courses in the traditional grading mode, with the exceptions of courses offered only in the Cr/NC modes: MATH 107W, 161W, 175, 210, 211W, 295, 330, 390, 395, and 499, and any course taken as credit by challenge examination (please see more information on this in the Admissions section of this catalog). Majors are advised to take PHIL 102 for the GE category A3 (Critical Thinking).

## Statistics Courses

Please see course titles and descriptions under the Mathematics section of this catalog.

## THEATRE ARTS AND DANCE

## Acting / Dance / Technical Theatre / General Theatre

## DEPARTMENT OFFICE

Ives Hall 207
(707) 664-2474
www.sonoma.edu/theatre

## DEPARTMENT CHAIR

Paul Draper
PERFORMING ARTS PROGRAM SPECIALIST
Shelley Martin

## Faculty

Acting: Paul Draper, Danielle Cain, Stephanie Hunt, Doyle Ott, Tori Truss

Dance: Kristen Daley, Bernadette Alverio, Jennifer Jaffe, *Nancy Lyons, Scott Wells, Rebecca Wilson

Drama: Scott Horstein, Judy Navas
Technical Theatre: Anthony Bish, Peter Crompton
*Faculty Early Retirement Program

## Guest Artists

Joe Goode Performance Group, Rennie Harris, Peggy Hackney, Kathleen Hermesdorf, Claire Porter, Shelley Senter, Leibe Wetzel and "Lunatique Fantastic," JoAnne Winter/Susan Harlow and "Word for Word Performing Arts Company," Doug Elkins, Callie Floor, Theo Bridant, Amanda McTigue, John Sullins, Mikiko Uesugi, Peter Crompton, Brent Lindsay, Mark Haim, Tracy Ward, Adrian Elfenbaum

## Programs Offered

Bachelor of Arts in Theatre Arts with a
Concentration in Acting
Concentration in Dance
Concentration in Technical Theatre
General Theatre Degree
Minor in Theatre Arts (with acting, dance, drama emphases)
The Department of Theatre Arts and Dance provides a rigorous and nurturing learning context where students explore and share their passions and aptitudes toward the making of theatre and dance. Through a rich set of courses, a wide range of performance styles and opportunities, personal contact with faculty and guest artists, focused and comprehensive individual advising, and a supporting and caring staff, SSU theatre arts and dance majors and minors gain a deep impression of ensemble and individual creativity, and a lasting sense of community.

The department is committed to creating, teaching, and learning about theatre that enlightens as well as entertains, that explores the
values and ideas of many cultures and times, and that contributes to the artistic and personal growth of our students, faculty, and audiences. Faculty work to create a learning environment that is a model for the collaborative work of theatre in which student and teacher are equally important and respected.

The department believes that theatre artists - dancers, actors, singers, directors, playwrights, choreographers, designers, and technicians - are engaged in various ways of exploring, shaping, and communicating human experience. Our students learn that theatre can be a place in which values and beliefs, both personal and societal, are tested, deepened, and often reshaped through the making of theatrical performance. By entering into the world of a theatre or dance production, students temporarily assume the reality of the experiences, personalities, and beliefs of the characters and situations. In so doing, students are presented with unique opportunities to develop artistic skill and kinesthetic intelligence while growing in human understanding and empathy. Making theatre helps participants discover who they are, what they truly believe about theatre and life, and to express their own beliefs through theatre and dance.

Our theatre and dance faculty cultivate innovative approaches to theatre and dance, while respecting and learning from the past. The department offers numerous performance opportunities and actively encourages and supports the development of new work by both students and faculty.

The Theatre Arts program is closely associated with SSU's Music Department, especially in the area of voice and music theatre. Together, the Department of Theatre Arts and Dance and the Music Department form the School of Performing Arts which offers over 200 student performances of theatre, dance, and music each year.

## Bachelor of Arts in Theatre Arts with Concentration in Acting

The acting concentration offers intensive training in acting, with supporting courses in voice, theatre production, theatre history, dramatic literature and directing, technical theatre, and special topics. We offer numerous performance opportunities including new works, playwriting, contemporary and modern plays, Shakespeare and other classics, and music theatre.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Theatre arts requirements | 50 |
| Electives | 19 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Phase I, required for acting concentration (freshman and sophomore years)

Students must complete Phase I before Phase II.
THAR 202 Intro to the History of Drama and Dance: Origins to 1800
THAR 203 Intro to the History of Drama and Dance: 1800 to present (strongly recommended)

| THAR 120B Acting: Fundamentals for Acting Concentration Majors |  |  |
| :---: | :---: | :---: |
| THAR 220A Acting: Text and Scene Study |  |  |
| THAR 220B Acting: Characterization (strongly recommended) |  |  |
| Any two of the following three technical theatre classes: <br> * Prerequisite or concurrent enrollment in THAR 143A. |  |  |
| THAR 143B* Costumes |  |  |
| THAR 144A* Lighting |  |  |
| THAR 144B* Scenery |  |  |
| THAR 145A Voice for the Actor (strongly recommended) |  |  |
| THAR 145B Speech for the Actor (strongly recommended) |  |  |
| Total units required in Phase I 12 |  |  |
| Phase II, required for acting concentration (junior and senior years) |  |  |
| THAR 300 Theatre in Action |  |  |
| THAR 320A Intermediate Acting Block A |  |  |
| THAR 320B Intermediate Acting Block B |  |  |
| ENGL 339 Introduction to Shakespeare (strongly recommended) |  |  |
| THAR 350 Directing Workshop |  |  |
| THAR 370A Early Plays: Evolution and Innovation |  |  |
| THAR 370B Modern Plays: Evolution and Innovation |  |  |
| THAR 400 Theatre of Today |  |  |
| THAR 420A Advanced Acting Block A |  |  |
| THAR 420B Advanced Acting Block B |  |  |
| Theatre Arts electives |  |  |
| Total units in Phase I |  |  |
|  | ts in Phase II |  |
| Total units in the acting concentration 48 |  |  |
| Sample Four-Year Program for Bachelor of Arts in Theatre Arts - Acting Concentration |  |  |
| FRESHMAN YEAR:: 31 Units |  |  |
| Fall Semester (16 Units) Spring Semester (15 Units) |  |  |
| THAR 120B (2) THAR 120B (2) repeat |  |  |
| THAR 143A (2) THAR 144A (2) |  |  |
| THAR 145 A (1) THAR 145B (1) |  |  |
| UNIV 150 (5) GE (A2 \& A3) THAR 302 (3) elective |  |  |
| Additional GE (6) | UNIV 150 (4) |  |
|  | Additional GE (3) |  |
| ALTERNATIVE FRESHMAN YEAR:: 30 Units |  |  |
| Fall Semester (15 Units) | Spring Semester |  |
| THAR 116 (1) | THAR 203 |  |
| THAR 110 (1) |  |  |
| THAR 143A (2) | THA |  |
| THAR 145A (1) | THAR 145B |  |
| THAR 143B (2) |  |  |


| SOPHOMORE YEAR:: 31 Units |  |
| :--- | ---: |
| Fall Semester (16 Units) | Spring Semester (16 Units) |
| THAR 202 (C1 GE) (4) | THAR 203 (C1 GE) (4) |
| THAR 220A (2) | 220 B (2) |
| THAR 143B (2) | THAR 325 (2) |
| THAR 302 (3) Elective | ENG 339 (3) |
| GE (5) | GE (6) |
|  |  |

## Bachelor of Arts in Theatre Arts with Concentration in Dance

The dance concentration offers dance and movement studies with an emphasis on choreography, performance, and somatic approaches to dancing, with supporting courses in dance and theatre history, technical theatre, and special topics.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Theatre Arts requirements | 48 |
| Electives | 21 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

Students must complete Phase I before Phase II.
Phase I, Required (freshman and sophomore years)
THAR 202 Intro to the History of Drama and Dance Origins to 1800 or

THAR 203 Intro to History of Drama and Dance: 1800 to present
THAR 210A Contemporary Dance I

| THAR 210B Contemporary Dance II THAR 240 Choreography I |  |
| :---: | :---: |
|  |  |
| Choose two from the following technical theatre courses: |  |
| * prerequisite or concurrent enrollment in THAR $143 A$. |  |
| THAR 143B* Costumes (2) |  |
| THAR 144A* Scenery (2) |  |
| THAR 144B* Lighting (2) |  |
|  | Total units required in Phase I |
| Phase II, Required (Junior and Senior Years) |  |
| THAR 300 Theatre in Action |  |
| THAR 310A Intermediate Dance Block A |  |
| THAR 310B Intermediate Dance Block B |  |
| THAR 340 Choreography II |  |
| THAR 345 Choreography III |  |
| THAR 371A History of Dance A |  |
| THAR 371B History of Dance B |  |
| THAR 400 Theatre of Today |  |
| THAR 410A Advanced Dance Block A |  |
| THAR 410B Advanced Dance Block B |  |
| Electives - Dance |  |
|  | Total units in Phase I |
|  | Total units in Phase II |
|  | Total units in the dance concentration |

2

## Sample Four-Year Program for Bachelor of Arts in Theatre Arts - Dance Concentration

FRESHMAN YEAR:: 30 Units

| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| THAR 110 (1) | THAR 110 (1) |
| THAR 143A (2) | THAR 144A (2) or |
| THAR 143B (2) | THAR 144B (2) |
| GE (10) | THAR 202 (4) (GE-C1) |
|  | GE (9) |
|  |  |
|  |  |


| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| THAR 210A (2) | THAR 210B (2) |
| THAR 240 (2) | THAR 340 (2) |
| GE (8) | GE (7) |
| Electives (3) |  |
|  |  |
|  |  |
|  | Electives (4) |

Fall Semester (16 Units)
THAR 310A (2 or 5)
THAR 345 (2)
THAR 371A (3)
Spring Semester (15 Units) THAR 310B (2 or 5)
THAR 300 (3) GE UD (C1)
THAR 400 (1)
GE UD (3)
GE (UD) (3)
Electives (3)

Fall Semester (15 Units)
THAR 410A (2 or 5)
GE (5)
Electives (5)

Spring Semester (14 Units)
THAR 410B (2 or 5)
THAR 371B (3)
Electives (3)
GE (3)
TOTAL UNITS:: 120

## Bachelor of Arts in Theatre Arts with Concentration in Technical Theatre

The technical theatre concentration offers intensive work in design, theatre technology, and stage management, with supporting courses in acting and movement, theatre and dance history, and special topics.

| Degree Requirements | Units |
| :--- | ---: |
| General Education | 51 |
| Theatre Arts requirements | 48 |
| Electives | 21 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

Students must complete Phase I before Phase II.
Phase I, Required (freshman and sophomore years)
THAR 202 Intro to the History of Drama and Dance: Origins to 18004
or
THAR 203 Intro to the History of Drama and Dance: 1800 to Present
(strongly recommended)

* Prerequisite or concurrent enrollment in THAR $143 A$.

THAR 143B* Costumes
THAR 144A* Scenery ..... 2
THAR 144B* Lighting ..... 2
THAR 230 Stage Management ..... 3
ART 101 Art Fundamentals (strongly recommended) ..... 3
ART 102 Art Fundamentals (strongly recommended) ..... 3
Choose 3 units from the following dance/drama courses: ..... 3
THAR 120A or B Acting: Fundamentals ..... 2
THAR 110 Dance Fundamentals ..... 1
THAR 210A Contemporary Dance I ..... 2
THAR 116 Comedy and Improvisation ..... 1
Total units required in Phase I ..... 15
Phase II, Required (junior and senior years)
THAR 300 Theatre in Action ..... 3
THAR 344A Design for the Stage ..... 3
THAR 344B Design for the Stage ..... 3
THAR 321A Intermediate Technical Block ..... 2
THAR 321B Intermediate Technical Block ..... 2
THAR 350 Directing Workshop ..... 2
THAR 370A Early Plays: Evolution and Innovation ..... 3
THAR 370B Modern Plays: Evolution and Innovation ..... 3
THAR 400 Theatre of Today ..... 1
THAR 421A Advanced Technical Block ..... 2

THAR 421B Advanced Technical Block
THAR 444 History of Ornament
Electives - Theatre
Total units required in Phase II
Total units in Phase I
Total units in Phase II
Total units in the technical theatre concentration

## Sample Four-Year Program for Bachelor of Arts in

 Theatre Arts - Technical Theatre ConcentrationFRESHMAN YEAR:: 30 Units

| Fall Semester (16 Units) | Spring Semester (14 Units) |
| :---: | :---: |
| THAR 143A (2) | THAR 144A (2) |
| THAR 143B (2) | THAR 144B (2) |
| GE (12) | GE (10) |
| SOPHOMORE YEAR:: 30 Units |  |
| Fall Semester (15 Units) | Spring Semester (15 Units) |
| THAR 202 GE (C1) (4) | THAR 120 or 210A (2) |
| GE (9) | THAR 230 (2) |
| THAR 110 or 116 (1) | GE (9) |
| Electives (2) | Electives (2) |
| JUNIOR YEAR:: 30 Units |  |
| Fall Semester (15 Units) | Spring Semester (15 Units) |
| THAR 321A (2) | THAR 321B (2) |
| THAR 344A (3) | THAR 344B (3) |
| THAR 350 (2) | THAR 300 (3) |
| THAR 370A (3) | THAR 400 (1) |
| GE UD (3) | GE UD (3) |
| Electives (2) | Electives (3) |
| SENIOR YEAR:: 30 Units |  |


| Fall Semester (15 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| THAR 421A (2) | THAR 421B (2) |
| THAR 444 (2) | THAR 370B (3) |
| GE (3) | Theatre Electives (3) |
| Theatre Electives (2) | Electives (7) |
| Electives (6) |  |

TOTAL UNITS:: 120

## Bachelor of Arts in Theatre Arts (General Theatre Degree)

The general theatre degree takes a liberal arts approach to studies in theatre and provides students with a broad-based theoretical background in the history, theory, and practice of theatre. It is for students aiming for careers in education, directing, research, script writing, arts management, film production, and other careers that may not have performance or theatre technology at their centers.

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Theatre arts requirements | 48 |
| Electives | 21 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## Phase I, Required (freshman and sophomore years)

Students must complete Phase I before Phase II.
THAR 202 Intro to the History of Drama and Dance: Origins to 1800
THAR 203 Intro to the History of Drama and Dance: 1800 to the Present 4
THAR 120A or B Acting: Fundamentals 2
THAR 143A Stagecraft 2
Any one of the following three technical theatre classes: 2

* Prerequisite or concurrent enrollment in THAR 143A.

THAR 143B* Costumes 2
THAR 144A* Lighting 2
THAR 144B* Scenery 2
THAR 230 Stage Management 3
THAR 220A Acting: Text and Scene Study (may substitute 2 units of dance) 2
Total units required in Phase I 17
Phase II, Required (junior and senior years)
THAR 300 Theatre in Action
Any one of the following three workshop classes: 3
THAR 301 Dance Ensemble
or THAR 302 Drama Ensemble Workshop
or THAR 303 Technical Theatre Workshop 3
ENGL 339 Introduction to Shakespeare 3
THAR 350 Directing Workshop 2
THAR 370A Early Plays: Evolution and Innovation 3
THAR 371A History of Dance A 3
One of the following two classes: 3
THAR 370B Modern Plays: Evolution and Innovation or
THAR 371B History of Dance B
One of the following two classes: 3
THAR 374 World Theatre
or THAR 373 Dances of the World 3
THAR 375 Contemporary Plays and Playwrights 3
THAR 400 Theatre of Today 1

One of the following two teaching classes:
THAR 460 Drama for Children
or THAR 470 Dance for Children 2
Theatre Arts electives
Total units in Phase I
Total units in Phase II
Total units in the general drama concentration 48

Student may substitute 3 units from the following courses with consent of Theatre Arts advisor.

## In English

ENGL 439 Studies in Shakespeare
ENGL 329 Screen/Script Writing (Film-TV-Stage) 3
ENGL 373 Introduction to Drama 3
ENGL 474 Studies in Drama 3
ENGL 377 Film and Literature 3

## In Chicano and Latino Studies

Chicano/Latino Theatre

## In Modern Languages and Literatures

One of the above may be substituted for an upper-division dramatic literature course offered in the Modern Languages and Literatures Department (as available, and if student's language skills allow).

## Sample Four-Year Program for Bachelor of Arts in Theatre Arts (General Theatre Degree)

FRESHMAN YEAR:: 31 Units

| Fall Semester (14 Units) | Spring Semester (17 Units) |
| :---: | :---: |
| THAR 101 (3) GE (C1) | THAR 200 (3) GE (C4) |
| THAR 143A (2) | THAR 144B (2) |
| THAR 120 A or B (2) | THAR 302 (3) |
| GE (7) | GE (9) |
| SOPHOMORE YEAR :: 31 Units |  |
| Fall Semester (15 Units) | Spring Semester (16 Units) |
| THAR 202 (3) GE (C1) | THAR 203 (4) GE (C1) |
| THAR 220A (2) | THAR 220B (2) |
| THAR 110 (1) | THAR 325 (2) |
| THAR 230 (3) | THAR 301, 302 or 303 (3) Elective |
| GE (6) | GE (6) |
| JUNIOR YEAR:: 29 Units |  |
| Fall Semester (15 Units) | Spring Semester (14 Units) |
| THAR 350 (2) | THAR 370B (3) |
| THAR 370A (3) | THAR 375 (3) |
| ENGL 339 (3) | THAR 400 (1) |
| GE UD (3) | GE UD (3) |
| Electives (4) | THAR 301, 302 or 303 (3) Elective |

## SENIOR YEAR:: 29 Units

| Fall Semester (15 Units) | Spring Semester (14 Units) |
| :--- | ---: |
| THAR 371 A (3) | THAR 300 (3) GE UD (C1) |
| ENG 373 (3) | THAR 374 (3) |
| GE (3) | THAR 460 or 470 (2) |
| Theatre Electives (3) | Theatre Electives (3) |
| Electives (3) |  |
|  |  |
|  | THAR 301, 302 or 303 (3) Elective |
|  |  |

## Minor in Theatre Arts

The minor in theatre arts consists of 24 units of theatre arts courses. Students may choose a minor concentration in acting, dance, technical theatre, or drama. Six of the elective units must be upper-division. Students contemplating a minor in theatre arts should consult the Theatre Arts Department's full-time faculty at the earliest possible date for approval and advising.

## Minor Core Requirements

THAR 203 Intro to the History of Drama and Dance: 1800 to present 4
THAR 300 Theatre in Action 3
THAR 301 Dance Ensemble or
THAR 302 Drama Ensemble Workshop or THAR 303 Technical Theatre Workshop

Total units in the minor core

## Minor Electives

Electives must include at least 6 upper-division units and should be chosen in consultation with an advisor. (For dance emphasis, students may choose THAR 103 Intro to History of Drama and Dance, or THAR 371A or 371B History of Dance. Choreography I is a core requirement for a dance emphasis.)

## Total units in the minor electives

## WOMEN'S AND GENDER STUDIES

DEPARTMENT OFFICE
Rachel Carson Hall 18
(707) 664-2840
www.sonoma.edu/womenstudies
DEPARTMENT CHAIR
Charlene Tung
ADMINISTRATIVE COORDINATOR
Jo-Ann Smith
FACULTY
Lena McQuade
Don Romesburg

## Programs Offered

Major in Women's and Gender Studies
Minor in Women's and Gender Studies
Career Minor in Women's Health
Minor in Queer Studies

Women's and gender studies (WGS) is an interdisciplinary major that examines the experiences and opportunities of women and men in relation to race, ethnicity, class, and sexuality. WGS places gender in specific cultural and historical contexts in relation to families, communities, and nations. In addition, feminist scholarship in recent years has inspired a vast array of work on those who identify as gay, lesbian, bisexual, transgender, or queer. Uniting inquiry in women's and gender studies is the effort to understand and explain the inequalities between and among men and women and to envision change.

The Women's and Gender Studies Department allows students to engage in both classroom and community work. In addition to building skills through coursework in social science research methods, feminist theory, and original research projects, students are also required to complete at least 4 units of internship in a community organization. These combined experiences provide women's and gender studies students with critical analytical skills and an opportunity to apply the theories and methods discussed in the classroom to practice in everyday life and the job market.

## Major in Women's and Gender Studies

The major is an interdisciplinary curriculum that explores the nature and function of gender as it intersects with race, class, ethnicity, sexuality, and nation within our everyday institutions and lives. This includes contemporary, historical, and cross-cultural examinations of the sexual division of labor, the social construction of the family, the law, media, and other public and private institutions. Women's and gender studies also focuses on how ideological conceptions of masculinity and femininity shape human development and con-
structions of knowledge itself
The women's and gender studies major is constructed to encourage students to double-major or to minor in another discipline. The major has three components:

1. An interdisciplinary core of 21 units that exposes students to feminist theory and research about women and gender;
2. A disciplinary concentration of 15 units that exposes students to how gender analyses develop within, and can influence, a specific discipline; and
3. Skills application in social services for a total of 8 units, including 4 units of internship or community involvement.

## Careers in Women's and Gender Studies

Women's and gender studies graduates hold tools - knowledge of gender issues, critical thinking skills, and breadth of perspective that public service organizations, private industry, government, and graduate schools want and need. The women's and gender studies major or minor provides excellent preparation for students going into teaching, counseling, social work, public relations, public policy and management, advocacy work, and other fields. WGS graduates also pursue advanced degrees in education, law, public policy, history, psychology, sociology, and other areas.

## Bachelor of Arts in Women's and Gender Studies

| Degree Requirements | Units |
| :--- | ---: |
| General education | 51 |
| Major core requirements | 44 |
| Electives | 25 |
| Total units needed for graduation | $\mathbf{1 2 0}$ |

## I. Core Requirements

WGS 280 Women's Bodies: Health and Image or
WGS 285 Men and Masculinity or
WGS 350 Gender, Sexuality, and Family 3-4
WGS 375 Gender, Race, and Class 3
WGS 425 Feminist Research Methods 4
WGS 475 Contemporary Feminist Theory 4
WGS 485 Senior Seminar 4
Elective
The elective should be from within WGS, although appropriate courses from another department may be considered (in consultation with a WGS advisor) The elective course is separate from those taken to fulfill II and III below.

Total core units

## II. Disciplinary Concentration

Students must specialize in one discipline (defined as any recognized major or minor in the University) by completing 15 units of coursework in that area as follows:

- A course on women, men, or gender (3-4 units). Examples: Sociology of Gender, Women Writers, Gender and Archaeology, or Women in U.S. History;
- An introductory (3-4 units) course in the discipline (may be lower- or upper-division); and
- Additional upper-division courses (8-10 units) in the discipline, chosen in consultation with a women's and gender studies advisor.


## Total disciplinary concentration units

## III. Skills Application

WGS 390 Gender and Work
WGS 395 Community Involvement Project (CIP) or WGS 499 Internships
Internships/Community Involvement Projects must be completed in a community organization chosen in consultation with a WGS advisor. Sites usually address social inequalities related to issues raised in WGS courses. Examples: United Against Sexual Assault, Circle of Sisters after-school program, The Living Room (drop-in center for at-risk women and children), and The Family Connection (work with families transitioning out of homelessness).

## Total skills application units

Total units necessary for major

## Minor in Women's and Gender Studies

The minor in women's and gender studies is an interdisciplinary curriculum that applies feminist perspectives to the study of women and men. It draws upon both courses offered through the women's and gender studies department (e.g., WGS 350) and courses on gender offered through various departments on a regular and occasional Special Topics basis. The minor is composed of 10 units of core courses and at least 6 units of supporting courses, for a minimum total of 16 units. At least 13 of these units must be upper-division.

## Minor Core Requirements (10 units)

The core courses provide an organized framework for understanding women's and men's lives and individual experiences within cultural groups, and from a societal perspective. It is recommended that students enroll in the core courses in the following order:

WGS 280 Women's Bodies: Health and Image or
WGS 285 Men and Masculinity or
WGS 350 Gender, Sexuality, and Family
WGS 375 Gender, Race, and Class
WGS 475 Contemporary Feminist Theory

## Minor Supporting Courses (6 units)

Minors in women's and gender studies must complete at least two courses from at least two of the following categories for a total of 6 units.
Note: Courses on women and gender offered in other departments can fulfill these requirements.
I. Women and Gender in American Society
II. Women and Gender in the Humanities
III. Biological and Psychological Perspective on Women or Gender
IV. Women or Gender in International and Cross-Cultural Perspective
V. Special Topics on Women or Gender

For more information, please come to the Women's and Gender Studies Department office (664-2840), Rachel Carson 18.
Total units in the WGS minor

## Career Minor in Women's Health

Women's health is a large and growing area of research and policy interest in the United States. The career minor in women's health provides students with interdisciplinary coursework, training, and work experience in the social, political, and economic aspects of women's health and illness. Career needs of both health care providers and liberal arts and sciences majors are addressed. It is a highly suitable program for those interested in pursuing careers as nurses, physicians, counselors, therapists, public health workers, research analysts, policy makers, and in a variety of other fields.

## Minor Core Requirements (6 units)

WGS 280 Women's Bodies: Health and Image
NURS 480 Health, Sexuality, and Society or WGS 350 Gender, Sexuality, and Family

## Practical Application (3-4 units)

WGS 499 Internship in Women's Health Setting (4) or NURS 425 Senior Clinical Study (3)3-4

## Electives (10-11 units)

All electives must be health-related (including mental health). When the health course does not explicitly deal with women's health, students are expected to do their term papers and projects on women's health issues and to be prepared to share these course materials with the program coordinator.

## Suggested Electives

GEOG 396 Medical Geography 3
GERN 300 Basic Gerontology 3
GERN 319/SOCl 319 Aging and Society 3
NURS 340 Health and IIIness in the Expanding Family 4
PSY 404/WGS 330 Psychology of Women 4
PSY 408 Transitions in Adult Development 4
PSY 454 Biofeedback and Somatic Psychology 4
SOCI 452 Health Care and IIIness
(cross-listed as GERN 452) 4
WGS 301 Women's Health Lecture Series 1-2
WGS 440/SOCl 440 Sociology of Reproduction 4
WGS/NURS 495 Special Study Research
on Women's Health1-4

Total units required in women's health minor 20
For more information come to the Women's and Gender Studies Department Office in Rachel Carson 18.

## Minor in Queer Studies

The minor in queer studies gives students competency within a dynamic field of interdisciplinary scholarship related to lesbian, gay, bisexual, and transgender lives as well as gender and sexual structures and identities. It provides coursework in queer theory, politics, history, sociology, psychology, cultural criticism, and methodology. The queer studies minor will augment students' pursuit of graduate and professional degrees. In a public- and private-sector job market with increasing demand for nuance in issues of diversity and critical flexibility, the minor will position graduates on the leading edge in many fields, including social work, counseling, education, healthcare, social service, media, policy, nonprofit advocacy, and social marketing.

## Minor Core Requirements (12 units)

WGS 255 Introduction to Queer Studies (Fall only) (GE D1) 4
WGS 301 Queer Studies Lecture Series (Spring only) 1
WGS 350 Gender, Sexuality, and Family (GE E) 3
WGS 455 Queer Theory/Queer Lives (Spring only)

## Electives (6-8 units)

Students choose two interdisciplinary sexuality-themed courses in consultation with the queer studies minor advisor.

## Suggested Electives

ANTH 302 Biological Basis of Sex Differences 4
ANTH/HD 318 Human Development: Sex \& the Life Cycle 3
HIST 449 Gender and Sexuality in Latin America 4
NURS 480 Health, Sexuality, and Society (GE E) 3
PHIL 378 Feminist Philosophy 3
PSY 290 Sexual Identities Across the Lifespan 4
PSY 490 Psychology of Gender 4
SOCI 360 Sociology of Sexualities 4
WGS 285 Men and Masculinity (GE E) 3
Queer/LGBT/sexuality-related Special Studies courses offered in Sciences, Arts/ Humanities, and Social Sciences.

Total units required in queer studies minor
For more information, please visit the Women's and Gender Studies Department Office in Rachel Carson Hall 18.

## Sample Four-Year Plan for Women's and Gender Studies Major (Freshman Entry to Program)

Plan to complete the major ( 44 units) and graduate ( 120 units) in eight semesters starting in the freshman year. This major is organized to facilitate a double major or minor in another discipline. Hence 20 units of the major can be counted toward the double major (e.g., all the disciplinary concentration and 4 additional units can be counted for both majors).

FRESHMAN YEAR:: 30 Units

Fall Semester (15 Units)
GE (3), GE (3)
GE (3), GE (3), GE (3)
Spring Semester (15 Units)

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\mathrm{GE}(3), \mathrm{GE}(3) \\
\mathrm{GE}(3), \mathrm{GE}(3), \mathrm{GE}(3)
\end{array}
$$

Fall Semester (16 Units)
Spring Semester (14 Units)
WGS 280 (GE) (3) or WGS 285 (3)
WGS Elective (3)
Lower-division course in disciplinary concentration (4) Disciplinary course (4)
GE (3) GE (3)

Electives (6)
Electives (4)
JUNIOR YEAR:: 30 Units
Fall Semester (17 Units)
Spring Semester (13 Units)

WGS 375 (3)
Gender course in disciplinary concentration (4)
WGS 350 (3)
Disciplinary course needed to complete a minor (4)
Upper-Division GE (3)

SENIOR YEAR:: 30 Units

## Fall Semester (17 Units)

Spring Semester (13 Units)
WGS 425 (4)
WGS 485 (4)
WGS 475 (4)
WGS 499 (2)
Electives (9)
Electives (7)

## TOTAL UNITS:: 120

## Sample Four-Semester Plan for Women's and Gender Studies Major (Transfer Students and Upperclassman Entry to Program)

Plan for transfer students and those who declare a major in women's and gender studies at the start of their junior year. (This plan assumes the student has completed 62 units toward graduation and all lower-division GE.) This plan is organized to facilitate a minor in another discipline.

JUNIOR YEAR:: 29 Units

| Fall Semester (14 Units) | Spring Semester (15 Units) |
| :--- | ---: |
| WGS 350 (3) | WGS 375 (3) |
| WGS Elective (3) | WGS 390 (4) and WGS 499 (2) |
| Gender course in disciplinary concentration (4) | Disciplinary course (4) |
| Course in disciplinary concentration (4) | Upper-Division GE (3) |
|  | SENIOR YEAR:: |
|  | 30-32 Units |

## COURSES

## COURSE DESCRIPTIONS

## American Multicultural Studies (AMCS)

## AMCS 200 Written and Oral Analysis (3)

Students practice the techniques of critical reading and thinking, of expository writing and of oral expression through an in-depth examination of race, ethnicity, and multiculturalism and its impact on American cultural, political, and social institutions. They examine the principles of thinking, speaking, and writing with a view to the multiple purposes for which these activities are crucial. Satisfies GE, Category A1. Prerequisites: Completion of GE Categories A2 and A3

## AMCS 210 Ethinic Groups in America (4)

Survey and analysis of the diverse experiences of major ethnic groups in their present socioeconomic and political position in American society as depicted in literary, historical, anthropological, and sociological studies. Satisfies ethnic studies in GE, category D1. This course satisfies one of the core requirements of the AMCS major.

## AMCS 255 Ethnicity in the Humanities (3)

A general survey of the major artistic and expressive developments in the U.S. with reference to native ethnic populations. An assessment of how race and ethnicity are represented in the arts, humanities, media, and popular culture. This course satisfies one of the core requirements of the AMCS major. May be taught with a focus on a single racial or ethnic group. Satisfies GE category, C4.
amCS 330 Multicultural History of the United States (4)
A survey of the origins and histories of a wide range of racial and ethnic groups in the United States. This course will explore the social, economic, and political evolutions of various groups in an effort to understand their positions in the United States today. It will also focus on the development of various racial categories and identities throughout the American past.

## AMCS 339 Ethnic Groups and American Social Policy (3)

The impact of American social policies on ethnic minorities. Topics include public policy issues related to employment, immigration, education, mental health, and minority children and families. The impact of major court decisions affecting public policy and ethnic minorities will also be examined. Course might be taught from single ethnic group's perspectives. Satisfies upper-division ethnic studies in GE, category D1.

## AMCS 345 Folklore and Ethnicity (4)

Methods and materials dealing with the traditional expressive culture of American ethnic groups; oral literature, festivals, children's games, customs, and beliefs. Includes training in collecting oral traditions and in the analysis of folklore texts and contexts. Topics subject to change.

AMCS 350 Ethics, Values and Multiculturalism (3) An examination of how issues of race, ethnicity affect the values and ethics of American society and its citizens. Students will be expected to assess how their views about race in the U.S. have been influenced by their upbringing and how their values and ethics reflect those views. This course satisfies one of the core requirements of the AMCS major. May be taught as a general survey or with a focus on a single racial or ethnic group. Meets ethnic studies and upper-division GE requirements in Area C3.

AMCS 355 Language and Ethnicity (3-4)
A study of language as an ethnic marker; language and ethnic identity; language and national revival; bilingualism and bi-dialectism; standard and nonstandard speech; foreign accents; linguistic assimilation vs. language retention. Satisfies upper-division ethnic studies in GE, category C4.

## AMCS 360 Ethnic Literature (3)

A survey of the representative novels, short stories, essays, biographies, and poetry of various ethnic authors in the United States. Satisfies upper-division ethnic studies in GE, category C2.

## AMCS 370 Topics in Ethnic/Multicultural Studies (4)

A course enabling students to conduct in-depth study of a specific area of ethnic culture. The course may cover subject topics as Asian American Cinema, Multicultural Autobiography, or African American music. Topics subject to change. May be repeated for credit with instructor's permission.

## AMCS 374 The Multiracial Experience (4)

A general survey of the historical and contemporary experience of people claiming more than one racial or ethnic background. Emphasis will be given to inter-racial relations, the impact of political and social factors, and the cultural expressions of the multiracial experience.

## AMCS 376 African American Experience (4)

A historical examination of the African American experience from the pre-colonial period to the present. This course will pay special attention to cultural and sociological aspects of African American history with a particular focus on the impact of gender and class. This class asks students to use historical analysis to understand race relations in the 21st century.

## AMCS 377 Asian American Experience (4)

A course designed to explore areas of contemporary, historical or artistic concern as these affect the Asian American experience. Advanced studies and/or research projects will be discussed and analyzed.

## AMCS 381 Research Assistantship (2-4)

Student assistance to help faculty with research on the experiences of people of color in America. Topic matter and research agenda will be discussed with faculty. By individual arrangement with faculty sponsor.

## AMCS 385 Facilitation Training (2-4)

Facilitation pedagogy training in active learning situations within established courses. Prerequisite: junior/senior status with satisfactory completion of either AMCS 210 or 255. By individual arrangement with instructor.

## AMCS 392 Ethnic Images in Film and Media (3)

An examination of representative and significant works, tracing the evolution of ethnic images in cinema and media from their earliest to latest manifestations. Topics subject to change. Satisfies upper-division ethnic studies in GE, category C1.

## AMCS 395 Community Involvement Program (1-4)

Course provides students with practical experience in various community organizations and health and social service agencies and educational settings. Includes schools, recreation programs, tutoring programs, day care centers, cultural arts organizations, civic promotion organizations, etc.

## AMCS 399 Student Initiated Course (1-4)

Student initiated and instructed courses on topics that enrich or extend current departmental offerings. Students may take up to 4 units of AMCS 399 courses for major credit.

## AMCS 405 Black Family Life in America (4)

Using sources from a wide range of disciplines, including literature, film, sociology, and history, students will review and assess major cultural themes surrounding black family life. Students will also be expected to explore how these narratives reflect larger issues of race and ethnicity in the United States.

## AMCS 420 Gender and Ethnicity (4)

A historical overview of racism and sexism as they affect women of color, focusing on issues in which racism and sexism intersect, e.g. affirmative action, abortion, sterilization, violence against women, and other issues.

## AMCS 430 Topics in Multicultural History (4)

Subjects will vary by semester, but this course will concentrate on topics and periods in American Multicultural History. Students will be required to do a research project in this course. Students will also be asked to review primary documents in American Multicultural History. May be repeated for credit with instructor's permission.

## AMCS 431 Ethnic History of California (4)

A historical examination of the major ethnic and racial groups in California and their influence on the Californian present and future. This course will look at environmental, social, demographic, geographical, sexual, political, and economic issues specific to California and its minority populations.

## AMCS 432 Health and Culture (4)

An analysis of cultural and ethnic influences on health and health behavior, with an emphasis on developing strategies for bridging cultural disjunctions between health professionals and their clients, and for improving health care delivery to an ethnically diverse population.

## AMCS 439 Civil Rights and Human Rights Law (4)

A study of major court decisions, legal battles, and/or social movements that have influenced American's understanding of the civil rights and human rights that govern our society. This course will engage student understanding of the relationship between the executive, legislative, and judicial branches of government. Course may use a multicultural perspective or focus on a single racial or ethnic group.

## AMCS 445 Multi-Culturalism and Education (4)

An analysis of the philosophical and definition issues related to pluralistic education; developing resources germane to this philosophy and the guidelines constituting the foundation for multiethnic educational programs and ethnic studies.

## AMCS 460 Multi-Ethnic Children’s Literature (4)

A study of multiethnic children's literature. Stories from folklore and literature are used to exemplify cultural images and traditions.

## AMCS 470 Advanced Studies in Ethnic Culture (4)

A course enabling students to conduct in-depth study of a specific area of Ethnic culture. The course may cover subject topics as Asian American Cinema, Multicultural Autobiography, or African American music. Topics subject to change. May be repeated for credit with instructor's permission.

AMCS 475 Globalization and Race in the United States (4) The United States, as one of the destination countries of diasporic peoples in this era of globalization, has often responded to the crises of globalization through racialization. This course emphasizes the importance of understanding this crisis and explores the possibilities of creating anti-racist strategies and new social movements.

AMCS 476 Selected Topics in African American Studies (4) Subjects will vary by semester, but this course will concentrate on topics and periods in African American History. Students will be required to do a research project in this course. Students will also be asked to review primary documents in African American history. Topics subject to change. May be repeated for credit with instructor's permission.

AMCS 477 Selected Topics in Asian American Studies (4)
A course designed to explore areas of contemporary, historical, or artistic concern as they affect the Asian American experience. Advanced studies and/or research projects will be discussed and analyzed. Subject matter will vary. Topics subject to change. May be repeated for credit with instructor's permission.

AMCS 480 Research and Methodology (4)
Survey of research and methodological tools used in the study of American ethnic groups. Special attention is given to the problems of objectivity and bias and the political and moral implications of quantitative and field research. This course satisfies one of the core requirements of the AMCS major.

AMCS 481 Special Topics (1-4)
Please refer to current Schedule of Classes.

## AMCS 485 Senior Seminar (4)

Directed studies in a seminar setting on a particular topic or theme. Combines secondary reading and original research leading to the completion of a research project. Please see Schedule of Classes for the topic selected by the instructor.

## AMCS 487 Senior Thesis (4)

Students in the major, with faculty supervision, may elect to write a thesis in order to quality for graduation with distinction in American Multicultural Studies. Prerequisite: AMCS 480.

AMCS 495 Special Studies (1-4)
Independent study. Prerequisite: AMCS 210 or 255; a core upper-division course; approval of supervising faculty member and approval of department chair.

## AMCS 499 Service Learning Internship (1-4)

Course provides students with practical experience in various ethnic community organizations and in health/social service/educational settings. Includes recreation programs, tutoring programs, day care centers, cultural arts organizations, civic promotion organizations, etc.

## Anthropology (ANTH)

## ANTH 200 Introduction to Linguistic Anthropology (3)

This course is an introduction to the anthropological study of language. Topics covered in this course include a survey of core topics in linguistics (e.g., phonetics, morphology, syntax and semantics) and the relationship of language to social, cultural, and psychological factors. This course may include discussion of nonverbal communication, evolution of language abilities, and historical linguistics. This course highlights linkages among linguistic anthropology and the other subfields of anthropology.

## ANTH 201 Introduction to Biological Anthropology (3)

This course is an introduction to the evolutionary biology of human and nonhuman primates. The course focuses on evolutionary perspectives on form and function, behavior, population and social structure to reconstruct human evolution and explain human adaptations. Satisfies GE, category B2 (Biological Sciences).

## ANTH 202 Introduction to Archaeology (3)

An introduction to archaeology as a method of inquiry, the course seeks to answer the question "How do archaeologists know what they know?" Topics include history of archaeology, field and laboratory methods, relationship between method and theory, and "scientific" and humanistic approaches to the interpretation of data.

## ANTH 203 Introduction to Cultural Anthropology (3)

 Examination of the anthropological approach to the study of human behavior. Exploration of human dependence on learned, socially transmitted behavior through consideration of ways of life in a broad range of societies. Satisfies GE, category D1 (Individual and Society).
## ANTH 300 Nature, Culture, and Theory: The Growth of Anthropology (4)

The nature of science, disciplinary inquiry, and the changing intellectual, institutional and material context of the development of anthropology in the modern world. Identification of significant issues, schools of thought and historic persons. Training in scholarly procedure, library research, bibliography, and professional format and style. Prerequisites: At least one of the following: ANTH 201, 202, 203, or consent of instructor. (ANTH 342 recommended.)

## ANTH 301 Human Fossils and Evolution (4)

This course reviews the fossil evidence for human evolution in Africa, Asia, and Europe during the Pliocene-Pleistocene epochs. The fossil evidence is treated in temporal, geological, and geographic contexts. The primary focus is on the evolutionary implications of the fossil evidence for understanding the evolution of human morphology and behavior. Implications for the emergence of modern human races are also considered. Prerequisites: completion of general education area B2 and upper-division standing, or consent of instructor.

## ANTH 302 Biological Basis of Sex Differences (4)

An examination of the current theoretical frameworks for explaining the evolution of sex differences in humans. Issues addressed will include: evolution of behavior, sex differences in morphology and behavior, ecological basis of sex differences in hominin evolution. Prerequisite: completion of general education area B2 and upper-division standing, or consent of instructor.

## ANTH 305 Topics in Biological Anthropology (4)

In depth examination of a specific topic within biological anthropology. Topics vary with each offering and might include: history of biological anthropology, human behavioral ecology, human osteology, human variation, bioarcheology, evolution of human and/or primate social behavior. May be repeated for credit with permission of chair if topic differs. Prerequisites: completion of general education area B2 and upper-division standing, or consent of instructor.

ANTH 318 Human Development: Sex and the Life Cycle (3) An examination of developmental and evolutionary aspects of human reproductive biology and behavior from fetal through adult stages. Sexual selection and life history perspectives on fetal sex differentiation, gender identity, sex role development, puberty and secondary sexual characteristics, and mate choice. Satisfies GE, category E (The Integrated Person). Prerequisite: completion of GE area B2 and open to juniors, seniors and graduate students only. Cross-listed as HD 318.

## ANTH 322 Historical Archaeology (4)

Introduction to the history, methods and issues of the field of historical archaeology. Extensive readings provide examples of archaeology from post-1300s contexts in North America, Africa, Australia and Latin America. Topics covered range from archaeological approaches to ethnic, gender and class diversity to the study of large-scale processes of colonialism, industrialism and global expansion. Broader issues discussed include the relationships between history and anthropology, the cross-cultural impact of European expansion, and the development of contemporary industrial societies. Prerequisite: upper-division standing or consent of instructor.

## ANTH 325 World Prehistory (4)

A global survey of the human past from the earliest evidence of tool use to the emergence of stratified urban societies. Emphasis is on the complex diversity of past lifeways, including the reconstruction of human social and material life, the development of different social systems, and connections between societies and their physical environment. Limited discussion of relevant archaeological methods of reconstruction and analysis.Prerequisite: upper-division standing or consent of instructor.

## ANTH 326 Topics in Archaeology (4)

Topics vary with each offering; may be repeated for credit with permission of chair. Possible topics might include: environmental adaptation in foraging groups, Holocene transition studies, early food production, emergent cultural complexity, technological innovation and change, regional studies, materials analysis, and geoarchaeology. Prerequisite: upper-division standing or consent of instructor.

## ANTH 327 Archaeology of North America (4)

This course is a broad survey of the regions, periods, and issues relevant to the study of the North American archaeological record. Topics range from the human settlement of the hemisphere, and the many diverse cultural histories of the continent, through the development of key cultural components such as trade and exchange networks, food production systems, and urban societies, to the increasing impact of cultural resource legislation and the views and interests of modern indigenous populations on contemporary archaeological practice. Prerequisites: upper-division standing or consent of instructor.

## ANTH 340 Living in our Globalized World (3)

This course explores differences in human cultures primarily as highlighted through cultural interactions. Focus is on learning to perceive how cultural differences influence the dynamics of human interactions and relationships at the level of the individual, the community, the nation and the world. This will contribute to an understanding of the processes and patterns shaping our lives allowing students to develop the skills and perspectives necessary to live in the global community. Not applicable to the Cultural Analysis and Theory core requirement for the anthropology major. Satisfies upper-division GE, category E (The Integrated Person). Prerequisite: upper-division standing or consent of instructor.

## ANTH 341 Emergence of Civilizations (3)

A presentation of theory and data related to the development and characteristic features of civilization. Such crucial issues as the domestication of plants and animals, the appearance of stratified societies, the emergence of urban life, the emergence of literacy and its implications for thought, and the emergence of the state will be addressed from a comparative perspective. The course takes a global approach to these topics, covering materials from Southwest Asia, Africa, the Mediterranean, and North, Central and South America. Not applicable to the Archaeology subfield requirement for the anthropology major. Satisfies upper-division GE, category D2 (World History and Civilization). Prerequisite: upper-division standing or consent of instructor.

## ANTH 342 Organization of Societies (4)

Intensive in-class discussions of accounts from several societies, past and present. Discussions will address key issues in cultural analysis (e.g., status, kinship, gender and identify, symbolism) by means of cross-cultural comparison and a holistic examination of culture. Students are encouraged to think critically and interpretively about the organization and cultural practices of the societies under review. Prerequisites: ANTH 203 and upper-division standing or consent of instructor.

## ANTH 345 Nature and Society: Topics in Anthropology and the

 Environment (4)Using the methods of anthropology this course will focus on the study of environmental issues. The course will cover the history of anthropological approaches to the environment. Selected topics such as human ecology, historical ecology, natural resource management, environmental justice, and environmentalism will be announced in the semester schedule. May be repeated for credit.

## ANTH 352 Global Issues (4)

This course will explore anthropological perspectives on global issues. The course will include a brief introduction to the theoretical frameworks developed in the discipline for studying issues that impact humanity on a global scale. Possible topics may include: globalization, global capitalism, global climate change, international development, population movements such as international migration and diasporas, global impacts of diseases such as HIV/AIDS and SARS. Topics will vary with each offering; may be repeated for credit with consent of instructor. Prerequisites: upper-division standing or consent of instructor.

## ANTH 354 Quest for the Other:Tourism and Culture (4)

Examines the nature of tourism as a social and economic force. Different forms of tourism (eco, ethnic, heritage, mass, elite, etc.) will be assessed both in terms of impacts on host cultures and their environments as well as tourists themselves. Case studies illustrate the positive and negative impacts of tourism as an agent of culture change. Prerequisite: upper-division standing or consent of instructor.

## ANTH 358 Topics in Sociocultural Anthropology (4)

In-depth examination of a specific topic within sociocultural anthropology. Topics vary with each offering and might include: medical anthropology, economic anthropology, political anthropology or issues such as homelessness, social capital, or community. May be repeated for credit if topics vary. Prerequisites: ANTH 203 or ANTH 340 or consent of instructor, and upper-division standing.

## ANTH 380 Language, Culture, and Society (4)

A survey of basic issues concerning language as a part of human behavior; the symbolic nature of human communication; language as an interpretive model for culture; the social nature of language; the psychobiological bases of language and its acquisition; human and nonhuman communicative behavior; verbal and nonverbal communication. Prerequisite: upper division standing and ANTH 200 or ANTH 203, or consent of instructor.

## ANTH 382 Language Change (4)

Survey of the distribution of the world's languages and language families, with discussion of language evolution, and areal, genetic, and typological classifications of languages. Study of the languages in contact and the processes of language change, with attention given to the history of writing systems and to writing as a source of evidence for the reconstruction of linguistic change. Prerequisite: ANTH 200 or 203 and upper division standing, or consent of instructor.

## ANTH 383 Language in Sociopolitical Context (4)

Focus on such topics as language attitudes, political power and linguistic equality, language and sociopolitical institutions, and language planning. Practical introduction to the insights offered by discourse analysis to the study of language varieties reflected in particular geographical regions, and by members of particular social classes/groups. Prerequisite: upper-division standing or consent of instructor. Cross-listed with LING 432.

## ANTH 384 Topics in Linguistic Anthropology (3-4)

Topics may include: language acquisition, ideology, policy, revitalization, evolution, creolization and language contact, semantics \& pragmatics, sociolinguistics. Topics vary with each offering; may be repeated for credit. Prerequisite: senior standing or consent of instructor.

## ANTH 386 Sign Languages and Signing Communities (4)

Focus is on sign languages used in Deaf communities around the world; with an emphasis on three themes: (a) language as a system, (b) language in cultural and social context, and (c) language relationships in space and time. No previous knowledge of sign language is required. Prerequisites: ANTH 200 or ENGL 203, and upper division standing, or consent of instructor.

## ANTH 392 Research in California Prehistory (4)

A seminar offering an introduction and review of a specific topic in California prehistory, emphasizing method and theory. Specific topics - such as regional culture history, subsistence and settlement, trade and exchange, prehistoric technology and osteology - will be announced in the semester schedule. May be repeated for credit. Prerequisite: upper-division standing or consent of instructor.

## ANTH 395 Community Involvement Program (1-3)

An experience involving the application of anthropological method and theory to community service work. Requirements: Approval of a project of anthropological relevance, a minimum of 30 hours per unit of credit in the actual working situation, regular consultation with a faculty sponsor, and a paper to be determined by the student and faculty member in charge. Prerequisites: major status, upperdivison standing and consent of instructor.

## ANTH 396 Experimental Courses (1-3)

## ANTH 399 Student Initiated Course (1-3)

Student-initiated and -instructed courses on topics that enrich or extend current departmental offerings. Cr/NC only.

## ANTH 400 Anthropology Teaching Praxis (1-3)

Supervision and assessment of curriculum development, course assessment as applicable to students in instructional or faculty-adjunct roles. May be repeated once for credit. Instructor consent required.

## ANTH 412 Human Osteology (4)

Combined lecture/laboratory course on the anatomy and biology of the human skeleton. Students learn to identify the bones and teeth of the human skeleton; the landmarks used for osteological analyses; and how morphological and metric analyses of bones and teeth can reconstruct personal biographies and population histories. Prerequisites: ANTH 201 (or BIOL 115 for non-majors), or consent of instructor and upper-division standing.

## ANTH 414 Primate Behavior Laboratory (4)

Combined lecture/laboratory course for students interested in studying primate behavior. Course will include an in-depth survey of the primates, emphasizing one or more of the following topics: socioecology, social organization, behavioral ecology, evolution of primate behavior. Students will also learn methods used in studying, describing and analyzing primate behavior. Laboratory consists of direct observations of local fauna and captive primates at Bay Area zoos. Prerequisites: completion of general education area B2 and upper-division standing, or consent of instructor.

## ANTH 415 Forensic Anthropology Methods (4)

Combined lecture/laboratory course for students interested in the principles and techniques used in the application of forensic anthropology. Topics covered in this course include estimating time since death, determining age, sex, stature and ancestry, and identifying the effects of trauma and pathology on bones. Examination of forensic anthropology case studies. Prerequisite: completion of general education area B2 and upper-division standing, or consent of instructor.

## ANTH 420 Archaeology Methods: Lecture (3)

Basic methods of archaeological reconnaissance, excavation and laboratory analysis. Class time is divided between lecture/discussions, survey and excavation on local archaeological sites, and processing and analyzing excavated collections of artifacts. Prerequisite: concurrent enrollment in ANTH 421 or upper-division standing.

## ANTH 421 Archaeology Methods: Laboratory (1)

Prerequisite: concurrent enrollment in ANTH 420.

## anth 424 Mesoamerican Archaeology Field School (4)

A field school designed to introduce undergraduate students to archaeological fieldwork in the Maya lowlands of Belize. The project has a regional focus with a principal objective of studying the changes in settlement patterns and site relationships over time. Specific site focus and particular techniques taught may change from season to season. The curriculum focuses on instruction in archaeological field practice including excavation, data recording, artifact processing and mapping. May be repeated for credit.

## ANTH 444 Material Culture Studies (4)

An interdisciplinary examination of the objects, structures, technologies, and built environments people create and use, and the cultural significance of these materials. Students will compare theoretical and methodological approaches from a range of disciplines, including anthropology, archaeology, folklore and folklife studies, art history and decorative arts, vernacular architecture and cultural landscape studies, museum studies, and the history of technology. They will learn methods in material culture studies from across a number of fields that have developed techniques for identifying, recording and analyzing a wide range of material culture categories. Specific topical emphases and methodological training will vary across semester offerings.

## ANTH 451 Applied Ethnographic Methods (4)

This is an applied research course designed to link theory, field research, data collection and service learning in the local community. This will include research design, data collection and analysis, and final report preparation and presentation. Other topics covered include historic overview of the development of applied anthropology, the uses and roles of anthropology outside academia, survey of professional practice including ethical considerations, state of the job market, techniques for career preparation, and issues of generalization vs. specialization. Prerequisite: ANTH 201 or 203 and upper-division or consent of instructor.

## ANTH 454 Ethnographic Field School (4)

A field school designed to help student develop their ethnographic field work skills, especially rapid appraisal techniques in an applied setting. Students will learn how to design and carry out a research project utilizing such skills as participant observation, interviewing, data analysis. Students will be required to write a report based on their research and experiences. Contact department for more information. May be repeated for credit. Prerequisite: upper-division standing or consent of instructor.

## ANTH 480 Studies of Language Use (4)

Application of methods and procedures used in the investigation of communication in natural contexts. Topics include research ethics, problem formation, research design, basic data gathering techniques and strategies (with an emphasis on linguistic approaches), quantitative and qualitative data analysis and report writing. May be repeated once for credit. Prerequisites: ANTH 203 or equivalent, and upper-division standing, or consent of instructor.

## ANTH 480 Studies of Language Use (4)

Application of methods and procedures used in the investigation of communication in natural contexts. Topics include research ethics, problem formation, research design, basic data gathering techniques and strategies (with an emphasis on linguistic approaches), quantitative and qualitative data analysis and report writing. May be repeated once for credit. Prerequisites: ANTH 203 or equivalent, and upper-division standing, or consent of instructor.

## ANTH 490 Topical Seminar in Anthropology (1-4)

May be repeated for credit if topic differs. Prerequisite: upper-division standing or consent of instructor.

## ANTH 491 Senior Seminar (1)

The focus of the seminar may vary, but the class will comprehensively address the four goals of the anthropology major--comparative perspective, four-field coverage, integration of the four field approach and ethical awareness--through discussion of areas of special interest to the department faculty. Project and activities will be designed that will require students to demonstrate their mastery of curricular goals as outlined in the department's assessment program. Majors are strongly encouraged to enroll during their final spring semester prior to graduation. Prerequisites: senior standing or consent of instructor.

## ANTH 495 Special Studies (1-4)

During the first week of the semester, students interested in special studies in anthropology must submit a written proposal and an outline of projected work to a faculty sponsor for approval. Each unit of credit requires a minimum of 45 hours of work per semester (3 hours per unit per week), including regular consultation with an evaluation by the faculty member in charge. Prerequisite: ANTH 201 or 203; or an appropriate upper-division course in anthropology; or an upper-division course relevant to the proposed topic from another discipline.

## ANTH 496 Agency Internships (1-3)

Students in the internship program have an opportunity to apply anthropological theory and methods to a variety of situations in public and private agencies. Internships require faculty approval, a minimum of 45 hours of work per unit per semester, including regular consultation with the faculty sponsor. This internship is usually overseen by supervisors in off-campus agencies who report to faculty supervisors. Cr/NC only. May be repeated for credit. Prerequisite: upper-division standing or consent of instructor.

## ANTH 496A Internship in Archaeology (2-3)

Students will team with staff of SSU's Anthropological Studies Center to perform, for example, pre-field research, recognize and record archaeological sites, use GPS equipment, make computer-generated maps, and complete State record forms. Activities will vary depending on available projects. Internships require a minimum of 45 hours of work per semester/unit, including regular consultation with faculty sponsor. Cr/NC only. Prerequisite: Consent of instructor.

## ANTH 497 Anthropology Internships (1-3)

Students in the internship program have an opportunity to apply anthropological theory and methods to a variety of situations in public and private agencies. Internships require faculty approval, a minimum of 45 hours of work per unit per semester, including regular consultation with and evaluation by the faculty sponsor. Cr/NC only. May be repeated for credit. Prerequisite: upper-division standing or consent of instructor.

## ANTH 500 Proseminar (4)

Introduction to research methodology in the social sciences; research design and implementation; use of library and archival materials; editorial review of writing; and guide to preparation of professional anthropological papers. Prerequisite: admission into Cultural Resources Management Program or consent of instructor.

## ANTH 502 Archaeology: History and Theory (3)

The rise of theoretical archaeology, with emphasis on the range of theoretical approaches taken by archaeologists and the nature of archaeological problem solving in theory and practice. Prerequisite: graduate status or consent of instructor.

## ANTH 503 Seminar: Cultural Resources Management (3)

Who owns the past and who has the right to manage it? Review of federal, state, and local legislation pertinent to the inventory, evaluation, and treatment of archaeological sites, historic buildings, and places that are important to Native Americans and others. Emphasis is placed on process of evaluation according to legal guidelines including, CEQA, the Section 106 Process, and the National Register of Historic Places. Prerequisite: graduate standing or consent of instructor.

ANTH 554 Field School in Cultural Heritage Management (4) A field school designed to introduce graduate students to fieldwork in cultural heritage management. Students will learn how to design and carry out a research project utilizing skills appropriate to the specific focus of their project. Students will $b$ required to write a report based on their research and experiences. Contact department for more information. May be repeated for credit. Prerequisite: graduate status or consent of instructor.

## ANTH 578 Project Continuation (1-3)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. $\mathrm{Cr} /$ NC only.

## ANTH 590 Advanced Seminars in Anthropology (1-3)

In-depth consideration of specific anthropological, applied anthropology or anthropologically related topics. Topics will vary from semester to semester. Prerequisite: graduate standing or consent of instructor.

## ANTH 592 Practicum in National Register of Historic Places (2)

 This hands-on course will introduce students to the process by which historic buildings are recorded and evaluated for eligibility to the NRHP. Classes will cover basic wood-frame construction techniques, basic architectural description, and how to undertake focused historical research in official records. Students will learn to identity and describe a historic building, document it using photographs, plans, and detailed drawings, and reconstruct its history. Prerequisite: graduate standing or consent of instructor.
## ANTH 595 Special Studies (1-4)

During the first week of the semester students interested in special studies in anthropology must submit a written proposal and an outline of projected work to a faculty sponsor for approval. Each unit of credit requires a minimum of 45 hours of work per semester, which includes regular consultation with and evaluation by the faculty member in charge. Prerequisites: graduate standing and consent of supervising instructor and department chair.

## ANTH 596 Agency Internships (1-3)

Students will have an opportunity to apply anthropological theory and methods and/or cultural resources management procedures as interns with public and private agencies. Internships require faculty approval, a minimum of 45 hours of work per unit per semester, including regular consultation with the faculty sponsor. This internship is usually overseen by supervisors in off-campus agencies who report to faculty supervisors. Cr/NC only. May be repeated for credit.

## ANTH 596A Internship in Archaeology (2-3)

Students will team with staff of SSU's Anthropological Studies Center to perform, for example, pre-field research, recognize and record archaeological sites, use GPS equipment, make computer-generated maps, and complete state record forms. Activities will vary depending on available projects. Internships require a minimum of 45 hours of work per semester/unit, including regular consultation with faculty sponsor. Cr/NC only. Prerequisite: graduate standing and consent of instructor.

## ANTH 596B Internship in Cultural Resources Management (2-3)

 Students will team with staff of SSU's Anthropological Studies Center to get intensive, hands-on experience in carrying out CRM projects, including: responding to requests for proposals, assessing the legal context of their work, budgeting, field logistics, cultural resources inventory, mapping, and report writing. Internships require a minimum of 45 hours of work per semester/unit, including regular consultation with faculty sponsor. Cr/NC only. Prerequisite: graduate standing and consent of instructor.
## ANTH 596C Internship in Information Management (2-3)

Students will team with staff of the Northwest Information Center to get intensive instruction in and experience with a variety of archival and research-based information, and a range of data management techniques relevant to current practices in cultural resources management and historic preservation in the regulatory context. Internships require a minimum of 45 hours of work per semester/unit, including regular consultation with faculty sponsor. Cr/NC only. Prerequisite: graduate standing and consent of instructor.

## ANTH 597 Anthropology Internships (1-3)

Students will have an opportunity to apply anthropological theory and methods and/or cultural resources management procedures as interns with public and private agencies. Internships require faculty approval, a minimum of 45 hours of work per unit per semester, including regular consultation with and evaluation by the faculty sponsor. Cr/NC only. May be repeated for credit. Prerequisite: graduate standing and consent of instructor.

## ANTH 598 Teaching Assistant in Anthropology (1-3)

Provides experience by assisting the instructor in an anthropology course. Open only to advanced students for specific anthropology courses approved by the department. Prerequisites: graduate standing and consent of instructor.

## ANTH 599A Thesis (2-3)

Planning and execution of a research program culminating in the completion of a thesis (4 units maximum for 599A plus B). Prerequisite: filing an Advancement to Candidacy form, which requires completion of a thesis prospectus in Special Studies 595 (1) and formation of student's Graduate Committee.

## ANTH 599B Thesis (2-3)

Planning and execution of a research program culminating in the completion of a thesis (4 units maximum for 599A plus B). Prerequisite: filing an Advancement to Candidacy form, which requires completion of a thesis prospectus in Special Studies 595 (1) and formation of student's Graduate Committee.

## Art History (ARTH)

## ARTH 199 Student-Instructed Course (1-4)

Please see current Schedule of Classes for details.

## ARTH 200 Information Resources and Skills for Art History

 (1-2)Techniques for finding library and information resources in visual culture and art history. Covers the use and stategies for accessing information and images in the university library and incorporating that visual imagery into research projects using computer applications. Students will learn about facilities available and how to access, retrieve and evaluate information. Teaching includes lectures, demonstrations and online research for both electronic and print sources. Students will gain experience with software packages such as Pagemaker and Photoshop using the graphics lab in the art department.

## ARTH 210 Introduction to Art History (3-4)

A survey course covering painting, sculpture and architecture of prehistoric and primitive cultures, and ancient, classical and medieval civilizations. Satisfies GE, category C1 (Fine Arts).

## ARTH 211 Introduction to Art History (3-4)

A survey course covering painting, sculpture and architecture from the Renaissance to the present with a global perspective. Satisfies GE, category C1 (Fine Arts).

## ARTH 212A Introduction to World Film History A (3)

Lecture, 2 hours; films, 2 hours. A chronological survey of historically representative and significant films tracing the evolution of the cinema as an art form. Includes study of the primitive period, the emergence of the feature film in America, Europe and Japan, the advent of sound, the "great studio era," and alternative cinemas of the 1930s and 1940s. Satisfies GE, category C1 (History of the Fine Arts).

## ARTH 212B Introduction to World Film History B (3)

Lecture, 2 hours; films, 2 hours. A chronological survey of historically representative and significant films tracing the evolution of the cinema as an art form. Includes study of post-war movements such as Neorealism and the French New Wave, cinematic modernism, the post-war film in Asia, and the emergence of new cinemas in the Third World and Eastern Europe. Satisfies GE, category C1 (Fine Arts).

## ARTH 270A Survey of South and Southeast Asian Art (3-4)

A general survey of the arts and cultures of South and Southeast Asia, including India, Thailand, Indonesia, Cambodia and Myanmar, from prehistoric periods to the present. Satisfies GE, category C1 (Fine Arts).

## ARTH 270B Survey of Chinese,Japanese, and Asian Art (3-4)

A general survey of the arts and cultures of China and Japan from prehistoric periods to the present. Satisfies GE, category C1 (Fine Arts).

## ARTH 300 Graded Assistance Projects (1-4)

Designed for advanced students to gain practical experience in the functions of art studios, workshops, classroom, visual resources management, or exhibition projects. Work under supervision of faculty or staff. Each unit requires 3 hours of work per week. Grade only. (See also ARTH 499.)

## ARTH 301 Assistance Projects (1-4)

Designed for advanced students to gain practical experience in the functions of art studios, workshops, classrooms or exhibition projects. Work under supervision of faculty or staff. Each unit requires 3 hours of work per week. Cr/NC only.

## ARTH 312 Principles of Arts Management (3)

May be offered every three or four semesters. A seminar surveying the management of nonprofit visual arts institutions in the United States and the role of those institutions within society. Topics range from practical information, such as the structure of nonprofit organizations, the role of a board of trustees, fundraising, financial management, marketing, and the growing use of technology in the arts, to theoretical concepts being discussed within the field. Guest lecturers will be featured on a regular basis, and several field trips will be scheduled.

## ARTH 361 Classic Narrative Film (3)

Theory and analysis of classic Hollywood film. Emphasizes the evolution of the narrative systems, the art of editing, the history of American genre film making, the problematic notion of the auteur, and the place of the spectator in the classic fiction film.

## ARTH 363 Other Cinemas (3)

Alternative film practices (i.e., outside the classic Hollywood model). Each semester's course is organized around a movement, a theme or a critical problem and includes the study of Western and non-Western films. May be repeated for credit toward the minor.

## ARTH 395 Community Involvement Program (1-4)

Student-directed creative activities in behalf of nearby off-campus community agencies. One to 4 units of credit, based on 30 hours of contributed effort per unit per semester. Art education assistance and selected private enterprises. Six CIP units may be applied toward a degree. Prerequisite: prearranged program with community host-sponsor and consent of instructor and the department chair.

## ARTH 399 Student Instructed Course (1-4)

Please see current Schedule of Classes for details.

## ARTH 400 Art History Information Resourse and Research

 Skills (2)Course for upper-division majors researching information for their senior thesis projects. Covers the use and evaluation of methods for finding technology and appropriate software. Prerequisite: upper division art history standing or a related major and concurrent enrollment or completion of ARTH 490H.

## ARTH 420 Pre-Classical Art (3-4)

Seminar/survey course covering the history of the arts and architecture of Egypt, Crete and the Near East before the conquests of Alexander the Great.

## ARTH 422 Greek Art (3-4)

A seminar/survey course covering the history of Greek art and architecture from the Proto-geometric through the Hellenistic periods (ca. 1000 BC-100 AD).

## ARTH 424 Roman Art (3-4)

A seminar/survey course covering Etruscan and Roman art and architecture from the early Republic through the age of Constantine, 4th Century, C.E.

## ARTH 430 Early Christian, Byzantine and Early Medieval Art

 (3-4)A seminar/survey course covering Christian art from its origins in the Third Century through the fall of Constantinople in the East and the rise of the Romanesque in the West (ca. 1050). Content emphasis may vary.

## ARTH 432 Romanesque and Gothic Art (3-4)

A seminar/survey course covering Medieval art and architecture of the Romanesque and the Early and High Gothic periods. Content emphasis may vary.

## ARTH 432 Romanesque and Gothic Art (3-4)

A seminar/survey course covering Medieval art and architecture of the Romanesque and the Early and High Gothic periods. Content emphasis may vary.

## ARTH 440 Early Italian Renaissance Art (3-4)

Seminar/survey course covering painting, sculpture and architecture in Italy in the 14th and 15th centuries.

## ARTH 442 Later Italian Renaissance Art (3-4)

Seminar/survey course covering painting, sculpture and architecture of Italy in the 16th century. Includes High Renaissance and Mannerist periods.

## ARTH 444 Northern Renaissance Art (3-4)

A seminar/lecture course covering painting, printmaking, sculpture and architecture of the 14th-16th centuries in Europe, apart from Italy.

## ARTH 450 Baroque Art (3)

A seminar/survey course on Italian and/or Northern European painting, architecture and sculpture of the 17th century. Content emphasis may vary. May be repeated with consent of instructor.

## ARTH 452 Eighteenth Century Art (3-4)

A seminar/survey course on 18th Century painting, architecture, and sculpture.
Content emphasis may vary.

## ARTH 454 Nineteenth Century Art (3-4)

A culturally diverse survey of painting and sculpture in Europe, which may include non-Western traditions, ca. 1780 through the end of the 19th century. Satisfies upper-division GE, category C1 (Fine Arts). Prerequisite: HUM 200 or ENGL 101.

## ARTH 456 The History of Photography (3-4)

A survey course examining photographers and their work from the beginning of the art form to the present day. Content emphasis may vary.

## ARTH 460 History of American Art (3-4)

A survey of the American experience from pre-Colonial times to the present, with insights into European, non-Western, and native influences. Satisfies upper-division GE, category C1 (History of the Fine Arts). Prerequisite: HUM 200 or ENGL 201.

## ARTH 461 Selected Topics in Film (3)

A genre, the work of a single filmmaker, a cinematic movement, a national cinema, a focused study of a problem in film history or aesthetics, etc. May be repeated for credit toward the minor.

## ARTH 464 History of Modern Art-20th Century (3-4)

A survey of art of the Western world in the 20th century to the end of World War II, including non-Western and native influences. Satisfies upper-division GE, category C1 (Fine Arts). Prerequisite: HUM 200 or ENGL 101.

## ARTH 465 Modern Art from 1945 to 1979 (3-4)

A survey of American and European developments in late modern and early postmodern art, focusing on work made between 1945 and 1979. Movements such as Abstract Expressionism, Pop, Minimalism, Photo-Realism, Earth Art, and Feminist Art will be discussed in depth, and artists working outside New York will also be considered. Satisfies upper-division GE, category C1 (Fine Arts). Prerequisite: HUM 200 or ENGL 101.

## ARTH 466 Contemporary Art (3-4)

A survey of Western and international developments in postmodern and current art. The course will examine some of the artists and movements that were recognized in the 1980s, such as Neo-Expressionism, Appropriation, Graffiti Art, Neo-Geo, Image-Text, and Video/Computer art. In addition to a chronological overview, current issues and theories necessary for a thorough understanding of contemporary art and artists will be explored. Readings and written papers on designated topics will be required. Prerequisite: ARTH 465.

## ARTH 470A South and Southeast Asian Art (3-4)

A seminar/survey course examining in depth the arts of South and Southeast Asia, including India, Thailand, Indonesia, Cambodia and Myanmar, from their beginnings to the present. Emphasis on sculpture and painting. Content emphases may vary. May be repeated with consent of instructor.

## ARTH 470B Chinese and Japanese Asian Art (3-4)

A seminar/survey course examining in depth the arts of China and Japan from their beginnings to the present. Emphasis on sculpture and painting. Content emphases may vary. May be repeated with consent of instructor.

## ARTH 474 Islamic ARt (3-4)

Course explores the formation, establishment and variations of Islamic artistic culture from its beginnings in the 7th century through the apogee of the Ottoman (Turkish) Empire in the 16th and 17th centuries.

## ARTH 476 Beyond European Trad: Selected Topics (3-4)

A seminar/survey course whose emphasis may include the art of Africa, Native America, Hispanic, Latin America and/or other indigenous cultures.

## ARTH 480 Selected Topics in Art History (1-4)

A seminar/lecture course dealing with intensive study of a particular art topic. The topic will vary from semester to semester. The course may be repeated and may be applicable to requirements for a major in art. Consult advisor and department chair. Prerequisites: major status, advanced standing and consent of instructor.

## ARTH 490F Theory and Methods of Film Criticism (3)

A senior-level seminar course that allows students to develop their critical expertise and plan an original piece of research and interpretation, to be presented as the senior paper.

## ARTH 490H Pro-Seminar in Art Hist Method (3-4)

A seminar concentrating on the discipline and philosophy of art historical studies. Emphasis will be placed on formal and stylistic problems, research techniques, and appropriate new research technology. Readings designed to stress the variety of relevant approaches possible to a given problem. May be offered only once every two years. Prerequisite for nonmajors: consent of instructor: students must have completed two Art History papers in upper division courses to be admitted.

## ARTH 491F Senior Thesis in Film (1)

Submission of a scholarly paper to the faculty is required in the senior year. The student works in a tutorial situation with the film historian.

## ARTH 491H Senior Thesis in Art History (1-2)

Submission of a scholarly paper to the faculty is required in the senior year. The student works in a tutorial situation with an art historian. Must be taken with two separate advisors.

## ARTH 492 Senior Honors Thesis (1-2)

The honors student prepares an in-depth research paper under the guidance of members of the art history or film faculty. The student will utilize scholarly resources of the region and produce an original research paper of extended length. Participation by consent of the art history faculty. Must be taken with two separate advisors.

## ARTH 494 Gallery and Museum Methods (3)

An advanced lecture and activity course in methods and techniques of nonprofit gallery and museum practice. Topics include history and philosophy of museums, their structure and purpose, exhibition development, and a museum's relationship to the public. Current issues such as accountability, management of cultural artifacts, censorship, and funding for the arts will also be discussed. Students participate in various functions of the University Art Gallery including exhibition installation and design, opening receptions, publicity, fundraising events, and administration. Two off-campus field trips will be planned.

## ARTH 495 Special Studies (1-4)

For upper-division art history and film history majors only. Consult department faculty in your area of emphasis. The university contract form with required signatures of student, instructor, faculty advisor and department chair must be completed before registering for special studies units. Not applicable to the art history major or minor.

## ARTH 496 Directed Field Research Experience (1)

Travel to galleries and museums in various North American cities. Individual and group participation required. Destinations vary; consult semester schedule for specifics. May be repeated and may be applicable to requirements in the major. Fee required at time of registration. Prerequisites: major status and advanced standing or consent of instructor. Cr/NC only.

## ARTH 497 Directed Field Research Experience (1)

Travel to various destinations, which vary depending on type of field research being offered; consult semester schedule for specifics. May be repeated and may be applicable to requirements in the major. Students will be responsible for a field research project(s), based on the trip. Fee required at time of registration. Prerequisites: major status and advanced standing or consent of instructor.

## ARTH 499 Internships (1-4)

Students in the internship program will have an opportunity to gain practical skills by working in a variety of capacities, including gallery and museum situations in the private and public sectors. Credit will be given for completion of 3 hours of work per week per unit, by prior arrangement with department coordinator. Prerequisite: consent of instructor. A-F and Cr/NC. (See also ARTH 300.)

## ARTH 590H Proseminar in Art History Method (1-3)

Course for ITDS graduate and other art related students which will apply research technology to their thesis projects. Offered concurrently with ARTH 490H.

## ARTH 595 Special Studies (1-4)

Prerequisites: graduate standing and consent of instructor.

## ARTH 599 InTERNSHIP (1-4)

Graduate students, working through ITDS or related programs, will have an opportunity to gain practical skills by working in a variety of capacities, including gallery and museum situations in private and public sectors. Credit will be given for completion of 3 hours of work per week per unit, by prior arrangement with department coordinator and chair. Prerequisite: consent of instructor. A-F and $\mathrm{Cr} /$ NC.

## Art Studio (ARTS)

## ARTS 101 Art Fundamentals (3)

Basic design. A studio course in the study of form, color and composition in 2-dimensional art; rendering of 3-dimensional objects from observation using line and values, and principles of perspective. Basic requisite course for studio courses on the 200 level.

## ARTS 102 Fundamentals of Three Dimension Design (3)

A studio course introducing the student to the principles of three dimensional design. Sculptural, architectural and design projects are realized through a series of assigned projects exploring form, volume, plane, line and structure. Traditional and non-traditional sculptural materials are used. Prerequisite course for 200 level studio courses. Laboratory fee due at time of registration.

## ARTS 103 Safety and Shop Practices (1)

An activity course required for new or transfer sculpture students, or for any student wishing to have access to the wood shop or use power and hand tools dispensed from the tool crib. Class is recommended for all students majoring in Art Studio. Required for students in the Sculpture emphasis. Examinations required every semester for continued use of power equipment. Laboratory fee payable at registration.

## ARTS 199 Student Instructed Course (1-4)

Please see current Schedule of Classes for details.

## ARTS 200 Photography in the World (3-4)

Lecture presenting overview of the role of photography in the world and an introduction to the creation of photographs. Integrates intellectual, analytical, and creative skills and capacities by examining photography from several perspectives. Photography's history, current forms, uses and conventions included. Students will practice photography as a creative communicative endeavor.

## ARTS 202 Beginning Drawing (1-4)

A beginner's studio course in drawing employing a variety of media, including pencil, ink, charcoal, conte, and pastel. Includes a unit on objective drawing.

## ARTS 204 Beginning Life Drawing (1-4)

An introductory studio course in drawing from nature, including the human figure. Basic problems in dealing with the figure as subject matter.

## ARTS 208 Basic Black and White Рhotography (2-4)

A studio introduction to basic photographic processes, including lecture/discussion, reading, lab work and critique. Covers handling the camera; previsualization; history; exposure control; perceiving and working with light; roll film processing; print enlarging and finishing for presentation; balancing technique and individual creativity. Lab fee payable at time of registration.

ARTS 210 Introduction to Digital Imaging (1-3)
Covers basic digital processes: lecture/discussion, reading, lab work, individual projects, critique. Topics include: fundamental digital theory, hardware/software/ technique of 2-D artwork, image acquisition, basic digital photography, image manipulation (Photoshop), vector based design (illustrator), digital output, and overview of strategies/practices of contemporary digital artists. Lab fee required.

## ARTS 220 Beginning Painting (1-4)

Studio course in painting in a variety of media, with primary concentration in oil. Directed problems. Work from imagination, still life, and the figure. Group and individual criticism. Prerequisite: previous or concurrent enrollment in ARTS 101.

## ARTS 229 Beginning Ceramics (2-4)

A studio course surveying a wide range of ceramic processes, including a variety of hand building techniques, working on potter's wheel, glazing and firing. Directed problems cover both traditional/sculptural aspects of ceramics. Course includes lectures, demonstrations, discussion, critiques and laboratory. Lab fee payable at time of registration. Prerequisite: ARTS 102.

## ARTS 236 Beginning Sculpture (2-4)

A studio course offering a range of traditional and non-traditional sculptural processes and materials. Introduces the beginning student to welding, woodworking, mold-making and casting. Group critiques, field trips, textbook required. Lab fee due at time of registration. Prerequisites: ARTS 102.

## ARTS 245 Beginning Printmaking (2-4)

A studio course introducing the student to a variety of printmaking media, which may include etching, lithography, woodcut, and linocut. Lecture, demonstration, and laboratory work, which may include proofing, printing, and a small edition. Laboratory fee payable at time of registration. Prerequisite: ARTS 101.

## ARTS 298 Selected Topics in Art Studio (1-4)

A beginning studio course dealing with intensive study of a particular art topic, which may vary from semester to semester. May be repeated, and applicable to requirements for a major in art. Prerequisite: previous or concurrent enrollment in ARTS 101 and 102.

## ARTS 300 Graded Assistance Projects (1-4)

Designed for advanced students to gain practical experience in the functions of art studios, workshops, classrooms or exhibition projects. Work under supervision of faculty or staff. Each unit requires 3 hours of work per week. Grade only.

## ARTS 301 Assistance Projects (1-4)

Designed for advanced students to gain practical experience in the functions of art studios, workshops, classrooms or exhibition projects. Work under supervision of faculty or staff. Each unit requires 3 hours of work per week. Cr/NC only.

## ARTS 302 Intermediate Drawing (1-4)

Directed problems in drawing for the intermediate student. Work from both imagination or observational approaches. Prerequisite: ARTS 202 or 204.

## ARTS 304 Intermedate Life Drawing (1-4)

A workshop in drawing the human figure for students who have fulfilled the beginning drawing prerequisite or are at intermediate skills levels. Group and individually directed special problems related to drawing the live model. Prerequisite: ARTS 204.

## ARTS 308 Рhotographic Darkroom Processes (2-4)

A process course with individualized development of photographic skills and theory. Concentration on print quality, including zone system. Familiarization with papers, films, and developers. Various processes expanding upon black and white technology and darkroom experimentation. Laboratory fee payable at registration. Prerequisite: ARTS 208 and consent of instructor, based on portfolio review.

## ARTS 310 Digital Imaging (1-3)

Covers intermediate digital techniques: lecture/discussion, reading, lab work, individual projects, critiques. Topics may include: ditial theory, hardware/software techniques of 2D artwork, image manipulation (Photoshop), vector-based design (Illustrator), multimedia design, integration of digital media into traditional practices and overview of strategies/practices of contemporary digital artists. Lab fee required. Prerequisites: ARTS 210.

## ARTS 320 Intermediate Painting (1-4)

Intermediate-level studio course in painting. Directed and individual problems. Group and individual criticism. May only be repeated by majors. Prerequisite: ArtS 220. Laboratory fee payable at time of registration.

## ARTS 329 Intermedate Ceramics (2-4)

A studio course concentrating on wheel and hand building techniques to explore formal/ functional issues in clay. Emphasis is placed on design issues, content and developing a personal visual vocabulary through individual and group critiques. Laboratory exercises to develop color/texture in glazes and firing techniques are also covered. Lab fee payable at time of registration. Prerequisite: ARTS 229.

## ARTS 335 Intermedate Bronze Foundry (2-7)

In-depth instruction of processes involved in producing bronze sculpture. Students explore all aspects of realizing sculpture in bronze, from clay or plaster molds to wax: various methods of wax working/mold making, including ceramic shell, sand and investment; casting; and patination. Group critiques, fieldtrips. Laboratory fee due at time of registration. Prerequisite: ARTS 236, or consent of instructor. Textbook required.

## ARTS 336 Intermediate Sculpture (1-4)

A studio course with directed projects. Emphasis on content and developing a personal sculptural vocabulary through experimentation with traditional and non-traditional materials and processes. Group critiques, field trips, short writing assignments. Textbook required. Laboratory fee due at time of registration. Prerequisite: ARTS 236.

## ARTS 340 Intermedate Etching and Woodcut (1-4)

A studio course on the intermediate level in various printmaking aspects, including woodcut, engraving, photo-engraving, monotype, and etching. Laboratory fee payable at time of registration. Prerequisite: ARTS 245.

## ARTS 342 Intermediate Lithography (1-4)

Continued studio work at the intermediate level in lithographic methods, including color technology and conceptual development. Lecture, demonstration, and studio work. Laboratory fee payable at time of registration. Prerequisite: ARTS 245.

## ARTS 382 Intermediate Monoprint (1-4)

An intermediate studio course emphasizing single and multiple images derived from a variety of original sources, including painting, hand-painted prints, collagraphs, chine colle, and multiple manipulated prints. A maximum of 3 upper-division units may be applied toward a printmaking or a painting emphasis. Laboratory fee payable at time of registration. Prerequisite: ARTS 245.

## ARTS 395 Community Involvement Program (1-4)

Student-directed creative activities in behalf of nearby off-campus community agencies. One to 4 units of credit, based on 30 hours of contributed effort per unit per semester. Art education assistance and selected private enterprises. Six CIP units may be applied toward a degree. Prerequisite: prearranged program with community host-sponsor and consent of instructor.

## ARTS 399 Student Instructed Course (1-4)

Please see current Schedule of Classes for details.

## ARTS 400 Art in the Classroom (3)

Combined lecture/lab course for teaching credential candidates (K-12). Skills, methods and ideas for introducing art education to children/adolescents will be discussed/practiced, based on the California Framework for Art Education, and intended to stress the necessity of art instruction for the young. Art education history will be covered.

## ARTS 402 Advanced Drawing (1-4)

Independent work from imagination or nature for the advanced student. Can be arranged as correlative drawing problems done in conjunction with advanced studio projects in area of emphasis. May be repeated for up to a maximum of 12 units. Prerequisite: at least 4 units of ARTS 202 or 204, and 3 units of 300 -series drawing courses, or consent of instructor.

## ARTS 404 Advanced Life Drawing (2-4)

An advanced studio life drawing class with directed special problems related to drawing the live model and to drawing from nature. May be repeated for up to a maximum of 12 units. Prerequisite: ARTS 304.

## ARTS 420 Advanced Painting (2-4)

Continued studio work in painting in oils and/or acrylics. May be repeated by art majors only for credit up to a maximum of 9 units; more for B.F.A. students. Prerequisite: ARTS 320. Laboratory fee payable at time of registration.

## ARTS 429 Advanced Ceramics (2-4)

A studio course addressing advanced throwing and hand building, glazing, and firing techniques. Emphasis is placed on content and development of a personal voice in ceramics. Students are encouraged to create individual project plans and work large scale. Prerequisites: ARTS 229, 329. Lab fee payable at time of registration.

## ARTS 430 Large Scale Clay and Install Ceramic Sculpture

 (2-4)Course concentrates on large scale ceramics sculpture/installation. Hand building and wheel throwing techniques utilized. Emphasis placed on project planning, content and developing a personal visual vocabularly through individual/group critiques. Lab fee payable at registration. Prerequisite: ARTS 229 and 329 or 330. Can replace one semester of Advanced Ceramics.

## ARTS 432 Ceramic Materials (2-4)

General course covering origin/properties of clays; composition, properties/uses of materials in glazes; and calculation of glaze formulas/batches. Laboratory exercises involve use/properties of materials, development of clay body compositions and development of color/texture in glazes. Prerequisites: ARTS 229 and 330 or 329. Can replace one semester of Advanced Ceramics.

## ARTS 435 Advanced Bronze Foundry (2-4)

In-depth instruction of processes involved in producing bronze sculpture. Students explore all aspects of realizing sculpture in bronze, from clay or plaster molds to wax: various methods of wax working/mold making, including ceramic shell, sand and investment; casting; and patination. Group critiques, fieldtrips. Laboratory fee due at time of registration. Prerequisite: ARTS 236, or consent of instructor. Textbook required.

## ARTS 436 Advanced Sculpture (2-4)

Studio and field work that emphasizes the development of individual style. Group critiques, field trips, short writing assignments. Text book required. May be repeated for credit up to a maximum of 15 units, more for B.F.A. Laboratory fee payable at time of registration. Prerequisite: 6 units of ARTS 336 or consent of instructor.

## ARTS 440 Advanced Etching and Woodcut (1-4)

Advanced studio problems in relief and intaglio printmaking methods, including relief, engraving, photo-engraving, monotype and etching. May be repeated for credit up to 12 units. Laboratory fee payable at registration. Prerequisite: ARTS 340.

## ARTS 442 Advanced Lithography (2-4)

Advanced studio work in the lithography medium. Work with images on stone or metal plates involving black and white and some color processes, printing of limited editions and single proofs. Lecture, demonstration, and laboratory work. May be repeated for credit up to a maximum of 12 units. Laboratory fee payable at time of registration. Prerequisite: ARTS 342.

## ARTS 457 Advanced Photography (1-4)

An advanced studio course, with an emphasis on contemporary photography, black \& white and color, and student critiques in conjunction with in-progress darkroom work. Students contract for a body of work for the semester, culminating with an individual presentation of a final, professional portfolio. Prerequisites: ARTS 208 and two semesters of ArtS 308 or consent of instructor, based on portfolio review.

## ARTS 465 BFA SEminar (1-4)

A studio seminar class designed specifically for B.F.A. students. Advanced topics in art and aesthetics will be examined through selected readings, writing and discussion. In-depth critiques of each student's work will be held. B.F.A. students only.

## ARTS 466 BFA Portfolio Artists' Practices (3)

Professional issues will be addressed in the preparation and presentation of a B.F.A. exhibition that will be reviewed and critiqued by the studio faculty. Students will be expected to give an oral defense of their work, prepare a statement, a curriculum vitae, and document their work in preparation for graduation. B.F.A. students only.

## ARTS 470 Art: Theory and Practice (2-4)

Advanced seminar course combining lecture/activity. Emphasis placed on development of proposals for works of art, in response to slide lectures and assigned readings, and exploration of new methods and materials outside student's usual medium. Participation in group critiques is an essential element of course. Lab fee. Prerequisite: Instructor(s) consent.

## ARTS 482 Advanced Monotype (1-4)

An advanced studio course emphasizing single and multiple images derived from a variety of original sources, including painting, hand-painted prints, chine colle and multiple manipulated prints. Up to 3 upper-division units may be applied toward a printmaking or painting emphasis. Up to 12 units may be repeated for credit. Laboratory fee payable at registration. Prerequisite: ARTS 382.

## ARTS 491 Visiting Artists' Lecture Series (1)

This is a noontime visiting artists' lecturer series for the Art and Art History department. Cr/NC only. Attendance and paper required.

## ARTS 492 BA Portfolio Artists' Practices (1-3)

Professional issues will be addressed in the preparation and presentation of a portfolio of student work. Students will be expected to give an oral defense of their work, prepare a statement, a curriculum vitae, and document their work in preparation for graduation.

## ARTS 495 Special Studies (1-4)

For upper-division art majors only. Consult department faculty in your area of emphasis. The university contract form with required signatures of student, instructor, faculty advisor, and department chair must be completed before registering for special studies units. Not applicable to the art minor or non-art major.

## ARTS 496 Directed Field Research Experience (1)

Travel to galleries and museums in various North American cities. Individual and group participation required. Destinations vary; consult semester schedule for specifics. May be repeated and may be applicable to requirements in the major. Fee required at time of registration. Prerequisites: major status and advanced standing or consent of instructor.

## ARTS 497 Directed Field Research Experience (1-4)

Travel to various destinations, which vary depending on type of field research being offered; consult semester schedule for specifics. May be repeated and may be applicable to requirements in the major. Students will be responsible for a field research project(s), based on the trip. Fee required at time of registration. Prerequisites: major status and advanced standing or consent of instructor.

## ARTS 498 Selected Topics in Art Studio (1-4)

A studio course dealing with intensive study of a particular art topic, which may vary by semester. May be repeated and applicable to requirements for a major in art. Consult advisor and department chair. Prerequisites: major status, advanced standing and instructor consent.

## ARTS 499 Internship (1-4)

Students in the internship program will have an opportunity to gain practical skills by working in a variety of gallery and museum situations in the private and public sectors. Credit will be given for completion of 3 hours of work per week, per unit, by prior arrangement with department coordinator. Prerequisite: consent of instructor. A-F or Cr/NC.

ARTS 595 Special Studies (1-4)
Prerequisites: graduate standing and consent of instructor.

## Astronomy (ASTR)

## ASTR 100 Descriptive Astronomy (3)

Lecture, 3 hours. A survey designed primarily for non-science majors, including an introduction to historic astronomy, Newton's Laws, gravitation, atomic structure, light, and telescopes. Take a tour of the solar system, learn about space flight, stars and stellar evolution, galaxies and the structure of the universe. Satisfies GE, category B1 or B3 (Physical Sciences).

## AStR 231 Introduction Observational Astronomy (2)

Lecture, 1 hour; laboratory, 3 hours. Principles of astronomical measurement techniques with field and laboratory studies of astronomical objects. Identification of constellations, astronomical coordinates, use of the telescope, techniques in imaging, photometry, and spectroscopy. Satisfies GE, category B1 or B3 (Physical Sciences) and GE laboratory requirements. Prerequisite: previous or concurrent enrollment in ASTR 100.

## ASTR 303 Extraterrestrial Intelligence and Interstellar Travel

 (3)Lecture, 3 hours. An open-minded appraisal of the possibilities and prospects for life in the universe and travel to the stars. Topics to be covered include a history of human thinking about extraterrestrial life; the nature of life; possible appearance and nature of extraterrestrial life; the Drake Equation; detection of extraterrestrial planets, planetary habitability, the Fermi Paradox; SETI; spaceflight; interstellar travel. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: ASTR 100.

## ASTR 305 Frontiers in Astronomy (3)

Lecture, 3 hours. A survey of recent developments in astronomy and how these breakthroughs are made: the discovery of planets orbiting other stars; the explosive deaths of stars and the creation of neutron stars and black holes; the study of the origin and fate of the Universe, including the search to understand dark matter and dark energy. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: one course in astronomy.

## ASTR 331 Astronomical Imaging (2)

Lecture, 1 hour; laboratory, 3 hours. An introduction to the methods and techniques of astronomical imaging. The course will offer a practical approach to using charged-coupled device (CCD) detectors and computer-controlled telescopes to obtain images of the moon, planets, stars, and nebulae. Topics include telescope control, planning observing programs, identifying astronomical objects, determining image sizes and exposure times, and image processing techniques. Prerequisite: ASTR 231 or consent of instructor.

## ASTR 350 Cosmology (3)

Lecture, 3 hours. A survey of what we know about the Universe and how scientists have learned it. Topics include the Big Bang, cosmic inflation, surveys of galaxies, the origin and evolution of structure in the Universe, dark matter, and dark energy. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: ASTR 100.

## ASTR 380 Astrophysics: Stars (3)

Lecture, 3 hours. A quantitative study of the structure and evolution of stars, including stellar interiors and atmospheres, nucleosynthesis and late stages of stellar evolution. Prerequisites: PHYS 314 and MATH 211.

## ASTR 396 Selected Topics in Astronomy (1-3)

Lecture, 1-3 hours. A course of lectures on a single topic or set of related topics not ordinarily covered in the astronomy curriculum. The course may be repeated for credit with a different topic. Prerequisite: consent of instructor.

ASTR 482 Adv Observational Astronomy (2)
Lecture, 1 hour; laboratory, 3 hours. A study of advanced observing techniques including imaging, and spectroscopy. Emphasis on the use of telescopes, instrumentation, and data processing including photometry and astrometry. Discussion of techniques across the electro-magnetic spectrum. Statistical treatment of data and error analysis. Prerequisites: ASTR 231, PHYS 209B, and 210B, and MATH 161; or consent of instructor.

## ASTR 492 Instructional Design Project (2)

A directed project to develop at least one laboratory experiment and/or classroom activity that teaches basic concepts in undergraduate astronomy. Both written and oral presentations (including a demonstration of the experiment or activity) will be required. Prerequisites: PHYS 214 and 216 or PHYS 210B and 209B; ASTR 231.

## ASTR 495 Special Studies (1-4)

The Department of Physics and Astronomy encourages independent study and considers it to be an educational undertaking. Students wishing to enroll for special studies are required to submit to their supervising faculty members proposals which outline their projects and exhibit specific plans for their successful completion.

## ASTR 497 Undergraduate Research in Astronomy (2)

Supervised research in an area of astronomy that is currently under investigation by one or more members of the physics and astronomy department's faculty. This course may be repeated for up to 6 units of credit. Prerequisites: junior standing and consent of instructor.

## Biology (BIOL)

BIOL 110 Biological Inquiry (4)
Lecture, 3 hours. Laboratory, 3 hours. A factual and conceptual exploration of the living world through presentataion, student inquiry and laboratory exercises. Topics include the bases of life; organization of living systems, from molecules to ecosystems, and their interactions; genetics, evolution and ecology. Satisfies GE, category B2 (Biological Sciences) and the GE laboratory science requirement. Not applicable to the biology major.

## BIOL 115 Introduction to Biology (3)

Lecture, 3 hours. The unifying concepts of biology. Topics include the chemical and physical basis of life; cellular structure and function; molecular and Mendelian genetics; reproduction, development, structure and function of representative plants and animals; and evolution and ecology. Satisfies GE, category B2 (Biological Sciences). Not applicable to the biology major.

## BIOL 121 Diversity, Structure and Function (4)

Lecture, 3 hours. Laboratory, 3 hours. First in three-semester series required for biology majors. Introduces the extraordinary diversity of life and evolutionary relationships between groups of organisms, and compares body plans. For biology majors, satisfies GE, categories B2 or B3.

## BiOL 122 Genetics, Evolution and Ecology (4)

Lecture, 3 hours. Laboratory, 3 hours. Second in three-semester series required for biology majors. Introduces mechanism of inheritance, evolution, and ecology. Recent advances in understanding processes underlying ecological and evolutionary relationships will be emphasized. For biology majors, satisfies GE, categories B2 or B3. May be taken before BIOL 121.

## BiOl 123 Molecular and Cell Biology (4)

Lecture, 3 hours. Laboratory, 3 hours. Third in three-semester series required for biology majors. Introduction to cell and molecular biology, with emphasis on molecular processes, cellular physiology, and regulatory mechanisms. For biology majors, satisfies GE, categories B2 or B3. Prerequisites: BIOL 121 and 122 or consent of instructor and CHEM 115AB. Concurrent or prior enrollment in CHEM 335A recommended.

## BIOL 220 Human Anatomy (4)

Lecture, 3 hours. Laboratory, 3 hours. Survey of the body systems. Designed for pursuing careers in the allied health professions. Satisfies GE, category B3 and GE laboratory requirement. Prerequisite: BIOL 110 or 115 , or 121/122.

## BIOL 224 Human Physiology (4)

Lecture, 3 hours. Laboratory, 3 hours. An integrated examination of the human body as an efficient system maintained by a complex of interacting, homeostatic mechanisms. Includes fundamental principles of function of major organ systems. Designed for those pursuing careers in the allied health professions. Satisfies GE, category B3 and GE laboratory requirement. Prerequisites: BIOL 110 or 115, or 121/122 and CHEM 115AB or 105.

## BIOL 240 General Microbiology (4)

Lecture, 3 hours. Laboratory, 3 hours. An introduction to the organization and characteristics of microorganisms, including bacteria, fungi, protists and viruses. Topics include their role in agriculture, industry and disease processes. Prerequisites: BIOL 110 or 115, and CHEM 115AB or 105.

BiOL 240 General Microbiology (4)
Lecture, 3 hours. Laboratory, 3 hours. An introduction to the organization and characteristics of microorganisms, including bacteria, fungi, protists and viruses. Topics include their role in agriculture, industry and disease processes. Prerequisites: BIOL 110 or 115 , and CHEM 115 AB or 105.

BIOL 307 Human Nutrition (3)
Lecture, 3 hours. Concepts of modern nutrition, including some discussion of principal nutritional problems and modern food processing methods. Prerequisites: BIOL 110, 115 or BIOL 121/122 and one course in beginning chemistry.

## BIOL 308 Environmental Toxicology (3)

Lecture, 3 hours. Information needed to formulate a philosophy of chemical use: the nature of the interaction of toxicants and living organisms; categories of toxicological activity; toxicological evaluation and environmental monitoring; and governmental regulations and procedures. Satisfies GE, category B3 (specific Emphasis in Natural Sciences). Prerequisite: BIOL 110, 115 or 121/122.

## BIOL 309 Biology of Cancer (3)

Lecture, 3 hours. Biological, clinical, environmental and psychosocial aspects of cancer explored through the perspectives of medical researchers, physicians, patients and health educators. This lecture series is intended for students of all majors, for those in the health professions and for the general public. It is designed so that everyone (regardless of scientific background) will benefit. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: BIOL 110, 115 or 121/122.

BIOL 311 Sexually Transmitted Diseases (3)
Lecture, 3 hours. Biological, environmental, societal and psychosocial aspects of sexually transmitted diseases. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: BIOL 110, 115 or 121/122.

## BIOL 312 Biological Oceanography (3)

Lecture, 3 hours. An introduction to the world?s oceans with emphasis on the way in which their physical properties support life. Satisfies GE, category B3. Prerequisite: BIOL 110, 115 or 121/122.

## BIOL 314 Field Biology (4)

Lecture, 3 hours. Laboratory and field, 3 hours. A course emphasizing plant and animal communities of Northern California. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences) and GE laboratory requirement. Prerequisite: BIOL 115 or $121 / 122$.

## BiOL 315 Plants and Civilization (3)

Lecture, 3 hours. Field trips. Historical and evolutionary interrelationships between humans and domesticated plants, including the origins of agriculture and its development. Satisfies GE, category B3. Prerequisite: BIOL 110, 115 or 121/122.

## BiOL 318 Biology of Aging (3)

Lecture, 3 hours. Examines the biological processes occurring in a cumulative fashion in the course of human senescence, including the medical and social consequences. Satisfies GE, category E. Prerequisite: BIOL 110, 115 or 123.

## biol 322 Invertebrate Biology (4)

Lecture, 3 hours. Laboratory and field, 3 hours. Exploration of the systematics, functional morphology, behavior, and ecology of invertebrate animals. Prerequisite: BIOL 121 and 122.

## BIOL 323 Entomology (4)

Lecture, 3 hours. Laboratory and field, 3 hours. A comprehensive foundation in the biology of insects, with emphasis on ecology, behavior, evolution, and systematics. Emphasis on the diagnostic features of insects and their major orders. Prerequisites: BIOL 121 and 122.

## BiOL 327 Vertebrate Biology (4)

Lecture, 3 hours. Laboratory and field, 3 hours. Exploration of the systematics, behavioral ecology, biogeography, evolution, and conservation biology of fish, amphibia, reptiles, birds, and mammals. At least one weekend field trip. Prerequisites: BIOL 121 and 122.

## BiOL 328 Vertebrate Evolutionary Morphology (4)

Lecture, 3 hours. Laboratory, 3 hours. Trends in the evolution of structure and function in the vertebrates. This course focuses on morphological adaptations at the organ system level that have enabled vertebrates to diversify and succeed in a wide range of habitats and environments. Prerequisites: BIOL 121 and 122.

## BiOL 329 Plant Biology (4)

Lecture, 3 hours. Laboratory, 3 hours. An overview of plant biology, with focus on structure, function, reproduction, and evolution. Emphasis is on flowering plants, but a survey of all plant and plant-like organisms, both modern and extinct, is included. Prerequisites: BIOL 121 and 122.

## BIOL 330 Plant Taxonomy (4)

Lecture, 3 hours. Laboratory and field, 3 hours. An introduction to the principles and practices of plant taxonomy, including approaches to classification, data analysis, and a survey of vascular plant families in the California flora. A minimum of two Saturday field trips is required. Prerequisites: BIOL 121 and 122.

## BIOL 331 Aquatic Botany (4)

Lecture, 3 hours. Laboratory and field, 3 hours. An overview of the ecology, evolution, physiology, conservation and practical uses of marine, estuarine, and freshwater plants and algae. Required field trips may be scheduled outside of scheduled class time. Prerequisites: BIOL 121 and 122.

## BIOL 333 Ecology (4)

Lecture, 3 hours. Laboratory and field, 3 hours. A current overview of this field, with in-depth coverage of ecology at the population, community, and ecosystem level. Emphasis on diverse taxa and habitats, hypothesis testing, and data collection and analysis. Prerequisites: BIOL 121 and 122 and MATH 165.

## BIOL 335 Marine Ecology (4)

Lecture, 3 hours. Laboratory and field, 3 hours. An overview of current topics in marine ecology and conservation with emphasis on ecology of coastal ecosystems. Extensive focus on field and laboratory research projects. Includes experimental design, data analysis, and presentation. At least three 5-hour field trips outside of scheduled class time. Prerequisites: BIOL 121 and 122 and MATH 165.

## BIOL 337 Behavioral Ecology (4)

Lecture, 3 hours. Laboratory and field, 3 hours. Examines how the behavior of animals functions to optimize their fitness. Explores such topics as foraging, altruism, breeding systems, sexual selection, deceit, communication systems, and aggression with emphasis on techniques for formulating and testing hypotheses. Prerequisites: BIOL 121 and 122.

BiOL 338 Environmental Microbiology and Biotechnology (4) Lecture, 3 hours. Laboratory, 3 hours. Examines microbial ecology and diversity along with biotechnological applications of microbes in agriculture, wastewater treatment, bioremediation, and biofuel production. Satisfies the ENSP Hazardous Materials Management and Water Quality Technology core requirement. Prerequisites: BIOL 121/122 and CHEM 115AB, or consent of instructor.

## BIOL 339 Mycology (4)

Lecture, 2 hours. Laboratory and field, 6 hours. Principles and techniques for studying fungi and allied organisms, including the development of laboratory culture, identification and field work on terrestrial and aquatic fungi. Prerequisites: BIOL 121 and 122.

## BiOL 340 General Bacteriology (4)

Lecture, 3 hours. Laboratory, 3 hours. An introduction to prokaryotes covering their cell structure, metabolic diversity, interactions with other organisms, and pivotal roles in biogeochemical cycling. Laboratory projects develop skills essential for studies of bacteria. Laboratory in two 1.5 hour sessions per week. Prerequisites: BIOL 123 and CHEM 335A.

## BIOL 341 Evolution (4)

Lecture, 3 hours. Laboratory and field, 3 hours. A broad examination of the patterns and processes involved in the evolution of life on earth. Includes inquiry into the origin of life, microevolutionary processes, systematics, and large-scale evolutionary history. Prerequisite: BIOL 123.

## BIOL 342 Molecular Genetics (4)

Lecture, 3 hours. Laboratory, 3 hours. Gene structure and function at the level of DNA, RNA and protein interactions. Emphasis on molecular analytical techniques used for genetic analysis in a diversity of prokaryotic and eukaryotic organisms. Prerequisites: BIOL 123 and CHEM 335A.

## BiOL 343 Molecular Microbiology (4)

Lecture, 3 hours. Laboratory, 3 hours. The biochemical and molecular processes of pathogenic organisms within the four major groups of microbes: bacteria, parasites, fungi, and viruses. Prerequisites: BIOL 123 and CHEM 335A.

## BIOL 344 Cell Biology (4)

Lecture, 3 hours. Laboratory, 3 hours. An introduction to structural and molecular organization of eukaryotic cells and tissues. Specific topics will represent the central core of cell biology and are concerned mainly with those properties that are common to most eukaryotic cells. Prerequisites: BIOL 123 and CHEM 335A.

## BIOL 346 Introduction to Bioinformatics (4)

3 Lecture, 2 hours. Laboratory, 6 hours. Principles and techniques of accessing E260biomolecular databases and analyzing retrieved sequences of nucleic acids and proteins. Statistical tools, sequence alignments, pattern mapping, structural modeling, and phylogenetics will be explored. Examples will be selected from plants, animals, fungi, protists, bacteria and viruses. Laboratory will involve computer exercises, projects, discussions and student presentations. Prerequisite: BIOL 123 or consent of instructor.

## BIOL 347 Environmental Physiology (4)

Lecture, 3 hours. Laboratory, 3 hours. Course examines the adaptations and physiological responses that allow animals to live under widely different environmental conditions. Laboratory and field exercises will utilize modern techniques of physiological measurement to examine adaptive strategies among and between species in different environmental conditions. Prerequisite: BIOL 123.

## BIOL 348 Plant Physiology (4)

Lecture, 3 hours. Laboratory, 3 hours. Concepts and principles of plant function. The following areas are investigated in detail: photosynthesis, water relations, mineral nutrition, and plant growth regulation. Prerequisite: BIOL 123.

## BIOL 349 Animal Physiology (4)

Lecture, 3 hours. Laboratory, 3 hours. Principles and concepts of animal function, with emphasis on cellular and biochemical/molecular bases of physiological activities in tissues and organ systems, environmental adaptations, and comparative homeostatic mechanism. Prerequisite: BIOL 123.

## BIOL 382 Parasitology (4)

Lecture, 3 hours. Laboratory, 3 hours. The biology, epidemiology, ecology, pathogenesis, diagnosis, and prevention of parasitic diseases affecting animals and humans. Students will learn about the host-parasite relationship in the context of how social, economic, and ecological factors contribute to parasitic infections and disease. Labs involve microscopic identification of prepared and live specimens. Prerequisite: BIOL 347 or BIOL 349.

## BIOL 383 Virology (4)

Lecture, 3 hours. Discussion, 1 hour. Viruses: their characteristics, classification, genetics, and host-parasite interactions, including methods of disease prevention, control, and applications in biotechnology. Prerequisites: BIOL 123 and CHEM 335A.

## BiOL 385 Contemp Issues in Biology (3)

Lecture, 3 hours. Selected topics related to the quality of life and the search for perspectives on the future. May be repeated with different topics. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: BIOL 110, 115 or 121/122.

## BIOL 390 Biology Colloquium (1)

Lecture, 1 hour. Presentations by visiting scholars, departmental faculty, and master's degree candidates on current research and contemporary issues in biology. All majors and graduate students are encouraged to enroll each semester, although no more than 2 units are applicable to the biology major (BIOL 390) or MA degree (BIOL 590).

## BIOL 398 Non-Majors Teaching Practicum (1-3)

 Application of prior knowledge towards supervised instructional experience in biology courses. Intended for professional growth and lifelong learning for nonmajor undergraduates in biology. May be repeated for up to a total of 4 units; only graded units may apply to the biology minor, Prerequisites: prior completion of the course for which instructional assistance is to be provided, with a grade of $B$ or better, consent of the instructor, and an approved petition to enroll.
## BIOL 426 Neurobiology and Neural Networks (4)

 Lecture, 2 hours. Laboratory, 3 hours. Theoretical and experimental approach to studying basic concepts of electrophysiology, neuronal electrical activity and neuronal circuitry in invertebrate and vertebrate animals. Lab exercises include E420studies of neuronal networks in crayfish, horseshoe crabs, and sea hares. Prerequisites: BIOL 115 or BIOL 121/122 and PHYS 210B or PHYS 214; or consent of instructor.
## BIOL 460 Ichthyology (4)

Lecture, 3 hours. Laboratory and field, 3 hours. At least one weekend field trip. Morphology, classification, distribution, ecology, and evolutionary history of fishes. Prerequisite: BIOL 327 or 328.

## BIOL 463 Herpetology (4)

Lecture, 3 hours. Laboratory and field, 3 hours. Classification, functional and evolutionary morphology, environmental physiology, and ecology of reptiles and am-
phibians. Includes at least one weekend field trip. Prerequisite: BIOL 327 or 328.

## BIOL 465 Ornithology (4)

Lecture, 2 hours. Laboratory and field, 6 hours. Avian classification, anatomy and life histories, including such topics as molts, distribution, migration and breeding habits. Prerequisite: BIOL 327 or 328.

## BIOL 468 Mammalogy (4)

Lecture, 3 hours. Laboratory and field, 3 hours. Characteristics, classification, physiological ecology, habitats, behavior, reproduction, distribution and evolution of mammals. Prerequisite: BIOL 327 or 328.

## BiOL 472 Developmental Biology (4)

Lecture, 3 hours. Laboratory, 3 hours. Patterns of animal development. This course is designed to provide students with a comprehensive appreciation of the developmental process, presenting detailed descriptions of developmental mechanism along with a conceptual framework for understanding how development occurs. Prerequisite: BIOL 342, 343, 344, or 383.

## BIOL 480 Immunology (4)

Lecture, 3 hours. Laboratory, 3 hours. The component elements of the immune response; antigens and antibodies; theories of antibody synthesis, cellular reactions, hypersensitivity; immunogenetics. Prerequisites: one core course from each of the following U.D. core areas: Physiology, Molecular and Cell Biology.

## BiOL 481 Medical Microbiology (5)

Lecture, 3 hours. Laboratory, 6 hours. Mechanisms of infectious diseases caused by bacteria and fungi, host-parasite interactions in the disease process, therapeutic modalities and infection control. Laboratory techniques for the cultivation, isolation, and identification of pathogenic bacteria and fungi. Emphasis is on methods and procedures currently utilized in diagnostic laboratories. Prerequisite: BIOL 343 or BIOL 340.

## BIOL 484 Hematology (4)

Lecture, 3 hours. Laboratory, 3 hours. Blood: the normal and abnormal structure and function of red cells, white cells, and hemostatic mechanisms. Prerequisite: BIOL 347 or BIOL 349.

## BIOL 485 Biometry (4)

Lecture, 3 hours. Laboratory, 3 hours. Introduces students to quantitative analysis of biological data. The nature of biological data, principles of experimental design, and essential statistical tools used by biologists to analyze their results. Examples used in the course will be drawn from physiology, ecology, evolution, and medicine. Laboratory sections will involve computer exercises, discussions, and student presentations. Prerequisites: BIOL 123 and MATH 165.

## BIOL 491 Library and Information Researchs: Natural

 Sciences (2)Techniques for finding library and information resources in the life sciences. Course covers use and evaluation of print and electronic information sources, including online and Internet databases, research strategies and techniques, compiling and preparing bibliographies, scientific writing form and style, and organization of personal reference files. Prerequisite: at least one biology course or consent of instructor.

## BiOL 494 Independent Research Design (1)

Directed study under guidance of a faculty mentor to design a research project in biology through readings in primary literature and application of information from relevant upper-division course work. Prerequisites: cumulative GPA of 2.5 , upperdivision standing in biology, consent of instructor, and approved petition to enroll.

## BIOL 495 Special Studies (1-4)

Investigations to meet an advanced specialized study need beyond the department curriculum. The project should be planned and described in written form with consent of the faculty sponsor. Prerequisites: a major or minor in biology with an upper-division standing; consent of instructor and department chair, and approved petition to enroll.

## BIOL 496 Senior Research (2)

Experimental or observational research for the B.S. Degree conducted under the guidance of one or more of the biology faculty. A written report and an oral presentation of results in a public forum are required. Prerequisites: BIOL 494, senior standing in the major.

## BIOL 497 Selected Topics (1-4)

Intensive study of biological topics, which will vary from semester to semester. May be repeated for credit and may be applicable to the requirements for a major in biology. Prerequisite: consent of instructor.

## BiOL 498 Biology Practicum (1-4)

Application of previously studied theory through supervised instructional work experience in biology. Intended for professional growth for undergraduates. Enrollees are required to write an evaluation of their course experience. May be repeated for up to a total of 4 units. Prerequisites: upper-division standing in biology, consent of the instructor in whose course the student will be working, and an approved petition to enroll.

## BiOL 499 Internship in Biology (1-4)

Work that provides training in the use of biological skills in the community. Requires written agreement by students, faculty sponsor, on-the-job supervisor and field experience coordinators; please see department office for details. May be repeated for up to 8 units of credit; 3 hours per week for each unit. Cr/NC grading only.

## BIOL 500 S Graduate Seminar (1-2)

Advanced seminars exploring diverse topics in biological sciences. Topics vary from semester to semester, depending on faculty interest and expertise. This course may be repeated for credit.

## BIOL 510 Selected Topics in Biology (2-4)

Intensive study of biological topics, which will vary from semester to semester. Prerequisites: adequate undergraduate preparation in the topic under consideration and graduate or last-semester-senior standing with consent of instructor.

## BIOL 511 Conservation Genetics (2)

Lecture, 1 hour. Discussion, 1 hour. An examination of the scientific approaches applied to species conservation. Although molecular genetic approaches will be emphasized, a variety of other approaches will also be considered (e.g. captive breeding, population viability analysis, and translocation). Prerequisite: consent of instructor.

## BIOL 512 Conservation Ecology (2)

Lecture, 1 hour. Discussion, 1 hour. A seminar format with occasional lectures. An advanced exploration of current topics in the rapidly expanding field of conservation ecology. Specific topics considered will vary from semester to semester, depending on student interests. However, topics will commonly include habitat fragmentation and loss, global climate change, metapopulation dynamics, biological invasions, restoration ecology, and design and management of preserves.
Prerequisite: BIOL 300.

## bIOL 513 Speciation (2)

Lecture, 1 hour. Discussion, 1 hour. Examination of the theoretical and empirical approaches to defining species and a detailed survey of speciation modes and mechanisms. Lectures provide a framework for student led discussion of specific topics and case studies. Prerequisite: consent of instructor.

## BIOL 515 Macroevolution (2)

Lecture, 1 hour. Discussion, 1 hour. A seminar format with occasional lectures. A topical and historical overview of the major macroevolutionary transitions that have occurred during the history of life. Particular attention will be given to broad patterns of change over time at higher levels of structural/organismic organization. Prerequisite: consent of instructor.

## BIOL 516 Bioenergetics (2)

Lecture, 1 hour. Discussion, 1 hour. A seminar format with occasional lectures. An in-depth examination of energy flow through living organisms at all levels of biological organization, from molecules to populations. Topics may include cellular metabolism, animal energetics, thermoregulation, fasting physiology, locomotion, foraging energetics, reproductive energetics, life history theory, community energetics and population energetics. Prerequisite: consent of instructor.

## BIOL 517 Paradigms in Parasitology (2)

Lecture, 1 hour. Discussion, 1 hour. A seminar format with occasional lectures. Parasitology is a subject area that crosses many biological disciplines, and concepts in parasitology can be applied to any field of science. Students may choose topics that most closely relate to their research interests. Topics may include: ecology of emerging infectious diseases, how parasites affect their host?s behavior, co-evolution of host-parasite associations, RNA editing, and how parasites evade the immune system. Prerequisite: consent of instructor; parasitology background not required.

## BIOL 518 Biotechnology (2)

Lecture, 1 hour. Discussion, 1 hour. A seminar format with occasional lectures. The field of biotechnology is moving at a rapid pace, and many of the molecular and biochemical techniques are being applied to a wide variety of biological disciplines. Topics include: Structure-based approach to drug design, expressing recombinant proteins, DNA vaccines, and toxicity screening. Prerequisite: consent of instructor.

## BiOL 544 Advanced Cell Biology (4)

Development and applications of major concepts in modern cell biology. Specific topics will include membrane structure and properties, metabolic pathways and physiology of energy conversion, cell signaling and principles of intercellular communication, cell-cycle dynamics and macromolecular regulation of cell division. Prerequisites: BIOL 344, and BIOL 348 or 349.

BIOL 545 Recombinant DNA Lab (4)
Laboratory, 9 hours. Discussion, 1 hour. Techniques for the manipulation of DNA through gene cloning applicable in the study of all biological processes. Prerequisites: BIOL 342 or 344 and either BIOL 340 or CHEM 445.

## BIOL 578 Project Continuation (1-3)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. $\mathrm{Cr} /$ NC only.

## BiOL 590 Biology Colloquium (1)

Lecture, 1 hour. A series of lectures by faculty, master's degree candidates and invited guests on current research and contemporary issues in biology. All graduate students are encouraged to enroll each semester, although no more than 2 units are applicable to the MS degree. Cr/NC only.

BiOL 595 Special Studies in Biology (1-3) Investigations to meet highly specialized needs and to explore possible thesis topics. Project should be planned and described in writing with consent of faculty sponsor. Prerequisite: approved petition to enroll.

BIOL 598 Graduate Practicum (1-4)
Application of previously studied theory to development and delivery of new instructional materials. Intended to provide professional growth for graduate students. Enrollees are required to write an evaluation of their course experience. Prerequisites: graduate standing in biology, consent of the instructor in whose course the student will be working, and an approved petition to enroll.

## BIOL 599 M.S. Thesis (1-3)

Original investigation based on laboratory or field research that meets the department and university standards. Prerequisite: admission to classified standing and advancement to candidacy.

## Business Administration (BUS)

BUS 150 Business and Society (3)
A survey of the major fields of management, designed to introduce students to the range of perspectives available in the discipline. Topics will include: accounting, finance, general management, health care management, human resources management, industrial relations, marketing, multinational management, organizational behavior, and systems analysis.

## BUS 211 Business Statistics (4)

Topics include collection and presentation of data, discrete and continuous distributions, probability and sampling theory, statistical inference and hypothesis testing. Parametric and nonparametric statistical tests will be examined, including t-tests, Chi-square, and ANOVA. Additional topics include Regression, time series analysis and applications in business forecasting. Prerequisite: computer competency and pre-business math requirement.

## BUS 219 E/U Computing Tools for Bus (3)

A laboratory-intensive course in which students gain a working knowledge of personal and mainframe computer operating systems as well as popular business applications such as spreadsheets and databases.

BUS 225 Legal Environment of Business (4) A study of the legal and ethical framework within which management decisions are made. The course emphasizes the sources, functions and processes of law. It surveys a number of areas, including negligence, contracts, product liability and constitutional law, and reviews government regulations in the areas of consumer protection, antitrust, labor and employment law.

## BUS 230A Financial Accounting (4)

A foundation course designed to provide a basic understanding of the theory and practice of accounting, with emphasis upon basic principles, concepts and controls in relation to external reporting. Prerequisite: computer competency .

## BUS 230B Managerial Accounting (4)

A foundation course designed to provide a basic understanding of the theory and practice of accounting, with emphasis upon basic principles, concepts and controls in relation to internal reporting. Prerequisite: BUS 230A.

BUS 232 Introduction to the Accounting Cycle (1)
An introduction to computer accounting applications, including forecasting, database management, and financial statement preparation using a spreadsheet program. Prerequisites: BUS 230A and 230B. Cr/NC only.

## BUS 270 Personal Financial Planning (3)

This course provides comprehensive coverage of personal financial planning in the areas of money management, career planning, taxes, consumer credit, housing and other consumer decisions, legal protection, insurance, investments, retirements, retirement planning, and estate planning. This course may not be used in the business major.

BUS 292 Library and Information Research: Business (1-3) Designed to teach business information research skills: Students will learn how to assess information, how to construct effective search skills, how to construct effective search strategies, how to find and retrieve information, and how to critically evaluate sources. Includes on-line research practice. Electronic and print sources for business research will be covered. Recommended for juniors who have completed most or all of the pre-business program. $\mathrm{Cr} / \mathrm{NC}$.

## BUS 295 Work Experience (2-4)

Developed for students seeking an internship like experience but lacking the requisite academic experience for BUS 499, Internship. Cr/NC.

## BUS 296 Instructor Initiated Research Project (1-4)

This course is designed to provide students the opportunity to participate in faculty sponsored research or study projects. It permits the student to pursue an area of interest that $\mathrm{s} / \mathrm{he}$ would like to develop in close consultation with a faculty member. Cr/NC only.

## BUS 305W Introduction to Wine Business (4)

An introduction to wine business principles and strategies applicable to the growing of grapes and the making, distribution, and marketing of wine. Additional topics include organizational, human resource, family business and financial management, government regulation and social responsibility. For students not familiar with wine industry terminology, BUS 305W is recommended prior to enrollment in wine concentration or wine focus classes.

## BUS 316 Production Operations Mgt (4)

Production/operations management of manufacturing and service operations. Topics include analysis and decision techniques in the location, design, and layout of facilities and processes; work design and work measurement; line balancing; forecasting and scheduling; material requirements planning and quality assurance. Inventory control, linear programming, project management and queuing models and simulations are also examined. Prerequisites: computer competency and BUS 211.

## BUS 319 Introduction to MIS (4)

Study of characteristics of computer-based information systems in organizations. Topics include MIS theory, concepts and issues; systems, analysis and design; database design using the relational database model; data communications and LAN; and specific implementation in areas of manufacturing, accounting, finance, human resources and marketing. Prerequisite: computer competency.

## BUS 330A Intermediate Accounting (4)

Current theory of accounting. Topics include the accounting process, design of financial statements, valuation of cash, receivables, inventories, plant and equipment, intangible assets and current liabilities. Concepts such as present value, LIFO and like-kind exchanges are covered. Prerequisites: BUS 230A and 230B.

## BUS 330B Intermediate Accounting (4)

Current theory of accounting. Topics include the design of the statement of changes in financial position, valuation of capital stock and retained earnings. Other special topics will include earnings per share computation, current cost and constant dollar accounting, liability, leases, pension plans and price level accounting. Prerequisites: BUS 230A, 230B and 330A.

## BUS 334 Accounting Info Systems (4)

This course will present a thorough introduction to basic information systems theory, provide a working knowledge of systems analysis and design techniques, and introduce several fundamental accounting information flow patterns. In addition, it will examine the need for adequate systems controls, risks inherent in the controls, and refined systems output to support management decision-making processes. Prerequisite: computer competency, BUS 230A and 230B.

BUS 336W Wine Industry Accounting and Tax (4)
This course incorporates current accounting theory within the following wine related areas: vineyard development, transfer pricing, long-term contracts, deferred income recognition, cost accounting, profit planning, net realizable value, inventory costing methods, cash flow projections, capital budgeting, leasing, construction, foreign currency translation and, throughout the various topics, corresponding income tax considerations. Prerequisites: BUS 230A and 230B.

BUS 340 Survey of Human Resource Management (4)
Comprehensive introduction to the management of human resources. Topics include assessing human resource needs, job analysis, recruitment and selection, orientation and training, performance evaluation, compensation and benefits, safety and health, career development, labor relations and government regulation. Prerequisites: BUS 211 and 225.

## BUS 340W Survey of Human Resource Mgmt/Wine (4)

Survey of Human Resource Management/Wine examines the same subject matter as BUS 340 Survey of Human Resource Management. However the focus of BUS 340 W is on the practice of human resource management in the wine industry and special issues encountered within that industry. There are frequent guest appearances by human resource professionals working in the wine industry. Credit may not be received for both BUS 340 and BUS 340W. Prerequisite: BUS 211 and BUS 225.

## BUS 344 Organizational Behavior (4)

The role of the individual and of groups in the organization is examined. Attention is directed to individual level characteristics such as learning and personality, to processes that affect attitudes, perceptions and judgment, to applied theories of motivation, and to career development and stress. Topics include group formation, development, structure, leadership and dynamics as well as the processes of communication, decision making, power and conflict.

## BUS 350 Management (4)

A management survey course will provide students with a framework for understanding the focus, function and relevance of specific disciplines in business administration. The course will illustrate the integrative nature of business organizations, exemplifying the interdependence of functional areas in pursuing organizational goals. Prerequisite: BUS 225.

## BUS 352 Organizational Theory (4)

Course examines the evolution of theories of organization and management and focuses on the effects of structural and contextual dimensions in organization structures. Emphasis is on the strategic implications of organization design and on the structural mechanisms available to facilitate organization goals. The effects of organizational change, control, culture, decision making and conflict on structure are also considered. Prerequisite: BUS 350.

## BUS 354 Applied Business Analysis (4)

The course will focus on defining operational and tactical business problems, goals and decision factors in quantitative terms. Emphasis is on structuring problem situations and on 1) determining appropriate requisite factors related to the problem, 2) quantifying those factors, and 3) choosing the appropriate quantitative decision-making techniques to arrive at an optimal solution. Primary consideration is given to the appropriate identification of problems and goals, generally through case studies, and to the effective choice and operationalization of decision making techniques, generally through a project. Prerequisite: BUS 319 or BUS 334.

BUS 360 Introduction to Marketing (4)
Introduction to terminology and basic concepts, including product development; pricing; promotion and distribution of goods, services, and ideas. Emphasis is on consumer orientation and managing the marketing function within an uncertain environment. Marketing information systems and other marketing foundations are applied to the consumer. Prerequisites: BUS 211, 230A and 230B.

## BUS 366 Retail Management (4)

Studies business activities that involve the sales of goods and services in the marketplace including retail institutions, merchandising, site selection, market information, and retail strategy and planning. Prerequisite: BUS 360.

## BUS 367 Consumer Behavior (4)

Analysis of the cultural, social and psychological factors that influence the consumer's decision-making processes, including learning, perception, information search and information processing, personality, lifestyle, motivation and attitudes. Prerequisite: BUS 360.

## BUS 368 International Marketing (4)

Examines the marketing practices and customs, and the cultural, social, legal and ethical differences, of international markets. Emphasis on developing and adjusting the marketing mix of product, price, promotion and distribution to compete in international settings. Prerequisite: BUS 360.

## BUS 370 Introduction Managerial Finance (4)

An introduction to the conceptual and analytical framework guiding financial decision making within the business firm. Emphasis is placed on financial analysis, the evaluation of investment opportunities available to the firm, working capital management, and the analysis of alternative means of financing the firm. Prerequisite: BUS 230A and 230B.

## BUS 377 Financial Institutions and Markets (4)

Study of the structure and functions of the financial system in the U.S. economy. Topics include the role of financial intermediaries (including commercial banks), the money market, sources and uses of long-term funds, interest rates and security prices, the role of the Federal Reserve, monetary policy, international capital markets.

## BUS 385 Special Topics in Business Administration (1-4)

This course provides for the teaching of special topics in business administration. Consult your advisor regarding application to your concentration.

## BUS 388 Seminar in Peer Advising (2)

Seminar and practicum in peer advising within the context of higher education. Topics will include general education, major and university degree requirements, the diversity of students' needs as well as the campus services and resources designed to meet them, and interpersonal communication skills needed for academic advising. Cr/NC only. May be repeated once for credit.

## BUS 391 Cross Cultural Communication and Negotiation (4)

 The course provides students with techniques for becoming skillful cross-cultural communicators and negotiators. Topics include dimensions of culture and their implications in organizations, successful international business negotiation tactics, managing cultural diversity in the workplace.
## BUS 393 Introduction to International Business (4)

A survey of theoretical and institutional aspects of international trade and investment. The course will address topics including international trade theory, the international money market, balance of payments, international sourcing and management of international enterprises.

## BUS 394 International Business Strategy (4)

This course will focus on understanding the political, economic, sociocultural and environmental factors affecting the development of options and strategies. Students gain appreciation of different forms of foreign involvement and which types are appropriate in view of national interests of host nations. Topics include the multinational corporation, exporting, importing, socioeconomic development, international economic order, changing U.S. role in the international economy, and management styles in different cultures. Case studies will be analyzed. Prerequisite: BUS 391 or 393.

## BUS 396W The Global Wine Industry (4)

This survey course provides an overview of the global wine industry. Topics include the analysis of global trends affecting wineries, the nature of international competition, the importing and exporting of wine, joint ventures and acquisitions in the wine industry involving partners from different countries. The course will discuss both consumption and production of wine around the world, with special emphasis placed on the impact of emerging new world wine producers. Because a two-week overseas field trip is a part of this course, it will be offered only during intersession or between semester breaks. Prerequisite: BUS 360.

## BUS 397W Global Marketplace for Wine (4)

The course provides an in-depth look at the global trends affecting the wine industry. Topics include the changes taking place in wine consumption in both established and emerging wine markets. The role played by imported wine in key markets will be discussed. Industry dynamics will be analyzed with a focus on the export strategy of wine firms and wine producing nations, the formation of joint ventures with international partners and the potential for investment in foreign firms and vineyards. Topics related to the workings of the bulk market for wine will also be presented. Prerequisites: BUS 305W and BUS 360.

## BUS 399A Advanced Work Experience in Accounting (3-4)

Designed for upper-division students in business administration with a concentration in accounting who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the studentis faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

## BUS 399F Advanced Work Experience in Finance (3-4)

Designed for upper-division students in business administration with a concentration in finance who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the studenṫंs faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. $\mathrm{Cr} / \mathrm{NC}$ only.

## BUS 399FM Advanced Work Experience in Financial Management (3-4)

Designed for upper-division students in business administration with a concentration in financial management who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the studentis faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

## BUS 399MG Advanced Work Experience in Management (3-4)

Designed for upper-division students in business administration with a concentration in management who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the studentis faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

## BUS 399MK Advanced Work Experience in Marketing (3-4)

Designed for upper-division students in business administration with a concentration in marketing who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the studentics faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

## BUS 399W Advanced Work Experience in Wine Business

 Strategies (3-4)Designed for upper-division students in business administration with a concentration in wine business strategies who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the studentis faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

## BUS 417 Management of Services (4)

The study of effective techniques and strategies applicable to the successful management of a service-based organization, The course provides the student valuable perspectives by contrasting different types of major service businesses. Students are expected to be able to apply basic quantitative tools to solve service management problems. Prerequisite: BUS 316.

## BUS 420 Business Data Communications (4)

A lecture, literature and case study-oriented survey course on the use of local and wide-area data communications in the business enterprise. Topics include LAN, WAN, EDI wide-band multimedia, distributed systems, and evolving system architectures and their impact on business organizations. Prerequisite: BUS 319 or BUS 334.

## BUS 422 Business Data Models (4)

Lecture, laboratory, 2 hours. A course in designing relational databases. The entityrelationship model is used to develop the conceptual data structure from which a normalized set of tables is extracted and implemented.

## BUS 422W Business Data Models (4)

Lecture, laboratory, 2 hours. A course in designing relational databases in the wine industry. Prerequisite: BUS 319 or BUS 334.

## BUS 430 Advanced Accounting (4)

Advanced accounting, problems and theory. Topics include consolidations, business combinations, fund accounting, partnerships, foreign exchange and other current issues. Prerequisites: BUS 330 A and 330 B , or consent of instructor.

## BUS 433A Individual Taxation (4)

Analysis of the Internal Revenue Code pertaining to individual and corporate income taxes. Topics include determination of taxable income, deductions and exemptions, accounting records, returns, computation of taxes and tax planning. Subject matter to reflect the most recent tax law changes. Prerequisites: BUS 330A (may be taken concurrently).

## BUS 433B Corporation and Estate Taxation (4)

Concepts and principles of federal taxation as they apply to business enterprise and fiduciaries, such as estates and trusts. Prerequisite: BUS 433A.

## BUS 434 Auditing (4)

Study of generally accepted auditing standards and procedures followed in the examination of financial statements and operating control reviews. Topics include evaluation and analysis of internal control, nature of and procedures for gathering audit evidence, professional ethics and legal liability, the standards of reporting financial information, and statistical sampling applications. Prerequisites: BUS 330A, 330B and BUS 334.

## BUS 435 Cost Accounting (4)

To introduce applications for the accountant's role in the decision-making process. Topics include contribution margin analysis, job-order and process costing, standard costing, transfer pricing, profit planning, cost centers, cost volume, profit relationships, inventory control and other current issues. Prerequisites: BUS 230B, 330A (330A may be taken concurrently).

## BUS 436 Business Law (4)

A study of areas of law of particular importance to business, including contracts, sales, negotiable instruments, secured transactions, agency, partnerships and corporations. Prerequisite: BUS 225.

## BUS 437 Governmental Accounting (4)

Course deals with intricacies and peculiarities of fund accounting as it relates to governmental units, including preparing and recording the budget, the use of the encumbrances accounting, and the year-end closing of the budgetary accounts. Students will be exposed to GASB (Government Accounting Standards Board)( standards, governmental financial statement requirements, and learn the different objectives and purposes of financial statements for non-profit vs. profit entities. Prerequisite: BUS 330A.

## BUS 441 Recruitment, Selection and Performance Appraisal (4)

 Fundamental issues dealing with the staffing of organizations and evaluating individual performance are covered. Topics receiving attention include legal issues, fundamentals of measurement, incorporating job analysis results into the selection process, and design of selection processes and procedures. Issues of performance appraisal will be examined. Common methods and pros and cons of each will be explored. Prerequisite: BUS 340 .
## BUS 442 Training and Development (4)

Theory and practice of training for developing the human resources in the organization. Topics include adult learning theory and research, methods of assessing training needs and learning styles, design of effective training experiences, presentation skills, and evaluation methods. Prerequisite: BUS 340.

## BUS 446 Government Regulation and Human Resources (4)

An examination of current legislation and executive orders affecting the human resource function. Laws, orders, guidelines and regulations will be examined within the framework of the regulatory model, which presents an integrated framework for understanding the relation of societal problems, laws, agencies, guidelines, the courts and management responses. Prerequisite: BUS 340.

## BUS 447 Labor Management Relations (4)

A study of modern labor-management relations. Topics include the factors favoring the growth of labor organizations, the historical development of labor movements, labor economics and the labor movement, collective bargaining and the modern legal framework of organized labor, conflict resolution through grievance/arbitration, and other relevant labor topics. Prerequisite: BUS 340.

BUS 451 Entrepreneurship / Small Business Management (4)
Intended for prospective entrepreneurs wishing to start a new business and/ or participate in the management of a small, ongoing company during its early months. Also appropriate for students interested in consulting, banking or investing in small companies. Emphasis on the preparation of realistic, action-oriented business plans necessary for presentations in organizing and financing. Prerequisite: BUS 360 or consent of the instructor.

## BUS 452 Leadership (4)

The focus of this course is a comprehensive review of the writings and theories of leadership. Students will evaluate leadership traits and behavior, the effects of reciprocal influence, transformational leadership, the role of power versus authority, followship and related matters. Applications of theory to practice will be emphasized. Prerequisites: BUS 344 and BUS 350.

## BUS 453 Small Business Analysis (4)

This course focuses on decision making in functional areas of marketing, production and finance. Students, working in teams with faculty and professional supervision, consult with businesses to solve managerial problems. Prerequisites: BUS 360 or consent of the instructor.

## BUS 455 Alternative Dispute Resolution (4)

This course will provide students with an understanding of the alternatives to litigation as a means of dispute resolution. The primary focus will be on two alternatives, mediation and arbitration. The first half of the course will focus on the mediation process and the basic problem solving skills that are a fundamental component of successful mediation. The second half of the course will emphasize the types of voluntary arbitration and the means to implement the process. Prerequisite: BUS 340.

BUS 458 Organization Change and Development (4)
Scholarly and practical study of how to implement effective change within organizations, such as re-organizing departments and business units, IT implementation, mergers and acquisitions, culture change, and other change events that impact organizations. Topics include: organizational change theory, processes, and models; the role of change agents; organizational diagnosis and intervention; culture, process, strategy, structure, and technology changes in organizations. Prerequisite: BUS 344.

## BUS 461 Promotion Management (4)

Examines the planning, execution and measurement of the organization's external communications with its environment. Analyzes the four promotion tools: advertising, personal selling, sales promotion and public relations. Prerequisite: BUS 360.

## BUS 462 Marketing Research (4)

The theory and application of marketing research as a tool for management decision making. Emphasis is on problem identification and definition, research design, sampling procedure, primary and secondary data collection, statistical analysis, interpretation of data, and reporting of research findings. Prerequisites: BUS 211 (or ECON 317 or MATH 165), BUS 367 and BUS 319.

## BUS 463 Sales Management and Personal Selling (4)

Examines theory and practice in the principles and art of selling. Studies planning, organizing, leading, evaluating, and controlling of sales force activities. Prerequisite: BUS 360.

BUS 464W Production, Operations and Distribution (Wine) (4) The study of effective operations management techniques and strategies from the perspective of the California wine industry. The course emphasizes the basic concepts of purchasing, operations, logistics, and supply chain management as they apply to the wine industry. More specific topics include value analysis, total quality management, make/buy decisions, negotiation, and supplier development. Prerequisite: BUS 316.

## BUS 465W Wine Marketing (4)

An in-depth study of marketing from the perspective of the California wine industry. The course emphasizes wine marketing planning, including an analysis of wine consumer segments. The wine industry's economic, legal, social and competitive environment, industry trends, major problems and opportunities, and strategic alternatives as related to wine varieties and brands, pricing, promotion and distribution. Prerequisite: BUS 305W, BUS 360 and junior standing.

## buS 466 Organizational Communication (4)

This course teaches communication theory and skills as they are applied to management situations. Students will study the impact of the organizational environment on the practice of communication theory and the development of strategies for effectively relaying messages. Written and oral exercises will be stressed. Prerequisite: must have passed the WEPT.

## BUS 467W Wine E-Commerce and Direct Sales (4)

An in-depth study of electronic commerce aspects from the perspective of the California wine industry. Topics include opportunities and challenges associated with electronic commerce (e-commerce/e-business), and impacts of e-commerce with meeting strategic objectives of an organization in the wine industry. The course includes topics on database management, direct-to-consumer and government oversight/compliance issues, wine club management, and winery management software as they apply to the wine industry. Prerequisite: BUS 319.

## BUS 468 Marketing Decision Making (4)

Data analysis and "what if" marketing decision making, using computer models and computer simulation. Emphasizes developing computer and analytical marketing skills. Prerequisites: BUS 360 and 367 (BUS 367 may be taken concurrently).

## BUS 469 Marketing Management (4)

Advanced study of marketing management, strategy and decision making through the use of marketing cases. Requires the integration of marketing concepts and theories from previous marketing course work. Prerequisites: BUS 360 and 367.

## BUS 470 Managerial Finance (4)

Theory of managerial decision making in its financial and economic context. Topics include the decision-making environment, financial planning, budgeting and control, long-term investment decisions and capital budgeting techniques, working capital management, the cost of capital, valuation, rates of return, and choosing among alternative sources of funds. Prerequisite: BUS 370.

## BUS 471 Financial Planning and Strategy (4)

The application of financial concepts and analytical methods to the development and evaluation of alternative financial strategies and opportunities available to the firm. Emphasis is placed on financial decision-making and analysis of the small and mid-size firms. Prerequisite: BUS 470.

## BUS 472 Investments (4)

A study of the characteristics of securities: valuation, sources, selection strategies and theory of portfolio management. Stocks, bonds, options and futures markets will be included. A major term project is required. Prerequisite: BUS 370.

## BUS 473 International Finance (4)

The foundations of financial theory (capital budgeting, capital markets, EMH/ CAPM/portfolio theory, capital structure, short term financing) are set in an international/MNC context where currency exchange rates, differences in accounting procedures, international trade, political risk, investments and financing are examined. Prerequisite: BUS 370.

## BUS 474 Computer Applications in Finance (4)

A course in financial modeling, analysis and research using computers. Emphasis is placed on the development of models required for the evaluation of financial alternatives. Prerequisite: BUS 370.

## BUS 475W Wine Accounting and Finance (4)

This course focuses on financing, investing and accounting decisions facing managers of wine businesses. It explores the financial reporting issues that are unique to wine businesses and how these issues affect valuation. This course is directed to those interested in careers in accounting and finance as well as those interested in understanding relevant accounting and finance issues for wine business. Prerequisite: BUS 370.

## BUS 475W Wine Accounting and Finance (4)

This course focuses on financing, investing and accounting decisions facing managers of wine businesses. It explores the financial reporting issues that are unique to wine businesses and how these issues affect valuation. This course is directed to those interested in careers in accounting and finance as well as those interested in understanding relevant accounting and finance issues for wine business. Prerequisite: BUS 370.

## BUS 476 Risk Management and Insurance (4)

The course focuses on identifying and evaluating risk exposures for individuals and firms. Insurance products or financial products can mitigate the effects of risk related losses, and this course introduces students to a range of insurance products sold or used in financial markets. Additionally, the course provides an integrated approach to present the area of Enterprise Risk Management (ERM), which analyses traditional pure risks together with financial risks as a part of overall risk management of the firm. Prerequisites: BUS 370 or permission of the instructor.

## BUS 491 Seminar in Management Strategy and Policy (4)

Seminar covering current issues in managerial strategy and corporate policy that integrates concepts of organization theory and behavior, marketing, finance, human resources, production/operations, information systems, entrepreneurship, accounting, economics, and international business. This is the capstone for the business administration major and would be expected to be taken in the last semester prior to graduation. Prerequisites: all business core requirements, a passing score on the WEPT, and application for award of degree.

## BUS 491W Seminar in Management Strategy and Policy in the Wine Industry (4)

Seminar covering current issues in managerial strategy and corporate policy that integrates concepts of organization theory and behavior, marketing, finance, human resources, production/operations, information systems in the wine industry, entrepreneurship, accounting, economics, and international business in the wine industry. This is the capstone for the business administration major and sould be taken in the last semester prior to graduation. Prerequisites: all business core requirements, a passing score on the WEPT, and application for award of degree.

## BUS 495 Special Studies (1-4)

Student-designed and instructor-guided projects, to be arranged individually. May be repeated once for credit. Independent study credit will be granted only to students who have: 1) attained senior status, 2) minimum GPA in business administration of 3.0 , and 3) substantial background in the field involved in the petitioned study. A maximum of 4 units are applicable to the business administration major.

## BUS 499 Internship in Business (3-4)

Field experience in management and administration. For upper-division students in fields of their career or academic interest. Minimum of three hours per week per semester unit. Four units maximum are applicable to the business administration major. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. Prerequisite: prior arrangement with internship coordinator.

## BUS 499A Internship in Accounting (3-4)

Field experience, for upper division students, in management and administration with an emphasis in accounting. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and Bus 499A may not be used as a concentration elective. GPA of 2.0 is required in major plus two courses in the field of concentration. $\mathrm{Cr} / \mathrm{NC}$ only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

## BUS 499F Internship in Finance (3-4)

Field experience, for upper division students, in management and administration with an emphasis in finance. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and only one in any single concentration. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

## BUS 499FM Internship in Financial Management (3-4)

Field experience, for upper division students, in management and administration with an emphasis in financial management. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and only one in any single concentration. GPA of 2.0 is required in major plus two courses in the field of concentration. $\mathrm{Cr} / \mathrm{NC}$ only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

## BUS 499MG Internship in Management (3-4)

Field experience, for upper division students, in management and administration with an emphasis in management. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and only one in any single concentration. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

## BUS 499MK Internship in Marketing (3-4)

Field experience, for upper division students, in management and administration with an emphasis in marketing. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and only one in any single concentration. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

## BUS 499W Internship in Wine Business Strategies (3-4)

Field experience, for upper division students, in management and administration with an emphasis in wine business strategies. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and only one in any single concentration. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

## BUS 501 Principles of Accounting (3)

A foundation course designed to provide a basic understanding of the theory and practice of accounting with emphasis upon basic principles, concepts and controls in relation to external and internal reporting. Prerequisites: computer competency and a bachelor's degree.

## BUS 504 Human Resource Management and Organizational

 Behavior (4)Topics from HRM will include equal employment opportunity/affirmative action, staffing, performance evaluation, job design, compensation administration, safety and health, employee rights and discipline, and labor relations. Behavioral topics will include individual and group behavior, motivation, decision making, leadership, organization development and culture. Project requires analysis and synthesis of relevant topics. Prerequisite: a B.A. or B.S. degree.

## BUS 506 Market Analysis (3)

The terminology and concepts of marketing including segmentation, product development, pricing, promotion and distribution. A marketing plan, case or similar application project is required. Prerequisite: a B.A. or B.S. degree.

## BUS 507 Foundations of Managerial Finance (3)

A foundation course designed to provide the conceptual and analytic framework guiding financial decision-making within the business firm. Emphasis is on financial analysis, the evaluation of investment opportunities, working capital management, and alternative means of financing the firm. Prerequisite: BUS 501.

BUS 508 Managerial Statistics and Their Application (3)
Statistical data analysis with an emphasis on problems from manufacturing and service operations and their solution using Excel. Instruction will include spreadsheet analysis and a project involving the application of statistical methods. Prerequisite: a B.A. or B.S. degree.

## BUS 516 Operations Management (3)

Production/operations management of manufacturing and service operations. Topics include forecasting and scheduling; material requirements planning and quality assurance. Additional tools include inventory control, project management, and product development. Modern techniques such as Supply Chain Management, e-business, Just-in-Time and Total Quality Management are illuminated.

## bUS 519 Management Information Systems (3)

Study of fundamental role information systems and technologies play in organizations and management issues they raise. Topics include IS/IT'S strategic importance; technology, legislative, and industry trends; systems development issues and practices; project management; database design and management; management of IS/IT assets.

## BUS 530 Financial Statement Analysis (3)

Students learn to analyze financial statements for the purpose of valuing the firm. The course takes a user perspective, not a preparer's perspective. The course is an inter-disciplinary accounting and finance course. Students learn the limitations and complexities of the numbers used in valuing major components of the financial statements. Significant emphasis is placed on the current American regulatory environment; impending changes within that environment; as well as on international and global regulatory issues. Prerequisites: BUS 501 or BUS 230A and 230B, and BUS 507

## BUS 540 Strategic Human Resource Mangement (3)

Strategic human resource management offers a framework for general managers to implement best HR practices in their organizations. The focus is on implementing long term programs that either add demonstrable value, or programs which effectively manage risks to the organization, Emphasis will be placed on utilizing HR metrics to measure outcomes.

## BUS 545W Global Wine Business (3)

Current theory and practice of how wine businesses have evolved to become a global industry. Students analyze and debate cutting edge issues in strategic management, leadership, organization, human resources, entrepreneurship, family business, government regulation, management of technology, financial management, and socially responsible practices. Prerequisite: Classified Graduate status in the Wine MBA Concentration

## BUS 550 Seminar in Organization Behavior and Management

 Theory (3)An examination of the business organization with reference to management, design, change and organizational behavior. Prerequisite: BUS 504 or equivalent.

## BUS 552 Leadership and Team Building (3)

Leadership and Team Building go hand in hand and represent critical elements of the managerial process. This course examines theoretical formulations of leadership and combines that with study of exemplar leaders. Specific topics include: use of power, authority and persuasion, characteristics of effective leaders, comparison of alternative leadership styles, and entrepreneurial leadership. The role of leaders in molding teams is an underlying theme. Prerequisite: BUS 504 or equivalent, or consent of instructor.

BUS 554 Social Entrepreneurship In Theory and Practice (3) This course examines the theory and practices of social entrepreneurship, The course will examine how entrepreneurial solutions can be fashioned and applied to job creation, workforce development and meeting other social needs. Specific topics include: social responsibility, venture philanthropy, opportunity assessment, market analysis, financial principles of sustainability, micro enterprises, and nonprofit organizations.

BUS 555W Sustainability in the Wine Hospitality Industry (3) Current theory and practice of how wine and hospitality businesses can become sustainable business. Course content includes business rationale for adopting environment and social equity practices for improved business performance and success. Students analyze and debate cutting-edge issues in sustainability including a review of global wine and hospitality businesses using sustainable practices; audit and compliance; energy management systems; IS0 standards; creation of sustainable business strategies; development of policies and practices for sustainable practices for operations; success measures; and cost-benefit analysis. Prerequisite: Classified Graduate status in the Wine MBA Concentration.

## BUS 559 Seminar in Advanced Mgmt Topics (3)

Graduate study of a current or emerging management topic of special interest. May be repeated for credit with the consent of the M.B.A. coordinator. Prerequisites to be determined by the instructor.

## BUS 560 Seminar in Marketing Management (3)

Study of marketing situations, development of marketing plans and evaluation of marketing programs. Careful consideration of the conceptual background of marketing including trends and emerging developments. Prerequisite: BUS 506 or equivalent.

## BUS 565W Marketing and Sales Strategies for Wine (3)

Study of wine marketing and sales on a global basis. Focus on branding, research, positioning and promotion of wine. Consideration of distribution alternatives and sales strategies for wine. Development of marketing plans for wine products. Prerequisite: Classified Graduate status in the Wine MBA concentration.

## BUS 570 Seminar in Managerial Finance (3)

Financial theory and applied financial analysis. Topics may include security analysis, portfolio management, financial accounting, corporate financial policy, investment banking and international finance. Prerequisites: ECON 501, BUS 501, BUS 507 or BUS 370 and BUS 508, or equivalent preparation.

## BUS 578 Project Continuation (1-3)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the M.B.A. graduate coordinator. $\mathrm{Cr} / \mathrm{NC}$ only.

## BUS 581 Research Methods for Managers (3)

Practical approaches to the design, execution and interpretation of applied business research activities. Development of analytical skills and research techniques, including an understanding of the assumptions, limitations and appropriate uses of various research designs and strategies. Prerequisite: BUS 508.

## BUS 591 Seminar in Strategic Management (3)

A consideration of the entire organization from the viewpoint of the chief executive officer. Topics to be covered include strategy formulation, the development of competitive advantage, strategy implementation, and the management of strategic change. Prerequisites: BUS 540, 560, 570.

BUS 592 Entreprensurship and New Venture Creation (3)
Entrepreneurship focuses on new venture creation and venture feasibility analysis. Working in teams, students will learn to identify, conceptualize, plan, finance, launch, manage and harvest new ventures. Entrepreneurship, the application of entrepreneurial methods of management to established organizations, will also be discussed. Prerequisites: BUS 540, 560, 570.

BUS 593 Seminar in International Business (3)
Comprehensive view of the international economic environment as it relates to international business. Topics include the multinational corporation, subcontracting, counter trade and international institutions such as the World Bank and GATT. Prerequisite: ECON 501.

BUS 595 Special Studies in Business Administration (1-3) Supervised independent study. A maximum of 3 units may be applied toward the requirements for the M.B.A. degree. Prerequisite: consent of faculty member under whom the individual work is to be conducted, consent of the M.B.A. coordinator, and approved "Application for Special Study 495/595."

BUS 596 Graduate Internship (1-3)
Field experience for qualified graduate students in business administration. A maximum of 3 units may be applied toward the requirements for the M.B.A. degree. Students must establish with the M.B.A. coordinator that the work involved is clearly integral to the student's graduate studies. Cr/NC grade only.

BUS 599 Master's Degree Directed Research (1-3) Research directed by the student's committee on a project. An Advancement to Candidacy Form GSO 1 must be filed with the MBA Coordinator before the student registers for this course.

## Chemistry (CHEM)

## CHEM 102 Chemistry and Society (3)

Lecture, 2 hours; laboratory, 3 hours. An introductory course in chemistry for nonmajors. Covers the basics of chemistry in an effort to better understand current environmental issues. The laboratory will consist of experiments covering chemical principles and phenomena discussed in the lecture. Satisfies GE, category B1 (Physical Sciences) and GE laboratory requirement.

## CHEM 105 Elem of General, Organic and Biochem (5)

Lecture, 4 hours; laboratory, 2 hours. A survey of the principles of chemistry, with emphasis placed on those that apply to living organisms. The course is designed for students in nursing and majors that do not require further courses in chemistry. Course is not a prerequisite for any chemistry course. Satisfies GE, category B1 (Physical Sciences) and GE laboratory requirement.

CHEM 107 Introduction to Physical Science for Teachers (3) Lecture, 3 hours. A non-mathematical course designed to introduce students to a range of topics in physics and chemistry that are required by the California Science Standards for grades K-8, including the laws of motion, energy, the structure of matter, the states of matter, electricity and magnetism, light and optics. Lectures include many demonstrations to illustrate physical science principles and students will be asked to think about how they would demonstrate or explain various concepts.

## CHEM 110 Introductory General Chemistry (3)

Lecture, 3 hours. Develop fundamental knowledge and necessary skills in General Chemistry for students who plan to major in science or pre-health programs. Recommended for students with no prior chemistry background or as a refresher course to enhance an insufficient chemistry background. Topics covered include the scientific method, word problem analysis, significant figures, scientific notation, unit conversion, periodic table, chemical equations, fundamental laws of matter and energy, the mole concept and stoichiometry. Prerequisite: Satisfaction of ELM requirement. Cr/NCr or graded. Satisfies GE category B1. Fall only.

## CHEM 115A General Chemistry (5)

Lecture, 3 hours; laboratory 3 hours. Principles of chemistry for students in science, pre-health and related areas of study. This course will introduce students to science and scientific thought by using problem-solving strategies in both a conceptual and mathematical manner. First semester topics include atomic and molecular structure, states of matter, chemical reactions, stoichiometry and thermodynamics. Second semester topics include kinetics, equilibrium, buffers, and electrochemistry. Satisfies GE, category B1 (Physical Sciences), and laboratory requirements.

## CHEM 115B General Chemistry (5)

Lecture, 3 hours; laboratory 3 hours. Continuation of CHEM 115A. Prerequisite: CHEM 115A. Satisfies GE, category B1 (Physical Sciences), and laboratory requirements.

CHEM 125A Honors Analytical General Chemistry (5) Lecture, 3 hours; laboratory 3 hours ( 5 units). This one-year sequential honors analytical general chemistry course is designed for students who have a prepared background in chemistry. Topics traditionally covered in the first semester of general chemistry (periodic trends, stoichiometry, aqueous chemical reaction and molecular geometry) will be briefly reviewed. However, this first semester course (CHEM 125A) will focus on bonding, kinetics, solutions, acid-base equilibrium, thermodynamics, and electrochemistry. Prerequisite: 4 or higher on the high school AP chemistry exam, or a pass on the departmental chemistry placement exam. Letter grade or Cr/NC. Fall A / Spring B. GE credit for area B1.

CHEM 125B Honors Analytical General Chemistry (5)
Lecture, 3 hours; discussion 1 hour; laboratory 3 hours ( 5 units). The second semester (CHEM 125B) starts by applying the topics covered in the first semester to statistics, chemical literature, chromatography, spectroscopy and biological chemistry. After completion of this course students will receive credit for the full year of general chemistry and one semester of quantitative analysis (CHEM 255). Prerequisite: 4 or higher on the high school AP chemistry exam, or a pass on the departmental chemistry placement exam. Letter grade or Cr/NC. Fall A / Spring B. GE credit for area B1.

## CHEM 255 Quantitative Analysis (4)

Lecture, 2 hours; laboratory, 6 hours. Theory and practice of methods of analysis, including volumetric, gravimetric and selected instrumental techniques. Prerequisite: CHEM 115B.

## CHEM 310A Fundamentals of Physical Chemistry (3)

Lecture, 3 hours. Development and applications of the concepts of thermodynamics, equilibrium, kinetics, quantum mechanics, and spectroscopy to chemical systems. Prerequisites: CHEM 255; CHEM 125B; MATH 211S; PHYS 210AB or 214 and 216; or consent of instructor.

## CHEM 310B Fundamentals of Physical Chemistry (3)

 Lecture, 3 hours. Continuation of CHEM 310A. Prerequisites: CHEM 310A; CHEM 255; CHEM 125B; MATH 211S; PHYS 210AB or 214 and 216; or consent of instructor.
## CHEM 316 Fundamentals of Physical Chem Lab (2)

Lecture, 1 hour; laboratory, 3 hours. Physiochemical measurements, with an emphasis on error analysis, instrumental techniques, report writing and presentation. Prerequisites: CHEM 310A; concurrent enrollment in CHEM 310B or consent of instructor.

## CHEM 325 Inorganic Chemistry (3)

Lecture, 3 hours; Atomic structure, symmetry and group theory of small molecules and the relationship of these concepts to bonding theory and molecular spectroscopy. Applications of symmetry and group theory to coordination chemistry of transition metal complexes in organometallic, environmental, bioinorganic, and materials chemistry. Other topics include kinetics and reaction mechanism of inorganic and organometallic compounds including electron transfer. Prerequisites CHEM 310B, or concurrent enrollment.

## CHEM 335A Organic Chemistry (5)

Lecture, 3 hours; laboratory lecture, 1 hour; laboratory, 3 hours. Basic course in the general theory and reactions of organic chemistry. Emphasis on basic principles. Recommended for science and pre-professional majors. Prerequisite: CHEM 115B; CHEM 125A or consent of instructor.

## CHEM 335B Organic Chemistry (3)

Lecture, 3 hours. Continuation of CHEM 335A. Prerequisite: CHEM 335A.

## CHEM 336 Organic Chemistry Lab (2)

Laboratory lecture, 1 hour; laboratory, 3 hours. Fundamental techniques of organic chemistry, emphasizing synthetic organic chemistry, modern instrumental methods, and qualitative organic analysis. Designed to complement CHEM 335B. Prerequisite: CHEM 335A.

CHEM 397 Chemistry Practicum (1-6)
Supervised chemistry work experiences that involve practical application of previously studied theory. Intended for professional growth and/or collection of data for future theoretical interpretation. Not applicable toward the chemistry major or minor. May be repeated for up to a total of 6 units. Two hours of work per week for each unit of credit. Cr/NC only. Prerequisite: junior standing or consent of instructor.

CHEM 401 Instrumental Analysis and Chemical Synthesis (3) Lecture, 1 hour; laboratory 6 hours. An integrated inquiry and project-based upper-division course. The projects will cover the synthesis and characterization of organic and inorganic molecules and characterization of student-prepared molecules. This course is only offered in the fall. Prerequisites: CHEM 255 or CHEM 125B; and CHEM 336 highly recommended.

CHEM 402 Advanced Synthesis and Instrumental Analysis (3) Lecture, 1 hour; laboratory 6 hours. Project-based synthesis, purification and characterization of inorganic, organic and organometallic molecules. Capstone course for BS chemistry degree. Topics will include air-sensitive syntheses, standard Schlenk line techniques, characterization through IR, optical and NMR spectroscopy, mass spectrometry and electrochemistry. Prerequisite: CHEM 401. Highly recommended: CHEM 325, or consent of instructor.

## CHEM 441 Віосhemical Methods (3)

Project based course involving characterization of proteins from natural sources utilizing biochemical methods and experimental design techniques common in biotechnology and research. Capstone course for biochemistry degree. Offered in spring only. Prerequisites: CHEM 445 or 446 (may be concurrent), CHEM 255 and a foundation in spectroscopy, kinetics strongly recommended.

## CHEM 445 Structural Biochemistry (3)

Lecture, 3 hours. A study of the structure: function relationships of amino acids, proteins, enzymes, carbohydrates, lipids and nucleic acids. Also includes topics such as enzyme kinetics, membrane transport and signaling. Only offered in the fall. Prerequisites: CHEM 335B or CHEM 232 and a foundation in kinetics and thermodynamics, or consent of instructor.

## CHEM 446 Metabolic Biochemistry (3)

Lecture, 3 hours. A study of bioenergetics and the metabolism of biological molecules including carbohydrates, lipids, nucleic acids, and proteins. This course is only offered in the spring. Prerequisites: CHEM 335B or CHEM 232, CHEM 445 or BIOL 123, and a foundation in kinetics and thermodynamics, or consent of instructor.

## CHEM 492 Chemistry Seminar Series (1)

Invited speakers from universities and industry will present on current topics in the chemical and biochemical fields.

## CHEM 494 Undergraduate Research and Service Learning (1-6)

 This course serves as a 'senior experience' for our graduating majors. Under supervision by the chemistry faculty, students will participate in individual investigations of student-or faculty-initiated chemical problems. May be taken only by petition to the Chemistry Department. May be repeated. Prerequisites: consent of instructor.
## CHEM 495 Special Studies (1-3)

Investigation of existing information on a specific or general topic of interest to the student. May be repeated. Prerequisite: consent of instructor; upper-division standing in chemistry or closely related science.

## CHEM 496 Selected Topics in Chemistry (1-3)

A study of an advanced topic in chemistry. May be repeated for credit with new subject matter.

## CHEM 497 Research Seminar (1)

Laboratory, 3 hours. Capstone course for B.A. and B.S. degrees. The course will focus on techniques involved in the preparation and delivery of technical seminars. This final project will be a formal oral presentation to the chemistry department on a research paper from the chemical literature or the student's undergraduate research project. Instruction includes the appropriate coverage of the selected topic, use of the chemical literature, and the reparation and use of PowerPoint, graphic and web-based applications to create an informative talk. Prerequisites: senior standing or consent of instructor.

## CHEM 499 Internship (1-4)

Chemistry field experience in industrial, hospital or similar laboratory settings. Enrollment by prior arrangement with supervising faculty member and community sponsor. Please see department advisor for details. Three hours of work per week for each unit of credit. Internship assignments may be paid. Cr/NC only. May be repeated.

## Chicano and Latino Studies (CALS)

## CALS 219 The Latino Experience (3)

A survey of the Chicano and Latino experience in the United States. The course serves as an introduction to Chicano and Latino studies through the social sciences in order to explain the individual's status and place within the group and society. This includes how Chicano and Latinos and other Latinos have adapted to the various cultural, social, economic and political elements of U.S. society as compared to other groups. Satisfies ethnic studies requirement in GE, category D1 (Individual and Society).

## CALS 220 Chicano/Latino Arts and Literature (3)

A survey of the humanities (arts and letters) found in Chicano/Latino cultures. Introduction to traditional and contemporary literature, drama, cinema, art, music, and dance forms found in the Spanish-speaking communities of the Southwestern United States and their related heritages. Satisfies ethnic studies in GE, category C4 (Comparative Perspectives).

## CALS 225 Spanish for Bilinguals (3-4)

The study of the grammar and structure of Spanish with ample practice, in oral and written forms, to help develop proficiency in normative Spanish, using various language-acquisition techniques. Students will be able to enter upper-division classes in Spanish. Standard or normative Spanish will be compared and analyzed in terms of non-normative, regional and local community varieties of Spanish. Prerequisite: functional Spanish skills at the second-year level or equivalent. Satisfies foreign language in GE, category C4 (Comparative Perspectives and Foreign Languages). This course does not satisfy GE ethnic studies requirements. Requirement: concurrent enrollment in CALS 225L.

## CALS 225L Language Laboratory/Field Work (1)

At least two hours per week of practice in the language laboratory or in an approved fieldwork setting such as a Spanish-speaking organization, community agency or bilingual classroom. Cr/NC only. Prerequisite: concurrent enrollment in CALS 225.

## CALS 301 CALS Leadership and Mentoring (1)

A supervised, guided process where senior-level majors in CALS coach and mentor newly declared majors after having been coached by a senior student the previous semesters. Elective units. May be enrolled for more than once.

## CALS 310 Chicano/Latino Arts and Crafts Workshop (1) <br> Analysis of and workshop on providing Chicano Mexican and other Latino arts and crafts. Includes village and folk arts, with particular emphasis toward adapting these arts to the public school curriculum. Course projects require a public exhibit.

## CALS 314 Literature in Translation (3-4)

A study of Latin American works of literature in English translation ranging from major authors to lesser-knows texts, each of which explore identify, culture and regional perspectives. Topics can include transcultural and transnational considerations, non-western as well as contemporary culture, philosophy and religious values. Prerequisite: Completion of GE area A.

## CALS 339 Latinos and the U.S. Labor Market (3-4)

This course is designed as an overview of major theories, trends and debates on the topic of Latinos and labor market inequality in the United States. Topics include urban poverty, discrimination in employment, how jobs and workers are matched, and over-arching issues as globalization and place affects the labor force. Particular attention is given to the interaction between race and class as determinants of the life chances of minorities and specifically Latinos in the United States. Satisfies upper-division ethnic studies in GE, category D1 (Individual and Society).

## CALS 350 Latino Cultural Studies (4)

This course focuses on the theoretical debates that have shaped the field of Chicano and Latino studies. In the tradition of Américo Paredes' With His Pistol in His Hand, the class will emphasize the role that counter-cultural narratives and traditions play in relation to Chicano/Latino identities and identity-based activism/ politics.

## CALS 352 Chicano/Latino Philosophy (3-4)

The course examines the intellectual history of the Chicano/Latino community. This includes a rich variety of ideas, belief systems, world views and philosophical perspectives derived from pre-Columbian times and later syncretized with European philosophy. The philosophical tradition of the West is seen from a different angle that provides challenging insights for students. Special attention is given to the relationship of these ideas to the ethics and values of the Chicano/Latino community within a cultural and historical milieu. A broader framework allows for the consideration of Chicano/Latino philosophy as a crossroads of Western and Asian philosophical traditions. Satisfies ethnic studies and upper-division GE, category C3 (Philosophy and Values).

## CALS 365 Chicano/Latino Theatre (2)

A review of the development of drama in literary Chicano/Latino culture from a variety of sources - anthropological, sociological and historical - as well as contemporary developments. Course includes a workshop leading to the performance of a term play, along the lines of the Teatro Campesino. May be repeated once for credit.

## CALS 366 Mexican Folk and Traditional Dance (1-2)

An introduction to folk and traditional dances of Mexico; this is a performance course requiring active student involvement. Basic steps and three to five ballet folklorico dances will be taught, leading to a public performance. Dances include Norteno, Jarabes de Jalisco, Jarochos de Veracruz, and one or more indigenous dances. May be repeated once for credit.

## CALS 368 Chicano/Latino Music (4)

This course explores Chicano/Latino musical practices with a special focus on their historical origins. The social, cultural and political significance of Chicano/ Latino musical forms will also be addressed in this class. The class will acquaint students Chicano/Latino musical traditions and understand their significance within a multicultural society. Satisfies ethnic studies and upper-division GE, category C1 (Fine Arts).

## CALS 374 Chicano/Latino Literature (3-4)

A course designed to identify, analyze, and appreciate current literary themes and forms within the Chicano/Latino experience, including their literary antecedents, through novels, short stories, poetry, and plays. This course will focus on Chicano/ Latino authors from California every fourth semester in conjunction with the California Cultural Studies Program. Satisfies ethnic studies and upper-division GE, category C2 (Ethnic Studies in World Literature). Note that CALS majors are required to enroll in the section designated for majors and related fields.

## CALS 393 Chicano/Latino Cinema (4)

An introduction to Chicano/Latino cinema, its history and its relationship with the film industry in Hollywood and in Latin America. Special attention will be given to the emergence of Latina/o-produced films, tracing the evolution of alternative aesthetic and narrative strategies. Satisfies ethnic studies and upper-division GE, category C1 (Fine Arts).

## CALS 395 Community Involvement Program (CIP) (1-4)

Provides students with practical experience in school classrooms, various ethnic community organizations, health and social service agencies, including recreation programs, day care centers and senior citizen centers. One unit is equivalent to 30 hours of volunteer work per semester. Units are not applicable to the CALS major. Meets field experience requirements for the CALS waiver program.

## CALS 398 MECнА (1-2)

Movimiento Estudiantil Chicano de Aztlan involves students in experimental projects that will orient them to problems faced by the Chicano/Latino student community and the greater Hispanic community in the campus service area.

## CALS 400 Selected Topics in Chicano Studies (1-4)

Offered occasionally, based on student interest and faculty availability: Chicano/Latino Art Workshop; Chicano Perspectives on Mexican History; Chicana; Feminisms; La Frontera: Border Studies; and Economics and the Chicano Small Business Development: Chicano/Latino Community.

## CALS 403 Chicano/Latino Youth and Adolescents (3-4)

General psychological principles and theories of growth and human development as they apply to Chicano/Latino youth. Course will focus on Latino adolescents and their adjustment to the life cycle and American society and its impact on the self, peer group relations, family life, and other sources of conflict. Satisfies ethnic studies and upper-division GE, category E.

## CALS 405 The Chicano/Latino Family (3-4)

Examines the Latina/o Family in a psychological and sociological context. The role of international and internal migration and acculturation on Latino family structure and functioning, contemporary gender roles and sexualities, variations in family structure, race and class identity, and the impact of economic and cultural dislocation are examined. Family violence, addiction, mental and physical health, family resilience and coping strategies are also examined. The class is designed to prepare students to work in social service environments (including family and individual therapy, public policy, social welfare, health services, community advocacy, and education), with applicable understandings of the contemporary Latino family.

## CALS 426 Chicano/Latino Sociolinguistic (4)

This course examines the role language plays in structuring social interactions among Chicanos/Latinos. The class includes an overview of the phonetics, morphology and lexicon of multiple varieties of Spanish and English, and explores issues such as dual-language acquisition, code switching, language maintenance, non-verbal communication, policy planning and bilingual education.

## CALS 432 Latinas/os and Globalization (4)

This class will explore the effect that late-stage capitalist globalization has upon Latino workers. How do changes in the world economic system, including the advent of global free trade regions (NAFTA, FTZs) affect the composition and opportunities open to Latino populations in the United States. Examines the development of transnational economic and cultural networks as a result of globalization. Satisfies ethnic studies requirement in GE, category D5 (Contemporary International Perspectives).

CALS 442 Race, Class and Gender Among Latinos (4)
A course centered on the institutional, cultural and psychological components of race, class, and gender relations among Latinos and their effect on different communities. Institutional inequality, questions of assimilation and identity, attitudes, and effects of inequality on community activism and politics will be explored.

## CALS 445 Chicano/Latino History (4)

An analysis of Chicano/Latino history, from the exploration and settlement of the Southwest to the present. To include an examination of such themes and topics as: the Chicano heritage, the Mexican War and Treaty of Guadalupe Hidalgo, the land question, social banditry and other forms of resistance, the Chicano in the 20th Century, and contemporary Chicano/Latino issues, organizations and movements.

## CALS 450 Chicano/Latino Children’s Literature (3-4)

An analysis of children's literature written about and for Chicano/Latino children both in the U.S. and abroad. Students will review and analyze the literature for style and content. Includes the study of nontraditional literature collections from the Spanish-speaking community. Prerequisite: functional Spanish language skills.

## CALS 450 Chicano/Latino Children's Literature (3-4)

 An analysis of children's literature written about and for Chicano/Latino children both in the U.S. and abroad. Students will review and analyze the literature for style and content. Includes the study of nontraditional literature collections from the Spanish-speaking community. Prerequisite: functional Spanish language skills.
## CALS 451 Latina/o Humanisms (3-4)

A comparative analysis of the nature and meaning of race and ethnicity's in the U.S. from its origins in Latin America to its cultural manifestations and social concepts. Discussion and study will be focussed from interdisciplinary perspectives, including the humanities, history, sociology, cultural and film studies. Satisfies upper-division standing in GE, category C4 (Comparative Perspectives). Prerequisite: Upper-division standing.

CALS 456 Sociology of Education/Latinos and Education (4) This course introduces students to some key theoretical and empirical work in the sociology of education and Latinos. Because this is such a large field of research, the course will focus on the question of stratification and how systems of schooling maintain or alleviate inequality among Latino communities. We will examine classical approaches to schooling, schools as organizations, schools and their effects on social mobility, (class, race, and gender) stratification in achievement and attainment, tracking/ability grouping, theories and empirical work on social and cultural capital, school choice, and cross-national expansion of education. Our readings will cover both qualitative and quantitative studies in the field. Prerequisite: CALS 458 and upper-division standing.

## CALS 458 CALS Research and Methodology (4)

This course introduces majors to advanced research techniques in order to enhance their research and information literacy competencies. A brief history of the field and an overview of current debates in the discipline will also be presented. This class is a prerequisite for CALS 426, CALS 445, CALS 456 and CALS 480.

CALS 460 Cross-Cultural Math and Science for Teachers (3) Taught in bilingual format, this course helps prospective teachers prepare for the classroom, providing linguistic and cultural depth and strategies in basic science areas and math concepts including number systems and problem-solving, metrics, geometry, probability and statistics. Prerequisite: Functional Spanish language skills and completion of GE math and science GE (Areas B1 and B2) requirements.

CALS 474 Major Authors in Chicano and Latino Literature (4) A detailed study of representative authors, genre, period, or region, in consideration of socio-economic, political and cultural contexts. Requires critical discussion in class, annotated bibliography, and senior-level term paper. Not in core.

## CALS 479 Chicano/Latino Art History (4)

An analysis of art as expressed in the historical culture of Chicanos and Latinos, from ancient times to the present. A cultural art history approach. Field trips. Includes a studio practicum when offered for 4 units. Satisfies ethnic studies in GE, category C1 (Ethnic Studies in the Fine Arts).

## CALS 480 Latin American Migration to the United States (4)

 This course provides a broad overview of international migration to the United States, paying particular attention to Latin American migrants. The course attempts to understand what life is like for Latinos involved in migration to and from the United States. Attention is given to the diversity of today's Latin American migrants, their social origins, their adaptation experiences and exits, and contexts of incorporation. The course also analyzes the experiences of different Latin American immigrant groups in the state of California.
## CALS 495 Special Studies (1-4)

Independent study on a special topic for upper-division students. Prerequisite: completion and approval of a special studies form.

## CALS 499 Internship (1-4)

An Internship in Chicano and Latino Studies must combine: 1) service in a school or an agency where activity is related to the Latino community; 2) the selection of a topic for observation and study; 3) preparation of a bibliography and a reading list related to the internship activity; 4) a term paper that reflects both the internship work experience and appropriate research. The internship must be proposed and arranged ahead of time with the professor in CALS who will supervise the internship. Prerequisite: Senior status and completion of most CALS core classes.

## CALS 595 Special Studies (1-4)

Directed study for graduate students. Prerequisite: completion and approval of a special studies form.

## Communication Studies (COMS)

COMS 200 Principles of Mass Communication (4)
An introduction to the history of mass communication, the mechanics of the mass communication industries, and theories of mass communication as a social, cultural, and political phenomenon.

## COMS 201 Story Telling Via Video (4)

Designed for beginning video students. Assignments include, creating skits and music videos and conducting interviews using DV camcorders. Students also do a final creative project of their own.

## COMS 202 Methods of Media Criticism (4)

A survey of ways to analyze mediated texts, with a focus on film, television, magazines, music, news, and advertising. Methods and concepts include semiotics, structuralism, ideology, psychoanalysis, feminism, and postmodernism.

## COMS 210 Writing for the Media (4)

Introduction to a wide range of writing styles and formats, from hard news and features to press releases. Students learn to write for newspapers, magazines, television, radio, and the internet, as well as for public relations.

COMS 240 Introduction to Public Relations (4)
An overview of the history, structure, and organization of public relations. Students also learn the basic public relations tactics of writing, presentation, event organization, and web communication.

## COMS 265 Introduction to Radio Broadcasting (4)

History of broadcasting; evolution of broadcast technology; introduction to basic theories and techniques of radio broadcasting. Overview of radio station organization, programming and operation. Experience in radio program development and production techniques.

COMS 301 Mass Communication Theory and Research (4) Intermediate-level study of the key research events that contributed to the development of communication theories, government policy, and the emergence of communication as an academic discipline. Crosslisted as SOCI 331. Prerequisites: COMS 200, 202, and Junior-level standing.

## COMS 302 Media Ethics (4)

Students analyze real-life ethical issues that media professionals face on TV, radio, newspapers, the internet, in public relations, and in the music and entertainment industries. Classroom exercises involve discussion, debate, critical thinking and reasoning, and practical application of ethical principles. Prerequisites: COMS 200 and 202.

## COMS 315 Media Law (4)

An intensive exploration of the rules and regulations governing media and communication in the United States. The focus is on the First Amendment. Students take exams, write papers, and participate in moot trials on issues of libel, privacy, copyright, obscenity, and the right to a fair trial. Prerequisites: COMS 200, 202, and Senior-level standing.

## COMS 316 Advanced Digital Film Making (4)

Intensive production for filmmakers. In fall semester, students work on biography, news, and multi-camera talk shows. In spring, students work on screenplays, scenes with actors, images for songs. Beginning students use DV camcorders and I-Movie2. Advanced students use 3-chip cameras and edit on Final Cut or Avid. Prerequisite: COMS 201.

COMS 317 Advanced Radio Broadcasting (4)
This course encourages students in their individual interests in Radio/Sound Recording. Students will learn more about the application of sound to all aspects of the media world; from the producing or hosting of live radio shows to the use of sound in promotions and DVD production. Prerequisite: COMS 265.

## COMS 318 Advanced Media Writing (4)

Writing for different media, including Blogs, magazines, radio, websites, newspapers, and investigative reporting. Emphasis on development of sources, proposals, pitches, working in teams, writing in-depth features and columns on issues, trends and complex ongoing stories. Prerequisite: COMS 210 or consent of instructor.

## COMS 320 Selected Topics in COMS (4)

Intensive study of various topics and trends in the mass media, including advertising, propaganda and persuasion, children and the media, technical and scriptwriting, environmental and international communication, and film. May be repeated for additional credit with new subject matter.

## COMS 321 International Communication (4)

Course develops a basic understanding of current issues related to the field of international communication. Surveys readings and videos on global media (MTV, CNN, ESPN, theme parks, video games, advertising, media campaigns for social change, computer hackers, Sesame Street, etc.). Overseas job and volunteer opportunities discussed.

## COMS 322 Broadcast Journalism (4)

Introductory class on the art and craft of Journalism, print, video, and radio, by career professionals. Designed to give students a taste of real world media experience.

COMS 323 Environmental Communication (4)
Course will focus on research, reporting skills to produce magazine articles, or video/radio documentaries on health, science, and the environment. Other assignments include press releases, profiles, memos. Lecture, videos, and field trips help to critique news, public relations, ads, PSAs, campaigns, film, television, music, and the internet on related issues. Junior standing required.

## COMS 324 Scriptwriting for Video (4)

Course focuses on fundamentals of writing professional-level scripts for video, television, and film productions. Assignments include lab work and homework producing scripts and storyboards for Public Service Announcements (PSAs), commercials, news packages, documentaries, corporate and educational training programs, and dramatic screenplays. Junior standing required.

## COMS 326 Advanced Presentation Techniques (4)

Course involves intensive self-evaluation of both verbal and non-verbal elements of presentation. Interviews, group communications and presenting with multimedia are covered. Theories of communication are discussed as they relate to presentation styles. Junior standing required.

## COMS 327 Media and Children (4)

Students learn about the latest research in child development, media design and marketing. Students then apply these ideas to the creation of a media message for a specific age group. Junior standing required.

COMS 328 America at the Movies (4)
An examination of the sociopolitical meanings and significance of American film from the silent era to the present. To better understand how films can potentially reflect and affect society, students read about American history and analyze dozens of films in their particular historical contexts.

COMS 329 "Reality" TV and Film (4)
How is "reality" mediated in film and television? In this course students examine the truthfulness, ethics, and sociopolitical implications of such forms and genres as the documentary, neorealism, Dogme 95, tabloid talk shows, voyeurism/confession shows, crime shows, freak shows, and contest/game shows.

COMS 332 Screening Violence (4)
Violence in media and popular culture has been the subject of great concern and voluminous research for many years. In this course students examine the history, meaning, and real-world implications and effects of media violence, with a focus on film, television, literature, news, sports, comics toys, and video games.

COMS 333 Communication, Power and Social Change (4) How does power operate through communication to delay or to advance social progress? Analyze history, film, documentary, news, corporate PR, government propaganda and cultural myth. Craft short messages from comic books to posters to radio or video spots. Design and get feedback for messages students create on issues of choice.

## COMS 340 Advanced Public Relations (4)

A hands-on class for students who are planning to work in the field of public relations. Students work as consultants with clients to develop plans for public relations campaigns. Prerequisite: COMS 240 or an introductory public relations course. Junior standing required.

## COMS 368 Newspaper Writing/Editing (STAR) (4)

The faculty advisor offers a comprehensive evaluation-oral and written - of the most recent edition of the campus newspaper, the STAR. Instruction is provided on a wide variety of journalism topics, from editing and reporting to ethics and law. Students are required to read the STAR and the written evaluation by the advisor. May be repeated for up to 12 units.

## COMS 369 SSU-TV (4)

This is an essential class for students who will work in the Broadcasting Industry. Students will learn about the history, structure, and operations of local broadcasting. Students will be expected to work in a specific department of SSU-TV during the semester. May be repeated for credit up to 12 units.

## COMS 385 Media Lab: Radio (KSUN) (4)

A media lab to develop a range of skills in the production of radio programs. Work focuses on the production of live and prerecorded pieces for KSUN, SSU's internet radio station (www.sonoma.edu/ksun). The lab also serves as the staff meeting of the radio station. May be repeated for up to 12 units.

## COMS 402 Senior Seminar (4)

Students will share at least one critical analysis of a specific media message and complete a senior-level project/portfolio/study, which is the culmination of their major experience. Seniors only. Cannot be repeated for credit.

## COMS 435 Seminar in Mass Media (4)

Seminar provides an opportunity to gain new insights into social problems through an intensive analysis of the role and impact of mass communication in contemporary society. Emphasis is on exploring, through a major research project, social issues that should be, but are not, fully covered by the mass media. Prerequisite: COMS 301 or SOCl 300 or SOCl 331 or consent of instructor. Crosslisted as SOCl 435.

COMS 460 Teaching Assistant in Communication Studies (1-4) Intended to give students experience assisting instructors. Teaching Assistants help teach, do research, tutor students in classes. Consent of instructor and department contract required.

COMS 470 Research Assistant in Communication Studies (1-4) Intended to give selected students experience in the construction and implementation of a professor's research project. Consent of instructor and department contract required.

## COMS 495 Special Studies (1-4)

Supervised study of a particular problem or area of interest in the media selected by the student in consultation with a sponsoring faculty member. Meetings will be arranged for discussions and progress evaluations. May be repeated for credit. Consent of instructor and Special Study 495 contract required.

COMS 497 Journalism Field Study (1-3)
Students will travel to the national journalism conference where they will attend educational seminars in all aspects of journalism from writing, design photography to media convergence. They will attend lectures and speeches by both nationally and internationally renowned journalists and scholars. To be taken with COMS 368.

## COMS 499 Media Internship (4)

This class provides students with an opportunity to discover how to make an effective transition from the classroom to the workplace. For a semester, individuals work in a media firm, business, newspaper, radio or TV station. On the job, students learn networking and negotiating skills. Assignments for class include: a resume, workplace lingo, self-evaluation, profile of supervisor, and album with photos and text that describe the experience. There is also an interview for a job. Seniors only. Consent of instructor, internship agreement form, and department contracts required. Can be taken for up to 12 units only.

## Computer Science (CS)

## CS 101 Introduction to Computers and Computing (3)

Lecture, 2 hours; laboratory, 2 hours. This course is an introduction to the concepts, techniques, uses, applications and terminology of computers, computing and networking. Emphasis is on the possibilities and limitations of computers and computing in a wide range of personal, commercial, and organizational activities. Topics include computer types, history of computing, computer organization and operation, computer languages, program development, computer applications (word processing, database, graphics, spreadsheets, etc.), basic networking and computers in society. Weekly hands-on experience with a variety of operating systems, applications and computer programming. Not applicable to the CS major. Recommended for all students. Satisfies GE, category B3.

## CS 115 Programming I (4)

Lecture, 3 hours; laboratory, 3 hours. This course gives an overview of computer organization; arithmetic and logical expressions, decision and iteration, simple I/O; subprograms; principles of good programming style, readability, documentation, structured programming concepts; top-down design and refinements; techniques of debugging and testing. Use of the above concepts will be implemented in a standard high-level programming language. Satisfies GE, category B3. Prerequisite: GE math eligibility, or CS 101 or consent of instructor.

## CS 115W Programming I Workshop (1)

A workshop designed to be taken with CS 115. Exploration of programming concepts through problem solving in a group setting. Corequisite: CS 115.

## CS 175 Introduction to Computer Graphics (3)

Lecture, 2 hours; laboratory, 2 hours. This is a first course in computer graphics hardware and software. Topics include graphics hardware, microcomputer graphics, presentation and business graphics, graphics for artists, computer mapping, CAD/CAM (drafting and environmental applications), animation, 3 -dimensional graphics and desktop publishing. Students will have hands-on experience using a variety of graphics programs on microcomputers. Not applicable to the CS major. Prerequisite: previous computer course or consent of instructor.

## CS 185 Special Topics in Computer Sci (1-4)

This lower-division course may be repeated with different subject matter. Content will be indicated by the specific topic. Prerequisite: consent of instructor.

## CS 210 Introduction to Unix (1)

Laboratory, 3 hours. This course is an introduction to the use of Linux/Unix as a programming environment. Communicating with a Unix host, shells and shell commands, files and directories, Gnome desktop, jobs and processes, scripting, programming utilities (compiler, linker, debugger, make, hex dump, etc.). Prerequisites: CS 115, or consent of instructor.

## CS 215 Programming II (4)

Lecture, 3 hours; laboratory, 3 hours. This course is a sequel to CS 115. Topics include: Pointers and dynamic allocation of storage, linked lists, an introduction to the object oriented programming (0OP) paradigm, classes and objects, encapsulation, member variables and member functions, inheritance and polymorphism, scoping, templates, iterators, and error handling techniques. Prerequisites: CS 115 and previous or concurrent enrollment in CS 210, or consent of instructor.

## CS 242 Discrete Structures for Computer Science (4)

Lecture, 4 hours. This course covers fundamental mathematical concepts blended with their applications in Computer Science. Topics include: sets, functions and relations, Boolean algebra, normal forms., Karnaugh map and other minimization techniques, predicate logic, formal and informal proof techniques, relational algebra, basic counting techniques, recurrence relations, introduction to graph theory. Prerequisites: CS 115 and MATH 161, or consent of instructor.

## CS 252 Introduction to Computer Organization (4)

Lecture, 3 hours; laboratory 3 hours. This course looks at the interface between computer hardware and software by introducing computer architecture and low-level programming. Topics to be covered include: data representations, digital logic, combinational and sequential circuits, computer system organization from the machine language point of view, and assembly language implementation of high-level constructs. Prerequisites: CS 210 and CS 242, or consent of instructor.

## CS 285 Selected Topics in Computer Science (1-4)

This lower division course may be repeated with different subject matter. Content will be indicated by the specific topic. Prerequisite: as indicated in the specific topic description or by consent of instructor.

## CS 315 Data Structures (4)

Lecture, 3 hours; laboratory, 3 hours. This course introduces the concept of the organization of data into different structures to support the efficient implementation of computer algorithms. The emphasis of the course is on the internal representation of the elementary and intermediate data structures, their time and space requirements, and their applications. A second component of the course is the study of more advanced features of object oriented programming. Prerequisite: CS 210, CS 215 and CS 242, or consent of instructor.

## CS 340 Computer Security and Malware (3)

Lecture, 3 hours; laboratory, 2 hours. Current methods for increasing security, protecting privacy, and guaranteeing degrees of confidentiality of computer records; ensuring computer installation safety; protecting software products; preventing and dealing with crime; value systems, ethics, and human factors affecting use and misuse of computers. Discussion of recent technical, legal, and sociopolitical issues influencing computer security problems, with an emphasis on malware. Prerequisites: CS 215 and CS 252, or consent of instructor.

## CS 349 Problem Solving in a Team Environment (1)

Laboratory, 2 hours. This course focuses on problem solving and program development in a team programming environment. Topics include: techniques for problem analysis and algorithm design, rapid implementation and pair programming methods, use of standard container classes and library functions. Different types of problems will be selected each semester. May be repeated for credit. A maximum of 3 units can be applied to the Computer Science major. Prerequisite: CS 315 or consent of instructor. SSU students taking this course participate in regional and national programming competitions.

## CS 351 Computer Architecture (4)

Lecture, 4 hours. This course is a sequel to CS 252 and includes the following topics: Instruction set design; stages of instruction execution, data and control path design; CISC, RISC stack; pipelining; program optimization techniques, memory hierarchy: cache models and design issues, virtual memory and secondary storage; I/O interfacing; advanced topics to include some of the following: parallel architectures, DSP or other special purpose architecture, FPGA, reconfigurable architecture, asynchronous circuit design. Prerequisites: CS 215 and CS 252, or consent of instructor.

## CS 355 Database Management Systems Design (4)

Lecture, 4 hours. This course focuses on the theoretical as well as the practical aspects of modern database systems. Topics include the study of the entity-relationship (E/R) model, relational algebra, data normalization, XML as a semi-structured data model, data integrity and database administration. Current tools and technologies are used to create and manipulate sample databases. Prerequisite: CS 215 or consent of instructor

## CS 360 Object Oriented Programming (3)

Principles of object-oriented programming, including encapsulation, inheritance, polymorphism, and design patterns. Specific applications are developed in one or more object-oriented programming languages and will cover the use of application frameworks and graphical user interfaces based on object-oriented principles. Prerequisites: CS 215, or consent of instructor.

## CS 365 Computer Networking and the Internet (3)

Lecture, 2 hours; laboratory, 3 hours. This course introduces the theory and practice of computer networking. Network hardware implementations of local area networks, internet wide area networks, telephone networks, and wireless networks are investigated with hands on exercises configuring current network devices with practical and theoretical treatment of device limits. Network software implementations of switches and routers, peer to peer networking, and hosted applications are investigated. Operating system interfaces and distributed networking software are studies to illustrate the current practice and future directions for computer networks. Prerequisites: CS 215 and CS 252, or consent of instructor.

## CS 370 Software Design and Development (4)

Lecture, 4 hours. Techniques of software design and development. Software lifecycle, requirements, formal specification, metrics, design, functional and structural testing, rapid prototyping, complexity, version control, and team management Software metrics, tools for component based software development. Team-based, agile and scrum methodologies emphasized. Prerequisite: CS 215 or consent of instructor.

## CS 375 Computer Graphics (3)

An introduction to computer graphics. Survey of the fundamental algorithms and methodologies: polygon fill, line-drawing, antialiasing, geometric transformations, viewing and clipping, spline representation, occlusion and visible surface detection, illumination, texturing, color models, rendering, shaders, animation, and emerging techniques. Prerequisites: CS 215 and MATH 161, or consent of instructor.

## CS 380 ETS Major Field Test (1)

The focus of this course is preparation for the Major Field Test in Computer Science. Students will review material in the basic knowledge areas of computer science including: discrete structures, programming, algorithms and complexity, systems, software engineering, and information management. The course will culminate with students taking the Major Field Test in Computer Science administered through Educational Testing Services. This course is intended for students whom have completed the majority of required coursework in the CS major and are within one semester of graduation.

## CS 385 Selected Topics Computer Sci (1-4)

This course may be repeated with different subject matter for credit in the CS major. Prerequisites: upper-division standing with consent of a CS advisor and consent of instructor

## CS 390 Computer Science Colloquim (1)

Series of lectures on current developments in computer science. May be repeated for credit; a maximum of 3 units can be applied to the CS major; students will be required to attend all presentations, take notes and research each of these presentations. Contact the department for specific information. $\mathrm{Cr} / \mathrm{NC}$ only.

## CS 395 Community Involvement Program (1-4)

CIP involves students in basic community problems. The most common task for a CS student will be tutoring at a local school. Not applicable to the CS major. Prerequisites: CS 115 and consent of instructor.

## CS 415 Algorithm Analysis (4)

Lecture 4 hours. This course provides a systematic approach to the design and analysis of algorithms with an emphasis on efficiency. Topics include algorithms for searching and sorting, hashing, exploring graphs, integer and polynomial arithmetic. Foundations in recurrence relations, combinatorics, probability, and graph theory as used in algorithm analysis are covered. Standard design techniques such as divide-and-conquer, greedy method, dynamic programming, heuristics and probabilistic algorithms along with NP-completeness and approximation algorithms are included. Prerequisite: CS 315, or consent of instructor.

## CS 450 Operating Systems (4)

Lecture, 4 hours. This course covers the fundamental concepts of operating system design and implementation, the study of problems, goals, and methods of concurrent programming, and the fundamentals of systems programming. Topics include resource-management, process and thread scheduling algorithms, inter-process communication, I/O subsystems and device-drivers, memory management include virtual memory, segmentation, and page-replacement policies. These topics will be covered in theory and in practice through the study of the source-code of a working operating system. Prerequisites: CS 252 and CS 315, or consent of instructor.

## CS 452 Compiler Design and Construction (3)

Lecture, 2 hours; laboratory, 2 hours. Application of language and automata theory to the design and construction of compilers. Lexical scanning, top-down and bottom-up parsing; semantic analysis, code generation; optimization. Design and construction of parts of a simple compiler using compiler generation tools. Prerequisite: CS 215 and 252, or consent of instructor.

## CS 454 Theory of Computation (4)

Lecture, 4 hours. Overview of various kinds of computability, unsolvability, and decidability. The P vs NP problem. Abstract mathematical models of computing devices and language specification systems with focus on regular and contextfree languages. Classification of computer-solvable problems. Prerequisite: CS 315 , or consent of instructor.

## CS 460 Programming Languages (4)

Lecture 4 hours. This course provides a survey of the syntactic, semantic, and implementation features of functional, procedural, object-oriented, logic and concurrent programming languages. Prerequisites: CS 252 and CS 315, or consent of instructor.

## CS 465 Data Communications (3)

Lecture, 2 hours; laboratory, 3 hours. The ISO reference model, theoretical basis for data communications, data transmission theory and practice, telephone systems, protocols, networks, internetworks, with examples. Prerequisites: CS 351, or consent of instructor.

## CS 470 Advanced Software Design Project (3)

Lecture, 3 hours. This course is a project based course designed to provide a "real world, team oriented" capstone experience for computer science majors. Coursework will be organized around large programming projects. The content of the projects may vary depending on the interests of the instructor and may include industry, government, non-profit organization, or other affiliations. Prerequisites: CS 315, CS 370, and senior standing in the major, or consent of instructor.

## CS 480 Artificial Intelligence (3)

This course is a survey of techniques that simulate human intelligence. Topics may include: pattern recognition, general problem solving, adversarial gametree search, decision-making, expert systems, neural networks, fuzzy logic, and genetic algorithms. Prerequisite: CS 315 or consent of instructor.

## CS 495 Special Studies (1-4)

This course is intended for students who are doing advanced work in an area of computer science (e.g., a senior project). Prerequisite: an upper-division CS course in the area of interest and consent of instructor.

## CS 496 Senior Seminar (1-4)

Discussion of a topic of current importance in computer science. Independent student projects or oral presentations may be required. Prerequisite: senior standing in CS curriculum.

## CS 497 Internship (1-3)

Student projects conceived and designed in conjunction with an off-campus organization or group. The internship is intended to provide on-the-job experience in an area of computer science in which the student has no prior on-the-job experience. Computer hardware or computer time required for the internship, as well as regular supervision of the internship, must be provided by the off-campus organization. Prerequisite: student must be within 30 units of completion of the CS major. May be taken $\mathrm{Cr} / \mathrm{NC}$ only. No more than 3 units can be applied to the CS major.

## Computer and Engineering Science (CES)

## CES 400 Linear Systems Theory (3)

Lecture, 3 hours. Analysis of linear time-invariant systems, correlation, convolution, impulse response, complex variables, Fourier series and transform, sampling, filtering, modulation, stability and causality, feedback and control systems, Laplace and Z-transform, fast Fourier transforms. Prerequisite: MATH 241 or consent of instructor. (Crosslisted with MATH 430 and ES 400).

## CES 430 Рнотолics (3)

Lecture, 3 hours. Lasers, diode lasers and LED's, fiber optics, optical radiation detectors. Prerequisites: A course in modern Physics (such as PHYS 314) and electromagnetism (such as PHYS 430). (Crosslisted with PHYS 445 and ES 445).

CES 432 Physics of Semiconductor Devices (3)
Lecture, 3 hours. Semiconductor materials, crystal structure and growth, energy bands and charge carriers, conductivity and mobility; metal semiconductor and p-n junctions, p-n junction diodes, bipolar junction transistors, field effect transistors, CCD's, photonic devices and integrated circuits. Projects in photolithography; conductivity and contact resistance measurements; I-V and C-V characteristics of diodes; characterization of transistors may be assigned. Prerequisites: ES 230 or PHYS 314 or consent of instructor. (crosslisted with PHYS 475 and ES 432).

## CES 440 Introduction to Networking and Network

 Management (3)Lecture, 2 hours; laboratory, 3 hours. The ISO reference model, theoretical basis for data communications, data transmission theory and practice, telephone systems, protocols, networks, internetworks, with examples. Prerequisites: ES 440 or consent of instructor. (Crosslisted with ES 465).

## CES 490 Selected Topics in CES (1-3)

Special topics to introduce new emerging fields, provide foundation for advanced graduate level courses or augment other courses in computer and engineering science. Prerequisite: consent of instructor.

## CES 494 Directed Readings (1-3)

Independent study under a faculty member. The proposal must be approved by the graduate advisor if the course is to apply towards degree requirements. Prerequsite: consent of instructor.

## CES 500 Queuing and Transform Theory (3)

Lecture, 3 hours. Review of probability theory, fundamentals of transform theory, Fourier and Z-transforms. Markovian and discrete time queuing systems, single and multi server queuing networks and their applications. The course may require significant lab and/or project activity. Prerequisites: ES 314 or consent of instructor.

## CES 506 Operations Management (3)

Production/operations management of manufacturing and service operations. Topics include forecasting and scheduling, material requirements planning, and quality assurance. Additional tools include inventory control, project management, and product development. Modern techniques such as Supply Chain Management, e-business, Just-in-Time, and Total Quality Management are illuminated. Crosslisted with BUS 516.

## CES 510 Intelligent Systems Design (3)

Lecture, 3 hours. Introduction to adaptive systems: neural networks, genetic algorithms (GAs), fuzzy logic, simulated annealing, tabu search, etc. Specific topics include perceptions, backpropagation, Hopfield nets, neural network theory, simple GAs, parallel GAs, cellular GAs, schema theory, mathematical models of simple GAs, and using GAs to evolve neural networks. Prerequisites: ES 314 and CES 400, or consent of instructor.

## CES 512 Theory of Software Systems (3)

Lecture, 3 hours. Review of data structures and basic algorithms for sorting, searching and string processing. Basics of logic, formal systems, grammars and automata. Applications to some of the following areas: design of language processing tools (editor, translator etc.), software specification, testing and verification, non-numerical problem solving. The course may require significant lab and/or project activity. Prerequisite: ES 314 or consent of instructor.

## CES 514 Data Mining (3)

Lecture, 3 hours. Introduction to data models, data warehousing, associationrule mining, searching the Web, Web Mining: Clustering. Al techniques (neural networks, decision trees), applications and case studies. The course may require significant lab and/or project activity. Prerequisite: ES 314 or consent of instructor.

## CES 516 High-Performance Computing (3)

Lecture, 3 hours. Algorithmic tools and techniques for problems hard to solve on a standard uniprocessor model such as problems involving large data sets or real-time constraints; development of computational models to analyze the requirements and solutions and special hardware based solutions; case studies to illustrate the developed models, tools and techniques. The course may require significant lab and/or project activity. Prerequisite: ES 314 or consent of instructor.

## CES 520 Embedded Systems (3)

Lecture, 3 hours. Three major topics covered in this course are: controlling specialized I/O devices with particular attention to bit patterns and priority interrupts; waveshapes and measurement tools, both hardware and software; and real time operating systems. Prerequisites: ES 230, 231 and 310 or consent of instructor.

## CES 522 VLSI Design (3)

Lecture, 3 hours. IC technology review; hardware description languages and describing hardware using one of the languages, modern VLSI design flow; circuit partitioning; clustering. Floorplanning; placement; global routing; area efficient design, area-time trade-offs. The course may require significant lab and/or project activity. Prerequisite: CES 530 or consent of instructor.

## CES 524 Advanced Computer Architecture (3)

Lecture, 3 hours. Concept of advanced computing architectures, pipelining; multiprocessing and multiprogramming. Single and multi-stage interconnection networks, applications/algorithms for parallel computers; local and system business architectures; CPU and computer system performance analysis. The course may require significant lab and/or project activity. Prerequisite: ES 310 or consent of instructor.

## CES 530 Analog and Digital Microelectronics (3)

Lecture, 3 hours. Introduction to analog/digital integrated circuits, bipolar and MOS transistor models, analysis and design of monolithic operational amplifiers, frequency response, non-linear circuits and CMOS and Bipolar Logic Circuits. The course requires lab and/or project activity. Prerequisites: ES 230-231 and CES 432 or consent of instructor.

CES 532 Advanced Photonics Devices (3)
Lecture, 3 hours. Optical resonators, interaction of photons with materials, LEDs, laser diodes, optical amplifiers, optical noise, photoconductors, electrooptic modulators, photonic switches, nonlinear optical materials and devices. The course requires lab and/or project activity. Prerequisite: CES 430 or equivalent.

## CES 540 Digital Data Transmission (3)

Characteristics of base-band and bandpass channels, optimum signaling sets, and receivers for digital communications; effect of noise and intersymbol interference on probability of error; channel capacity; introduction to phase-locked loop analysis for timing and carrier synchronization. Prerequisites: CES 400 and CES 440 or consent of instructor.

## CES 542 Digital Signal Processing (3)

Lecture, 3 hours. Time/frequency analysis of discrete-time signals and systems. Fast implementations of the DFT and its relatives. IIR and FIR digital filter design, implementation and quantization error analysis. Decimation, interpolation, and multirate processing. Prerequisite: CES 400 or consent of instructor.

## CES 543 Optical Fiber Communications (3)

Lecture, 3 hours. Lightwave fundamentals, optical fiber as transmission media, losses and bandwidth, fiber cables. Optical sources, detectors. Optical components such as switches, access couplers, wavelength multiplexers and demultiplexers. Analog and digital transmission techniques, line coding techniques, optic heterodyne receivers, thermal and shot noise, bit error rates, optical transmission system design. Optical T-carrier systems and SONET, future directions. The course may require significant lab and/or project activity. Prerequisite: PHYS 230-231 and CES 440, or consent of instructor.

## CES 544 Wireless Communication (3)

Lecture, 3 hours. Introduction to mobile/wireless communication systems, cellular communication, data transmission and signaling, noise and intelligence, analog and digital techniques, multiple-access architecture. The course requires lab and/or project activity. Prerequisites: ES 230-231 and CES 440, or consent of instructor.

## CES 546 Data Compression (3)

Lecture, 3 hours. Information theory, models, lossless compression (statistical, dictionary, static, dynamic, huffman, arithmetic, context-modeling), lossy compression (scalar quantization, vector quantization, differential encoding, subband transform, predictive), compression standards (JPEG, MPEG). Prerequisites: ES 314 or consent of instructor.

CES 547 Digital Switching: Techniques and Architectures (3) Lecture, 3 hours. Review of switching techniques, synchronous and asynchronous transfer modes (i.e., STM and ATM) and various switch architectures. Multi rate and multipoint-to-multipoint switching, ATM switching, signaling and call set-up, ATM switch-architectures and their performance evaluation, multicasting techniques. VLSI implementation considerations, future directions. The course may require significant lab and/or project activity. Prerequisites: MATH 345, ES 230231 and CES 440 or consent of instructor.

CES 550 Integrated Digital Networks (3)
Lecture, 3 hours. Information types and signals, definitions of services and integration, narrow ISDN and frame relay protocols, broadband ISDN concept and protocol. Integrated environment and ATM, principles of SONET and ATM transmission, broadband ATM networking, future trends. The course may require significant lab and/or project activity. Prerequisite: CES 440 or consent of instructor.

## CES 552 Network Architecture and Protocols (3)

Lecture, 3 hours. ISO model, review of the physical and data link layers, network layer and routing including for internet, multicast routing, TCP and UDP protocols and their characteristics, performance and limitations, TCP/IP stack, applications such a FTP, e-mail and DNS, voice over IP. The course may require significant lab and/or project activity. Prerequisite: CES 440 or consent of instructor.

## CES 554 Broadband Access Technology (3)

Lecture, 3 hours. Review of ISDN and B-ISDN Protocols, digital subscriber loops, digital modems. The xDSL technology, xDSL family of protocols, ADSL standardization, its architecture, operation, implementation and management, ATM, TCP/IP, Ethernet transmissions using ADSL, optical access. The course may require significant lab and/or project activity. Prerequisite: CES 440 or consent of instructor.

## CES 558 Multicasting on the Internet (3)

Lecture, 3 hours. Multicasting fundamentals, multicast routing algorithms, IP multicast, architecture and operation of MOSPF, PIM, CBT, OCBT, HDVMRP, HPIM, BGMP, and, Mbone protocols. Real-time transport protocol and scalable reliable multicast, reliable multicast transport protocols. Multicasting in ATM networks, IP multicast over ATM, future directions. The course may require significant lab and/or project activity. Prerequisite: CES 552 or consent of instructor.

## CES 561 Computational Techniques for Biomolecules (3)

## CES 562 Biomedical Instrumentation (3)

## CES 563 Biophotonics (3)

CES 564 Medical Image Processing (3)
CES 590 Selected Topics in Communications and Photonics (3) Special topics to augment regularly scheduled graduate courses in communications and photonics will be presented. Prerequisites depend on subject material.

## CES 591 Internship (1)

Internship will be done at an industry, R\&D laboratory, government organization or a laboratory or center at an academic institution to gain professional training, teamwork experience, communication skills and project opportunities that will prepare students for a successful career in the real world.

CES 592 Selected Topics in Hardware and Software Systems (3) Special topics to augment regularly scheduled graduate courses in hardware and software systems will be presented. Prerequisites depend on subject material.

## CES 592B Selected Topics in Bioengineering (3)

Lecture: 3 hours; laboratory: 0 hours. Special topics to augment regularly scheduled graduate courses in bioengineering will be presented. Prerequisite: consent of the instructor.

## CES 593 Lab and Tech Report Experience (3)

Lecture, 1 hour, laboratory, 6 hours. In this course, students will learn to operate state-of-the art equipment in at least 6 laboratories, perform experiments and write lab reports. In addition, students will write a technical report on a state-of-the art topic within the scope of the master's program of at least 3000 words excluding figures and tables. (The course cannot be taken to meet 30-unit requirement under thesis or project option unless approved by the Program Director). Prerequisite: permission of student's advisor.

## CES 594 Directed Readings (1-3)

Independent study under a faculty member: The proposal must be approved by the graduate advisor if it is to apply towards degree requirements. Prerequisite: consent of instructor.

## CES 595 Design Project (1-3)

The project plan, timetable, necessary resources and the expected outcome must be approved by a faculty project advisor and the program advisor at least one semester before taking the course. Prerequisite: Admission of candidacy for the Master's degree and approval of the faculty advisor.

## CES 596 Project Continuation (1-3)

Designed for students working on their thesis or design project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisites: Consent of faculty thesis/project advisor.

## CES 597 Graduate Seminar (1)

Series of lectures presented by experts from academia and industries.

## CES 598 Comprehensive Examination (1)

In this four-hour examination, the student's overall understanding of important concepts of the core courses and the main subjects of each track will be tested. Prerequisite: Advancement to candidacy for the master?s degree and approval of the graduate advisor.

CES 599 Research and Thesis (1-6)
Prerequisites: Admission of candidacy for the master's degree and approval of the thesis advisor.

## Counseling (COUN)

## COUN 496 Migrant-Education Advisor Program (1-4)

School-based counseling experience supervised by Counseling department faculty. Under the guidance of the instructor, undergraduate students advise, counsel, and mentor K-12 students with a migrant background. Prerequisite: participation in the Mlgrant Education Advisor Program (MEAP) and consent of the instructor.

## COUN 501 Theory and Practice: Professional Counselor (4)

This course surveys the roles and responsibilities of professional counselors, including an examination of students' professional identity development. Different approaches to counseling intervention (i.e., psychodynamic, affective/experiential, cognitive-behavioral, narrative approaches, and systemic theories) are compared and contrasted relative to the goals of counseling, the factors involved in helping individuals and families change, and the practitioner's role in the process. Culturally appropriate use of theories and interventions in the context of human development is emphasized. Professional identity development is further enhanced through exposure to the history and philosophy of the counseling profession, including professional roles, functions, and relationships with other human service providers. This overview also acquaints counseling students with a) relevant professional organization; b) the various credentialing, certification, licensure, and accreditation standards that may impact practice; c) advocacy processes to benefit clients; and d) ethical and legal standards of the various counseling disciplines.

COUN 502A Adult Development: Individual Family and Career (3) This course is designed to provide students with an overview of theories for understanding the processes of adult development and how to incorporate this understanding into counseling interventions. Students will discuss clinical cases within the context of adult transitions and life events, including long term care concerns and elder abuse. Gender, sexual orientation, and ethnicity issues will be integrated into both didactic and experiential learning. Changes in career, interpersonal relationships, and family structure and dynamics will be examined over the life span with an emphasis on their interdependence.

## COUN 502B Career Development in Adulthood (1)

COUN 502B focuses more specifically on career counseling, including theories of career development, knowledge of interviewing, assessment, and print and computer-based career counseling materials. Further considered are how diversity issues influence personal needs, values, aptitudes, abilities, and interests, which, in turn, affect career and educational choices.

## COUN 503 Sem: Dynamics of Individual Behav (3)

A course designed to cover psychopathology and sociopolitical-related issues of diagnosis and treatment. Attention is given to: (1) understanding the variability of psychopathology in community counseling settings; (2) the application of evaluation methods and diagnostic classification systems of the DSM-IV-TR; (3) development of appropriate treatment plans; and (4) the relationship of class, gender, and ethnic background to diagnosis and treatment.

## COUN 510A Sem: Counseling Pre-Practicum (4)

This course helps students to develop necessary basic multicurally-competent counseling skills to prepare them for field based training experiences in a wide variety of settings. Training is done through the use of videotape feedback and inclass practice demonstrations involving personal disclosure, role-play, and group and instructor feedback. This course is normally taken in the first semester by new students. Cr/NC only.

## COUN 510B Counseling Practicum (4)

This course provides students with an opportunity to continue the development of multiculrally-competent counseling skills necessary for advanced field training during the $514 \mathrm{~A} / \mathrm{B}$ field experience/internship sequence. There are different sections for Community Counseling/MFT and School Counseling/PPS students: Community Counseling/MFT students see clients in a structured fashion on campus and School Counseling/PPS students work in school settings under the instructor's supervision. Cr/NC only. Prerequisite: COUN 510A.

## COUN 511 Seminar: K-12 Academic Counseling and Career Development (4)

An introductory course in K-12 academic counseling and career development. Course content includes the foundations of learning theory, youth/lifespan career development and academic guidance models, and print/internet based academic/ career counseling materials. The course explores the impact of personal needs, values, cultural variables, aptitudes, abilities, and interests on academic progress and career/vocational choices.

## COUN 512 Seminar: Theory and Practice of Group

 Counseling (4)This didactic and experiential course provides students with an introduction to the concepts and practices of group counseling, supplemented by lectures and readings. The dynamics and procedures involved in working with groups will be examined with students functioning as both group participants as well as group leaders. The course also examines stages of group formation, confidentially and trust issues, co-counseling in groups, group dynamics and structure, and basic group counseling skills. Cultural factors related to group work are identified didactically and experientially. Practical approaches to group counseling include psycho-educational groups, interpersonal problem-solving groups, and task/work groups, among others. Prerequisite: COUN 510A or consent of instructor.

COUN 513 Seminar: Research amd Evaluation in Counseling (4)
A survey of the principles of research design as applied to community and school-related issues and settings, with emphasis on evaluation of human service programs. Students will also develop and complete a culturally sensitive written mental health or school guidance grant proposal under faculty supervision. Prerequisite: demonstrated competence in basic statistical analysis and COUN 525.

## COUN 514A Supervised Internship/Field Experience (4)

This seminar provides a group discussion and supervision format in conjunction with advanced field based training, which may be in school settings (PPS students) or in community counseling settings (MFT students). The class meetings are designed to supplement the individual supervision received by site supervisors, and the goal of the seminar is to help students develop a model of professional functioning through the integration of theory, pragmatic strategies, and personal development. Aspects of cultural diversity that influence counseling practice in community and school settings will be addressed didactically and experientially. Integral to this experience is the exchange of feedback and support among seminar participants. Prerequisites (Community Counseling/MFT): 510A/B, 501, and additional courses. Prerequisites (School Counseling/PPS): 510A/B, 520, (COUN 501 highly recommended). Cr/NC only.

COUN 514B Supervised Internship/Field Experience (4)
This seminar provides opportunities to build upon and consolidate the field based training skills addressed in COUN 514A. A group discussion and supervision format continues to provide supplemental support relative to counseling field work in school settings (School Counseling/PPS students) or in community counseling settings (MFT students). The class meetings are designed to supplement the individual supervision received by site supervisors, and the goal of the seminar is to help students develop a model of professional functioning through the integration of theory, pragmatic strategies, and personal development. Aspects of cultural diversity that influence counseling practice in community and school settings will be addressed didactically and experientially. Integral to this experience is the exchange of feedback and support among seminar participants. Students will complete a culminating case study project, with both oral and written components. Prerequisites (Community Counseling/MFT): 510A/B, 514A, and additional courses. Prerequisites (School Counseling/PPS): 510A/B, , 514A, 520, (COUN 501 highly recommended.) $\mathrm{Cr} / \mathrm{NC}$ only.
COUN 520 Introduction to School Counseling (4)
This course provides a conceptual overview and orientation to the practice of school counseling. Emphasis will be placed on school counseling programs as critical components of the education enterprise, the ASCA national model of school counseling, and the expanding and changing role of the school counselor.

## COUN 521 Sem: Pupil Personnel Services - Concepts and Or-

 GANIZATION (4)A seminar in organizing, supervising, and administering comprehensive service Pupil Personnel Programs in elementary and secondary schools; legal and financial aspects, as well as laws affecting children and child welfare are covered. Students learn how to create a developmental school counseling program that is an integral part of the entire educational program in the school. Prerequisite: COUN 520.

## COUN 523 Working w/Families in School Setting (4)

This course has as its focus a study of family systems and how they impact and interact with all the systems that involve the child including educational and cultural systems. Basic to this is the study of the students' own family of origin and its impact on the student. Each student is required to lead or co-lead a parent education group in a school setting during the last half of the course. Prerequisite: COUN $510 \mathrm{~A} / \mathrm{B}$ is required.

## COUN 524 Counseling Children and Adolescents (4)

This course provides an overview of the theories and techniques of child and adolescent counseling with a focus on youth development in a socio-cultural context. Counseling interventions used in schools and common concerns of school-aged students are emphasized. Methods for establishing rapport, goal setting, and case formulation are highlighted. Special emphasis will be placed on applying theory to practice in a developmentally appropriate manner.

## COUN 525 Psychological and Educational Assessment (2)

 This primarily didactic course provides students an overview of the nature and rationale of psychological measurement, both individual and group, with emphasis on its utility in community and/or school settings. Attention is given to both limitations in and justification for the measurement of human characteristics, including culturally-based relevance and appropriateness. Students will have an opportunity to practice the selection, administration, scoring, and interpretation of relevant assessment instruments. Class fee required at time of registration.COUN 526 Group Counseling in the Schools (4)
This didactic and experimental course examines the concepts and practices unique to group counseling in the schools. Psycho-educational strategies in the school settings are emphasized. Particular attention is given to processes and challenges involved in the implementation of these strategies; cultural context, effectiveness and evaluation issues will be explored. The dynamics and procedures involved in working with small and large groups will be studied with members as participants and as leaders. Prerequisite: COUN 510A (Pre-practicum) and COUN 520.

## COUN 527 Law and Ethics for School Counselors (3)

This course examines the legal and ethical responsibilities of the school counselor. Course topics include; educational counseling, child abuse reporting, confidentiality, record keeping, and attendance and truancy laws. This course also provides an overview of special education law, including: the different federal categories of disability, Individualized Educational Program (IEP) procedures, suspension and expulsion of students with disabilities, and Section 504 Accommodation Plans.

## COUN 528A Consultation (3)

This course provides a general framework for understanding and practicing culturally and contextually sensitive consultation, collaborative problem solving, and systems level intervention in educational settings. An exploration of the stages of consultation and the major models of consultation are covered. Students will gain experience in the delivery of consultation services.

## COUN 528B Crisis Intervention (1)

This course focuses on prevention, response, and recovery during a crisis, and the counselor's role as part of a school-based crisis intervention team. Crises include school violence, accidents, and the death or suicide of a student or faculty member. Maintaining the safety and security of the school community emphasized.

## COUN 535 Seminar: Development and Clinical Issues with

 Children (4)This course offers a developmental psychology perspective on culturally sensitive counseling interventions appropriately undertaken with children and adolescents. Course objectives include: (1) providing students with an introduction to basic intervention strategies for counseling children and adolescents taking into account cultural and socio-economic influences; (2) familiarizing students with special topics, e.g., impact of divorce on children, child maltreatment, effects of domestic violence; and (3) consideration of family, peer, school, and community contexts in treatment planning (i.e., integrative case formulation) with children and adolescents.

## COUN 540 Seminar: Marriage and Family Counseling (4)

 This course offers a foundation for understanding couple and family relationships by providing an overview of historical and contemporary models of theoretical conceptualization, assessment and intervention, including ways to work with families reflecting diversity. Attention is devoted to important legal and ethical considerations unique to working with families and couples; also included are assessment tools, crisis intervention (including domestic violence), and treatment planning. Prerequisites: COUN 510A or consent of instructor.COUN 545 Seminar: Law and Ethics for the Counselor (3) This course is designed to clarify the legal and ethical responsibilities of the community counselor. Legal standards related to counseling practice will be surveyed, including issues related to dissolution; child care, custody, and abuse; confidentiality; involuntary hospitalization; mandatory reporting requirements; detection, assessment, and treatment of domestic violence; and other issues related to the relationship between law and counseling. Ethical standards, which often overlap with legal standards, include cultural considerations as they impact counseling practice.

## COUN 570 Sem:Cross-Cultural Awareness in Coun (3)

This course is designed to provide students with an understanding of how the different forms of diversity (ethnicity, culture, sexual orientation, socioeconomic status, age, disability, religion and gender) can affect counseling processes. Students will identify and explore their own unique ethnic and cultural world view and see how it affects their counseling approaches in both community and school counseling settings. Students will also become knowledgeable about various minority groups in the United States and how majority culture influences the minority individualsi daily lives and their responses to counseling. The seminar will address cross-cultural aspects of counseling children, youth, and adults.

## COUN 580A Relationship Counseling (3)

This course explores relationship counseling from a variety of theories accompanied by their treatment approaches. An ecological approach to couples' functioning will be advocated with the result that counseling interventions will reflect the pluralistic needs of couples who are often embedded in complex social systems (including the legal system, the health system, among others). Issues such as domestic violence, developmental challenges, parenting/step-parenting, infertility, and extramarital engagements will be discussed. Cross-cultural perspectives and ethical issues will be integrated into all discussions. Prerequisites: Concurrent enrollment in COUN 580B, 510A or consent of instructor. COUN 540 is recommended.

## COUN 580B Sexuality Counseling (1)

This course provides students with knowledge and skills about counseling adults and couples about sexuality issues. Included are the physiological, psychological, and socio-cultural variables associated with sexual identity, sexual behavior, sexual disorders, sexual function and dysfunction, sex roles, gender identity, trauma and abuse, and aging. A biopsychosocial approach will be taken in working with a wide variety of sexual concerns; ethical and legal considerations in working with sexuality issues will be addressed as will issues of transference and counter-transference in working with these sensitive and intimate issues. Concurrent enrollment in COUN 580A.

## COUN 581 Introduction to Chemical Dependency (1)

A survey course designed to provide a broad conceptual base regarding the major dimensions of dependence upon drugs/alcohol. Emphasis is on practical issues from the standpoint of the family and the community. The course explores historical and current modes of treatment, intervention, and prevention of alcoholism and alcohol-related problems. Students are expected to have a basic understanding of psychopathology and family systems prior to enrollment. This course is designed to provide specific instruction in alcoholism and other chemical substance dependency, and is designed to meet the requirements issued by the Board of Behavioral Sciences, State of California.

## COUN 582A Psychopharmacology for Counselors (2)

This didactic course explores basic principles and applications of psychopharmacology in the mental health field. Emphasis is paid to neurotransmitter systems in the nervous system, principles of drug action, and clinical pharmacology (the use of medications to treat behavioral, psychological, and psychiatric conditions such as eating disorders, hyperactivity, depressive disorders, anxiety disorders, schizophrenia, and Alzheimer's disease). Attention will be paid to the community counselor's role in the effective multicurally-competent and ethical use of psycho-active medications (e.g., referral, consultation, monitoring) when psychopharmacological interventions are part of treatment as well as to the historical and sociopolitical contextual issues surrounding the use of psychiatric medication.

## COUN 582B Counseling Strategies and Chemical

## Dependency (1)

This course provides an overview of chemical dependency that includes evaluation, medical aspects, etiology, treatment approaches, legal aspects, risk factors, community resources, referral, and education/prevention of substance abuse.
Emphasis will be on culturally competent approaches to chemical dependency intervention and prevention. Students may take 582B in lieu of COUN 581 (Introduction to Chemical Dependency), which is only offered through Extended Education and is also open to the community at large.

## COUN 595 Special Studies (1-4)

## COUN 596 Supervised Field Experience (1-4)

Counseling experience supervised by Counseling Department faculty. Experience can be gained both at on-campus counseling facility or in outreach programs in the community. Cr/NC Only. Prerequisite: consent of instructor; for School Counseling students: permission of School Counseling faculty.

## Criminology and Criminal Justice Studies (CCJS)

## CCJS 201 Criminal Justice and Public Policy (4)

A systematic analysis of the effectiveness and influence of criminal justice policy and practice throughout the criminal justice system. The focus is on the development and implementation of crime control policy. Satisfies GE, category D1 (Individual and Society).

## CCJS 330 Government and the Rule of Law (4)

Nature and development of law and legal institutions from philosophical, historical, comparative, and contemporary perspectives; interrelationships of law, morality, and custom; social control, legal change and social change; and the legal profession.

## CCJS 340 Law Enforcement and Drug Legislation (4)

An examination of issues and problems posed by the licit and illicit use of drugs for the administration of justice and corrections. It critically examines social theories and social policies in relation to drugs. Topics to be covered include: the origins of the contemporary drug crisis in the United States; the development of criminal justice policies regarding drug use; the varieties of drugs and the destructive problem created by each for law enforcement, adjudication, and corrections. Some emphasis will be placed on economics, politics, and international relations as a factor in enforcement policies.

## CCJS 365 Management in Public Agencies (4)

Central concerns are the formation and administration of the managerial policies of public agencies. Focus on such vital issues as the allocation of public resources, public accountability, and the description, analysis, solutions, and synthesis of contemporary managerial problems in criminal justice agencies. Crosslisted as POLS 430.

## CCJS 370 Seminar: Research Methods (4)

A consideration of the methods used by criminal justice researchers in a variety of basic and applied settings. Topics include the choice of a problem, ethical issues, the logic of science, measurement, sampling procedures, surveys, coding, experimentation, observation, and summarizing findings.

## CCJS 375 Current Issues in Criminal Justice (4)

An in-depth examination of selected topics and issues in criminal justice. Specific course topic varies by semester.

## CCJS 399 Lecture Series (1-3)

A weekly meeting or meetings offering presentations and discussions by guest lecturers on issues of current interest and importance. May be repeated for a total of 4 units.

## CCJS 404 Introduction to Constitutional Law (4)

A survey of selected areas of constitutional law and Supreme Court decisionmaking, considering the political and social influences as well as doctrinal forces which have produced various policies and interpretations. Crosslisted as POLS 423.

## CCJS 405 Rights of the Accused (4)

Leading constitutional cases in criminal justice, including: search and seizure, death penalty, electronic surveillance, privilege against self-incrimination, jury trial, right to counsel, and double jeopardy, will be studied in detail. California Supreme Court decisions will be introduced where appropriate.

CCJS 407 Police, Courts and Community Relations (4)
Examines the history and role of the police in democratic society, including police discretion, police-community relations, police misconduct, and the impact of police strategies such as community-oriented and problem-oriented policing.

## CCJS 420 Seminar in Criminology (4)

An in-depth analysis of contemporary theories of criminal behavior; psychological, sociological, biological factors; professional criminals, white collar crimes, and other selected examples of deviant behavior and their relationship to agencies of social control.

## CCJS 430 Women and Crime (4)

An in-depth analysis of women/girls and crime in the field of criminology and criminal justice. The class examines the significance of gender in pathways to crime as well as the nature and extent of female offending, victimization, and incarceration. The course focuses on feminist theory and methodology.

## CCJS 441 Deviant Behavior (4)

A consideration of the problems created by pressures to punish and control criminals, the politics of control strategies, the use and misuse of probation and parole, the concept of correction, and alternatives to incarceration. Crosslisted as SOCI 314.

## CCJS 450 Punishments and Corrections (4)

A consideration of the problems created by pressures to punish and control criminals, the politics of control strategies, the use and misuse of probation and parole, the concept of correction, and alternatives to incarceration. Crosslisted as SOCI 450.

## CCJS 470 Media, Crime and Criminal Justice (4)

Examines the role and significance of mass media in the field of criminology and criminal justice, including lawmaking, law breaking and the responses to rule violations. The course covers the historical and contemporary media coverage of crime and criminal justice; the structure and content of media coverage of crime and related information; as well as the role and importance of media in the formation of citizen attitudes and behavior, decision-making and public policy.

## CCJS 480 White Collar Crime (4)

Examines the various forms, causes and consequences of white collar crime compared to other crime; reviews relevant theory and research; considers the reason for the difficulties in detection and prosecution and issues surrounding punishment; and examines the efficacy of prevention strategies.

## CCJS 489 Civil Liberties and the Constitution (4)

An examination of fundamental principles of constitutional law that govern and constrain the powers and operations of criminal justice agencies and their personnel. The rights and immunities guaranteed by the Constitution in general, and the civil liberties, rights, and freedoms protected by the Bill of Rights will be covered. Rights of the accused will also be considered. Crosslisted as POLS 424.

## CCJS 490 Senior Seminar:Criminology and Criminal Justice

 Studies (4)A comprehensive synthesis and examination of the theoretical concepts and empirical findings of other courses in the major curriculum. Areas of special interest to the instructor and the students will be closely studied. Prerequisites: senior standing and/or consent of instructor. Graduation Application submitted to Admissions and Records.

## CCJS 494 Interdisciplinary Seminar (1-4)

An exploration of selected criminal justice topics from an interdisciplinary perspective. Themes and topics may vary. May be repeated for credit.

## CCJS 495 Special Studies (1-4)

The supervised study of a particular problem or area of interest selected by the student in consultation with a sponsoring faculty member. Regular meetings will be arranged for discussions and progress evaluations, and a term paper is required. May be repeated for credit.

## CCJS 497 Juvenile Justice (4)

An exploration of the nature and extent of juvenile delinquency, including serious or violent crime. The major theories of delinquency causation are reviewed. The course will be devoted to the juvenile justice system and how it processes youths accused of crime. The nature and function of all major segments of the juvenile justice system will be discussed, including law enforcement, juvenile court, and corrections. The legal rights of juveniles will also be reviewed. Finally, the current policy issues in juvenile justice will be explored. Crosslisted as SOCI 366.

## CCJS 499 Internship (2-4)

In consultation with the major advisor, the student selects a public, private, or community agency, gains field experience under the supervision of agency heads, and meets with the faculty advisor to discuss progress. Cr/NC only. May be repeated for a total of 8 units.

## Economics (ECON)

## ECON 204 Introduction to Macroeconomics (4)

An examination of the basic characteristics of the American economy and the principles that determine its performance. Emphasis is given to those factors that determine the levels of production, employment, prices, interest rates, and inflation. Satisfies GE, category D5 (Contemporary International Perspectives).

## ECON 205 Introduction to Microeconomics (4)

An examination of the basic principles that determine the behavior of individual consumers and firms in the United States economy as they respond to changing economic conditions. Topics include demand, supply, pricing, production, cost, competition and industrial structure. This course may be taken before ECON 204.

## ECON 295 Сommunity Involvement Program (1-4)

A community service course allowing students the opportunity to earn credit for volunteer activities pertaining to their academic program. Requires 30 hours of service per unit and approval by an Economics Department advisor. Cr/NC only.

## ECON 303 International Economics (4)

A study of issues, theories and policies regarding international trade and finances, international movements of capital and labor, economic development, external debt and foreign aid. Prerequisite: ECON 204 and 205 or consent of instructor.

## ECON 304 Intermediate Macroeconomic Theory (4)

A study of economic theories that explain the levels and fluctuations in production, employment, income, money, and prices in an economic system, with an emphasis on the macroeconomic framework of the U.S. economy. Topics include national income accounting, models of short-run equilibrium and long-run growth, macroeconomic aspects of international economics, labor markets, monetary policy, and fiscal policy. Prerequisites: ECON 204, and ECON 205 and MATH 165 or equivalent.

## ECON 305 Intermediate Microeconomic Theory (4)

A study of theories that explain consumer behavior and managerial decision making in organizations and firms in the economy. Deals with theories of demand, pricing, production, cost analysis, and competition. Prerequisites: ECON 204 and ECON 205 and MATH 165 or equivalent.

## ECON 311 Public Economy (4)

A basic introduction to the economics of the public sector designed to give the student a broad overview of the economic roles of government in our society. Emphasis will be on understanding current public policy issues and the effects of government policies on resource allocation (efficiency) and income distribution (equity). Prerequisites: ECON 205 and ECON 317 or consent of instructor.

## ECON 317 Introduction to Econometrics (4)

Statistical techniques, based on linear regression, most frequently employed in economics. Topics include multiple regression, Gauss-Markov Theorem and its violations, cross-sectional techniques, time series analysis, simultaneous equation modeling, and forecasting. Applying widely-used computer programs to economic phenomena is emphasized. Prerequisites: ECON 204, 205, and MATH 165 or equivalent or consent of instructor.

## ECON 318 Industrial Organization (4)

Economists understand firm behavior by applying a simple rule for profit maximization: Marginal Revenue equals Marginal Cost. Models of perfect competition and monopoly are the simplest applications of this rule, but fail to explain many of the things firms do in real markets. Industrial Organization (IO) is motivated by observed deviations from the classical models of perfect competition and monopoly. Topics include models of price discrimination, product differentiation, oligopoly, entry deterrence, collusion, etc. in order to understand how different market institutions lead to different restatements of the profit maximization rule. Prerequisites: ECON 205, MATH 107; ECON 305 recommended.

## ECON 321 Labor Economics (4)

A study of economic and social issues in U.S. labor markets. Topics will include U.S. labor history, market structure, labor laws, gender and race, education and training, and collective bargaining. Prerequisite: ECON 205.

## ECON 322 Urban Economics (4)

An exploration of issues facing communities and regions in their attempts to manage growth and enhance the quality of life. Microeconomic tools are applied in a spatial context to solve problems associated with land use, firm location, transportation, housing, congestion, open space and environmental protection. Prerequisite: ECON 204 or 205.

## ECON 375 Money and Banking (4)

An examination of financial institutions, monetary theory, and the rapidly changing domestic and international banking system. Topics will include alternative theories of monetary policy, the determination of interest rates and price levels, and the influence of financial institutions on inflation, recession and growth. Prerequisite: ECON 204 and ECON 205, or consent of instructor.

ECON 381 Natural Resource and Environmental Economics (4) A study of public and private sector strategies for achieving the optimal use of natural resources and the control of pollution. Topics include: energy, water, minerals, forests, air pollution, climate change and the valuation of environmental benefit and costs. Prerequisites: ECON 204 and 205, or consent of instructor.

## ECON 388 Economics and Law of Business Regulation (4)

An analysis of the regulatory environment of American business. Studies the way the legal system resolves economic conflicts among business, consumers, labor and government. Topics include: constitutional law, administrative law, regulation of monopoly and competition, labor law and international law. Prerequisite: ECON 205; and ECON 305 preferred.

## ECON 403A Seminar in International Econ Development (4)

Review of current issues and study of conceptual frameworks for thinking about economic development with a global perspective. Focuses on sources of economic growth, poverty alleviation, resource sustainability and reform of economic institutions in Latin America, Africa, Asia and ex-socialist economies. Prerequisite: ECON 303 or 304 or consent of instructor.

## ECON 403A Seminar in International Econ Development (4)

 Review of current issues and study of conceptual frameworks for thinking about economic development with a global perspective. Focuses on sources of economic growth, poverty alleviation, resource sustainability and reform of economic institutions in Latin America, Africa, Asia and ex-socialist economies. Prerequisite: ECON 303 or 304 or consent of instructor.ECON 403B Seminar in International Trade (4)
This class will cover three main topics of international economics: international trade, foreign direct investment, and immigration. To provide an understanding of the principles driving international trade, and Stolper-Samuelson theorem. In addition, this class will deeply focus on international trade theories under imperfect competition. Theories and policies that nations adopt to regulate international trade will be presented, too. The second section of this class begins with the question why firms choose a multinational structure over other potential methods of operation. Two fundamental theories, horizontal and vertical model, of foreign direct investment will be discussed in class. After this, the last section of this class will look at the relationship[ among foreign direct investment, immigration, and international trade. Prerequisites: ECON 303 and ECON 305.

## ECON 403C Seminar in International Finance (4)

The goal of this course is to explain movements in the trade balance, exchange rates, national output, and inflation. The first portion of the course develops building blocks regarding these movements. The second part of the course develops a theoretical framework which we will use to analyze policy issues such as the sustainability of the U.S. trade deficit, the Asian currency crisis, the Argentine crisis, the European Monetary Union and the Euro, the debt crisis, the international monetary system, and capital market integration, Prerequisites: ECON 304, 317, 303 or equivalents with consent of instructor. Do not take this class without these prerequisites.

## ECON 404 Seminar in Macroeconomic Theory (4)

A study of theories dealing with inflation, unemployment, macro-economic policies, equilibrium and disequilibrium. Topics may include: investment, growth theory, monetary theory, international trade, aggregate demand and supply, comparative statics, post-Keynesian economics, and recent theoretical developments and policy issues. Prerequisites: ECON 304 and MATH 165 or equivalent.

## ECON 405 Seminar in Microeconomic Theory (4)

This course is devoted to explorations of economic theory and policy issues and is designed to deepen student understanding of economic theory learned in ECON 305. Prerequisites: ECON 305 and MATH 165 or equivalent or consent of instructor.

## ECON 408 Seminar in Math Applications in Econ (4)

Applications of mathematical techniques in economics. Construction of micro and macroeconomic models using calculus and linear algebra. Topics include: optimization, competition, supply and demand, national income, growth theory, general equilibrium, disequilibrium and dynamics. Recommended for students considering graduate study in economics or business. Prerequisites: ECON 304 and 305, and MATH 161 or equivalent or consent of instructor.

## ECON 411 Seminar in Public Economics (4)

Applications of economic theory to public project analysis for students seeking careers in the public sector. Topics include: resource allocation, modeling and simulation, decision theory, fiscal impact analysis, benefit-cost analysis, government investment criteria and project evaluation. Prerequisite: ECON 304 and 305 or consent of instructor.

## ECON 417 Seminar in Econometrics and Forecasting (4)

This course is devoted to explorations of statistical applications and theory used to analyze economic phenomena and is designed to deepen the student's understanding of econometric and forecasting techniques learned at a basic level in ECON 317. Prerequisites: ECON 317, 304 or 305, or consent of instructor.

## ECON 418 Seminar in Game Theory (4)

Analytical approach to studying rational behavior in interactive situations. This course develops basic theory, inlcuding Nash equilibrium, mixed strategies, credibility, coalitional games, and the core. Applications may include public goods, voting, auction design, bargaining, and the competitive market mechanism. Prerequisites: ECON 305, MATH 165; MATH 161 recommended.

ECON 421 Seminar in Labor Economics (4)
An analysis of the theory of labor supply and demand. Topics include: wage determination and the theory of human capital, labor force participation, antipoverty programs, the causes and consequences of wage inequality, theories of race and gender discrimination, the role and effects of labor unions, and the effects of the minimum wage on employment and income. Prerequisites: Econ 305 and 317, or consent of instructor.

## ECON 426 Seminar in Hist of Economic Thought (4)

The interaction of economic thought, economic policy and political ideology from mercantilism to the present day. The works of Smith, Malthus, Ricardo, Marx, Marshall, Keynes and the post-Keynesians are discussed in the context of the economic problems of their times. Satisfies GE, category D5 (Contemporary International Perspectives). Prerequisite: ECON 204 and 205 or consent of instructor.

## ECON 432 Seminar in U.S. Economic History (4)

Economic development of the United States since the American Revolution. Topics to be covered include: capital formation and the growth of business concentration; the distribution of national income; problems of agriculture; growth of the labor movement; patterns of inflation and depression; impact of international relationships on U.S. economic development. Prerequisite: ECON 204 or 205 or consent of instructor.

## ECON 447 Seminar in Gender and Economics (4)

The course explores feminist and neoclassical economic contributions to gender analysis. The main focus will be on work, development, and globalization. Topics explored in depth will include the environment, the family, and methodological issues. The diversity of women's experience, due to their differing racial, class, geographical, and cultural positions will also be emphasized. Prerequisite: ECON 204 and 205, or consent of instructor.

## ECON 481 Seminar in Ecological Economics (4)

An exploration of the sustainable use of three types of capital: natural, human and financial. Public and private sector solutions are developed to promote the longterm viability of market-based economies. Topics include pollution control, fishery management welfare measurement, performance metrics and product design. Prerequisites: ECON 204 and 205, or consent of instructor.

## ECON 488 Seminar in Economics and Law of Business

 Regulation (4)Advanced topics in economic and legal aspects of business regulation. Prerequisites: ECON 204 and 205.

## ECON 494 Special Topics in Economics (1-4)

Course of lectures on a single topic or set of related topics not ordinarily covered in the economics curriculum. May be repeated for credit with a different topic. Prerequisite: consent of the instructor.

## ECON 495 Special Studies (1-4)

Open to economics majors only. Prerequisite: consent of the instructor.

ECON 496 Tutoring Economics (2)
Intended for advanced students working as tutors in economics courses. Cr/NC only. Prerequisite for first semester of tutorial work: concurrent enrollment in ECON 497.

## ECON 497 Seminar in Teaching Economics (2)

A faculty-directed seminar in teaching methods and concepts for students tutoring in economics. Cr/NC only.

## ECON 499 Internship (1-4)

ECON 501 Economics of Markets and Industries (3)
Price theory and resource allocation as applied to the analysis of market demand behavior and firm/industry production decisions. For the purpose of market demand estimations and forecasts the course covers basic macroeconomic concepts (GDP and Price indexes, etc.). For the purpose of understanding industry performance the course covers the basics of regulations. Prerequisite: a B.A. or B.S. degree.

## ECON 595 Special Studies (1-4)

Independent study designed in consultation with instructor. Subject matter variable. Students must complete the standard SSU form. Prerequisite: consent of instructor.

## Education (EDUC)

## EDUC 150 Prospective Teachers (3)

Focuses on realities of the classroom from the teacher's point of view. Includes child development, teachers' roles and responsibilities, and the culture of schools in a changing society. Includes an apprenticeship with a teacher. Grade only. Prerequisite: consent of instructor.

## EDUC 250 Teaching in a Changing World (3)

This course is designed to provide an introduction to the classroom from teachers' points of view. Areas of content include child and adolescent development, teachers' roles and responsibilities, the culture of schools in a changing society, as well as an apprenticeship with a practicing teacher. Particular emphasis will be on teacher decision making. Institutional changes that could improve teacher and student performance will also be explored. Each student will spend 30 hours observing and participating in an assigned public school classroom. Grade only.

## EDUC 291 Mentoring in School Based Programs (4)

Open to students who are tutoring in the community. Focus is on the profiles of mentors and mentees and how their individual and mutual relationships are affected: learning styles and strategies, self-esteem, perceived locus of control, communication, stress/anxiety, use/misuse of tutoring strategies, diversity, social/ family and educational systems. A wide variety of techniques and skills are used and developed by class participants to empower their tutees and to enhance their own effectiveness as a tutor/human being. Cr/NC only. Certificate received upon successful completion of training. Instructor permission required to enroll in the course.

## EDUC 295 Сommunity Involvement Program (1-4)

CIP involves students in the community, performing such tasks as tutoring. Students receive 1 to 4 units, depending on the specific tasks performed. A total of 6 units of CIP credit may be applied toward a degree. Cr/NC only. Recommend to have EDUC 250 as prerequisite, but not required. 30 hours of fieldwork is mandatory.

## EDUC 329 The Migrant Experience (2)

An examination of the migrant plight in our society and educational system through study of the literature and by a direct, active contact with the migrant community. Grade only. Prerequisites: functional Spanish language skills and participation in the mini-corps program, or consent of instructor.

## EDUC 390 Selected Topics in Education (1-4)

EDUC 395 Community Involvement Program (1-4)
CIP involves students in the community, performing such tasks as tutoring, coaching and reading for the blind. Students receive 1 to 4 units, depending on the specific tasks performed. A total of 6 units of CIP credit may be applied toward a degree. Cr/NC only.

EDUC 417 School and Society (3)
A critical examination of current issues in today's schools and future directions in education through the perspectives of history, philosophy, sociology, anthropology, and the politics of education. Content includes: trends, movements and issues of the development of our present-day school systems and current educational practice; development of an individual philosophy of education through examination and evaluation of educational philosophies from early Greek through modern/ post-modern thought; analysis of American society and its effect on the functioning of schools; the role of explicit and implicit cultural assumptions in educational contexts; and the influence of federal, state and local governing agencies, the knowledge industry and special-interest groups on education. Grade only. Satisfies GE, category D1 (Individual and Society).

## educ 443A Observation/Partcipation in Multicultural

 Settings (2)EDUC 481 Devel Creat Clsrm (3)
EDUC 484 Introduction to Multimedia and Web Authoring (3) Students learn to use technology to improve teaching and learning in any setting or organization where education and communication are critical. Multimedia authoring and web design using graphics, text and sound to convey information and ideas is an integral part of the class. These technology tools include HyperStudio, PhotoShop, Netscape, Claris Home Page, HTML, Macintosh computers and scanners. Teaching and learning projects that are innovative and consistent with exemplary instruction practices form the core activities of the class. These projects focus on the development of learning and information modules created with HyperStudio and the design of educational websites. Grade only. Prerequisite: permission of the instructor.

## EDUC 490 Selected Topics in Education (1-4)

A course designed according to the interest of a particular faculty member, providing opportunities for diversification in content and reading. Grade only.

## EDUC 495 Special Studies (1-4)

EDUC 509 Organization, Administration \& Supervision of Reading (3)

## EDUC 510 SDAIE in Content-Area Classes (3)

EDUC 511 Professional Induction Plan: Sup Dev (1)
EDUC 538 Development of Language \& Thinking: Infancy-Mid Child (3)

EDUC 568 Evaluation in Education (3)
EDUC 570 The Reflective Educator (3)
This is the first in a series of three graduate core courses in the School of Education. Students will take this course at the beginning of the M.A. program. The focus of this course is on philosophical, historical, social, and psychological perspectives in education. Students will examine these perspectives while being encouraged to examine and reflect upon their own professional practices in education. In this course, students will begin to construct a reflective program portfolio that they will continue to modify throughout their M.A. program. The portfolio is intended to be cumulative throughout the graduate core courses. Grade only. Prerequisite: admission to M.A. in education program.

## EDUC 571 Research Paradigms in Education (3)

This is the second in the series of three graduate core courses, and is designed to be taken midway in the master of arts degree program. This course focuses on students as critical consumers of research and includes among its goals the development of skills in the analysis and critique of educational research. The course addresses research and field needs of practicing educators as opposed to the needs of professional researchers and serves to acquaint students with basic principles and techniques of educational research. It also provides students with an opportunity to integrate knowledge of these principles through analyses of action research projects that may serve as the foundation for the culminating master of arts degree project. Grade only. Prerequisite: EDUC 570.

## EDUC 572 Supervised Study for Cognate Project (3)

## EDUC 573 Supervised Study: Individual Exam (3)

## EDUC 574 Introduction to Classroom Research and National

 Board Certification (1-3)This is an introductory course that supports teachers preparing for the National Board for Professional Teaching Standards certification. National Board ((NB) certification is available for general and special education teachers and counselors of students from preschool through grade 12 in a variety of areas. The purpose of this course is to provide an overview of the NB certification process. Specifically, students become familiar with the National Board's five core propositions, certificate area standards, and assessment measures and procedures required for certification. In addition, students will learn about the application process and potential sources of funding. The units from this course can be applied to an M.A. degree in Education at Sonoma State University.

## EDUC 575A Conducting Research on Teaching (3)

This is a second of three courses that support teachers working toward National Board certification. It is also intended for any student interested in conducting action research in schools and classrooms. Students examine exemplary teaching practices and learn about strategies for action research, self-assessment, and reflection on teaching practice. Using their own classrooms as sites for ongoing action research, students apply various research methodologies and engage in data collection through observation, videotaping, and examination of artifacts. In addition, students analyze data and share findings through descriptive, analytical, and reflective writing. Those pursuing National Board certification will also focus on analysis and assessment of National board portfolio entries, and develop action plans for their National Board portfolios. The units from this course can be applied to an M.A. degree in Education at Sonoma State University.

## EDUC 575B Conducting Research on Teaching (4)

This is a second of three courses that support teachers working toward National Board certification. It is also intended for any student interested in conducting action research in schools and classrooms. Students examine exemplary teaching practices and learn about strategies for action research, self-assessment, and reflection on teaching practice. Using their own classrooms as sites for ongoing action research, students apply various research methodologies and engage in data collection through observation, videotaping, and examination of artifacts. In addition, students analyze data and share findings through descriptive, analytical, and reflective writing. Those pursuing National Board certification will also focus on analysis and assessment of National board portfolio entries, and develop action plans for their National Board portfolios. The units from this course can be applied to an M.A. degree in Education at Sonoma State University.
educ 576 Research, Reflection and Professional Practice (4)
This course is designed for teachers to enhance their professional practice through research and reflection. Working collaboratively, teachers complete their portfolios required for National Board certification. In preparation for Assessment Center exercises, teachers engage in extensive review of current and historical perspectives on teaching and learning in their certificate areas. The units from this course can be applied to an M.A. degree in Education at Sonoma State University.

## EDUC 578 Project Continuation (1-3)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. $\mathrm{Cr} /$ NC only.

## EDUC 588 Educational Curriculum (3)

## EDUC 595 Special Studies (1-4)

Independent study designed in consultation with an instructor. Grade only. Prerequisite: Students must complete the standard SSU form and secure the required approvals during the first week of classes.

## EDUC 598 Developing a Thesis/Project (3)

This is the final course in the graduate core courses in education. This course develops students' abilities to carry out a thesis or project and provides basic information for planning and implementing the master of arts degree proposal. The main goal is to provide students with knowledge to begin their thesis or project. Time is provided students to assess progress in the program and to complete portfolio development. Grade only. Prerequisite: completion of all M.A. coursework or taken in final semester of M.A. coursework.

## EDUC 599 Supervised Research for Thesis/Project (3)

Supervised Research provides students with guidance in the completion of their research project. Under the direction of the committee chair, and in consultation with all committee members, students will complete the thesis or project that was developed in EDUC 598 Developing a Thesis/Project. Following completion of the research project, students will participate in a formal presentation of their work to faculty and colleagues. Cr/NC. Prerequisite: completion of EDUC 598. Advancement to candidacy approved.

## Education: Curriculum and Teaching (EDCT)

EDCT 544 Curiculum, Teaching, and Learning in the Content Areas (3)
Examination of curriculum, teaching, and learning in the context of a particular content area as taught in K -12 schools. This course extends and applies the more general theories, practices, and research in curriculum, teaching, and learning established in EDCT 585 and 586. Intended for students in the appropriate Subject Area Cohort Track in the Curriculum, Teaching, and Learning M.A. program. Prerequisites: EDCT 585 and 586.

## EDCT 552 Educational Technology Praxis (3)

Educational Technology Praxis requires students to take a reflexive stance towards the initiation and integration of technological skills and knowledge in authentic instructional contexts and settings. The practical application of technology will be grounded within current perspectives and trends of new media technologies and take into account educational frameworks of learning, design, and pedagogical practice.

## EDCT 556 Technology, Pedagogy and Society (3)

This course relates pedagogical theories to technology integration strategies at various levels of education. The content is focused on how technology and learning are situated -- how socio-cultural issues relate to and influence technological access and use, and power and privilege. Age, gender, race/ethnicity, social class, sexual orientation, language, and social capital and its intersections will also be analyzed.

EDCT 557 Project Management for Educational Technology (3)
This course considers how a small-scale Educational Technology research project can be conducted in an education environment. Case studies will be reviewed to offer practical tools and applied research strategies to students prior to conducting their own Educational Technology thesis or cognate project.

## EDCT 559 Education Media and Internet Resource Development

 (3) This course focuses on critical media literacy and issues related to researching, evaluating, and publishing online. Prerequisite: EDCT 551 or instructor approval.
## EDCT 585 Curriculum Development: Theory, Practice and Evaluation (3)

Analyses of sociopolitical, economic and cultural influences on curriculum development, instructional processes and learner achievement in a variety of instructional settings. Study of the structures of various disciplines, the roles of participants, and other variables in staff and curriculum development. Evaluation of alternative theoretical models for constructing and changing curricula. Grade only. This course is required in the Curriculum, Teaching and Learning and the Preliminary Administrative Services Credential programs. Prerequisites: consent of instructor and approval of the School of Education.

## EDCT 586 Teaching and Learning: Research and Application-

 Classroom (3)An analysis of teaching and learning strategies and instructional variables as they relate to diverse groups of learners. Research will be analyzed in terms of the major paradigms of the field of education. Also included is a review of recent developments in the evaluation of classroom performance and achievement. Grade only. This course is required for the Curriculum, Teaching and Learning program. Prerequisite: consent of instructor and approval of the School of Education.

## Education: Early Childhood Education (EDEC)

EDEC 239 Introduction to Early Childhood Education (3)
Introduction to the theory and practice of early childhood education (from birth to age eight). Topics include: an overview of historical and contemporary models of early childhood education, principles of developmentally and culturally appropriate practices design of appropriate learning environments, collaboration with diverse families and communities, and professional ethics and development. Course requires 15 hours of participant observation in the field. Grade only.

## EDEC 331 Practicum in Child Study (4)

This course is for students who have an interest in understanding the development and learning of young children within early childhood settings. During the first part of the course, students explore the field of child development by learning observational techniques, observing individual children, and participating in their classrooms. During the second part of the course, students use the information gained from observational studies to focus on the educational opportunities for social and emotional development within an early childhood classroom. This course can be used in partial fulfillment of requirements for the California Child Development Permit, and it satisfies the requirement for prerequisite fieldwork for admission to the SSU credential programs. Each student will spend at least 45 hours (approximately 3 hours per week) observing and participating in a preschool, kindergarten, or primary classroom that has been approved by the instructor. Grade only.

## EDEC 420 Child Development in Family, School and

 Сомmunity (3)Students will explore the physical, cognitive, social, emotional, moral, and language development of children from birth through adolescence. The course covers major theories of child development, including critiques and application of the theories as they relate to children from a variety of cultural and family backgrounds. The impact of child-rearing beliefs, poverty, gender issues, and language development are studied as they relate to developmentally-based practices in educational settings. Students will learn effective school-family communication practices for a diverse society, individualized curriculum to meet the needs of diverse learners, and community resources available to support families. This course is a pre-requisite to the Multiple Subjects credential program, can be applied to the Child Development Permit, and satisfies GE category E (the Integrated Person). Grade only.

## EDEC 431 Child Study and Curriculum Practice: Preschool and

 Kindergarten (3)Classroom observation and participation in preschool and kindergarten settings. Twelve hours per week for seven weeks in each setting. Topics include classroom environment, lesson planning, teaching strategies, discipline, and child study and observation. Grade only. Prerequisite: admission to Multiple Subject CLAD Early Childhood Emphasis Credential program or consent of instructor. Must be taken concurrently with EDUC 476 for Multiple Subject CLAD ECE Emphasis students.

## eDEC 437 Integrated Multicultural Curriculum in Preschool

 through Elementary (4)Students will learn to plan and implement developmentally and culturally appropriate curriculum for children in preschool and the early primary grades. The focus is on helping children construct knowledge through an integrated approach that includes all curriculum areas, with emphasis on the development of literacy and mathematics skills and concepts. Students learn to use play-based and teacherinitiated activities to create well-balanced curriculum that aligns with the California Preschool Learning Foundations and the California Curriculum Frameworks for grades K -2. Students will learn to use assessment to evaluate curriculum effectiveness and to inform future curriculum decisions. This course can be used in partial fulfillment of requirements for the California Child Development Permit, and it satisfies the requirement for prerequisite fieldwork for admission to the SSU credential programs. Each student will spend at least 45 hours (approximately 3 hours per week) observing and participating in a preschool, kindergarten, or primary classroom that has been approved by the instructor. Grade only.

## EDEC 505 Action Research in Preschool and Elementary

 Classrooms (3)Techniques for conducting ethnographic action research in preschool and elementary settings. Theory and research relating to children's construction of friendships and peer group processes are discussed. Special emphasis is placed on inclusion and exclusion in classroom peer cultures. Grade only.

## EDEC 530 Teaching to Diversity (3)

Since most aspects of education are influenced by culture, this course is designed to analyze education as a cultural process. The multicultural nature of today's society in California and the United States makes it imperative for educators to include multiple approaches to teaching and learning. This course reviews theoretical and practical perspectives of cultural diversity, crosscultural contact and culturally sensitive pedagogy, particularly for limited English proficient students. Grade only. Prerequisite: permission of instructor.

EDEC 531 The Role of Play in Development and Learning (3) Students will examine theories from developmental psychology, education, and anthropology to look at the role of play in human experience, from infancy to adulthood. The history of play in educational practice and its relationship to concepts such as ritual, work, and friendship are traced through the study of games, traditional rhymes, fairy tales, and humor, from a variety of cultural perspectives. Topics include playis relationship to learning in all areas of development and academic disciplines, effects of technology and culture on children's play, gender development and play, play environments, play therapy, and play as a tool for developmentally and culturally sensitive curriculum and assessment. Grade only. Prerequisite: graduate student in Education or permission of instructor. Taught fall semester of odd years.

## EDEC 532 Social-Moral Development in Early Childhood Edu-

 cation (3)Students will explore theories and research addressing social and moral development from infancy through middle childhood. Topics include: attachment and its role in social and moral development, research on the development of prosocial behavior and the ability to take the perspective of others, cultural value differences, gender identity and gender role socialization, development of friendships, resiliency and at-risk children, curriculum that promotes children's social and emotional development, and working with parents to promote children's social and emotional development. Students will plan, implement, and report on action research projects that answer specific questions dealing with social, moral, and emotional development in early childhood education. Grade only. Prerequisite: graduate student in Education or permission of instructor. Taught fall semester of even years.

## EDEC 534 First and Second Language Curriculum in Preschool

 and Primary (3)Students explore the nature and development of developmentally and culturally appropriate practice in schools with diverse populations, including the development of listening, speaking, reading and writing in first and second languages. From observations of children's language, play and projects in a variety of settings, students will explore the socio- and psycholinguistic underpinnings of communicative competence, emerging literacy and conceptual development in both home and second languages. Strategies for linking children's home and school experiences with holistic, interactive and integrated curriculum will be emphasized as well as a variety of strategies for specially designed academic instruction in English (SDAIE). Grade only.

## EDEC 535 Lead Advocacy for Children and Families (3)

A critical examination of current policy issues related to the inclusion of families in schools, including bilingual education, family literacy programs, Head Start and Even Start, and coordinated services for families and children from diverse cultural, linguistic and socioeconomic background within school settings. Each student will propose and complete a field-based project touching upon one or more of these areas of professional expertise as part of the development of a leadership and advocacy portfolio for the course. Applicable to the Child Development Permit.

## eDEC 537 Authentic Assessment in Preschool and Primary

 Programs (3)This course examines how and what we can learn about children from birth through the primary grades in terms of their cultural backgrounds; physical, cognitive, social, and emotional development; language and literacy development; and academic performance. Different methods of studying and assessing children in both their first and second languages are explored, including observational techniques, clinical interviews, ethnographic methods, and portfolio development. The integration of curriculum and assessment to meet the needs of children and families from diverse cultural, linguistic, and economic backgrounds is stressed. Grade only. Prerequisite: graduate student in Education or permission of instructor. Taught spring semester of odd years.

EDEC 538 The Development of Language and Thinking: Infancy through Middle Childhood (3)
This course addresses the development of children from birth through middle childhood with emphasis on the relationships between language development and cognitive development. We will study the ideas of major theorists: Piaget, Erikson, Bruner, Vygotsky, Mead, and othersíwho address the development of childrenıs representational thinking, language, and cross-cultural and family influences on development and learning. We will also explore current research on brain development in the first five years of life from a critical perspective and with an emphasis on practical implications. We will study current research and theories of cognitive, social, and emotional development as related to oral, written, and spoken language development in home and in school/care environments. The development of both first and second languages will be examined. Grade only. Prerequisite: graduate student in Education or permission of instructor. Taught spring semester of even years.

EDEC 539 Research Early Childhood Education (3)
Critical analysis and evaluation of qualitative and quantitative research in Early Childhood Education, and implications for curriculum in schools and care programs serving children infancy through the primary grades of elementary school are addressed. Research and policy studies addressing quality indicators in programs for young children across all areas of curriculum are included, as well as factors such as the physical environment, schedules, and teachers' professional development. The focus is on integration of research findings and methodologies to improve the quality of programs designed to serve young children and their families. Grade only. Prerequisite: permission of instructor or acceptance to Master of Arts in Education program.

## EDEC 578 Project Continuation (1-3)

## EDEC 593 Approaches to Schooling Early Childhood Education

 (3)Historical and philosophical perspectives on the care and education of young children from early centuries to the present day, including models from Europe, China, Japan, Africa and Latin America. Topics include the roles of the child and the teacher, design of curriculum and environments for learning, and approaches to diversity in classrooms and communities. Grade only.

EDEC 595 Special Studies (1-4)

## Education: Leadership (EDEL)

EDEL 580A Introduction to Education Leadership and School Management (3)
This course is the introductory course for the Sonoma State University Preliminary Administrative Services Credential program. Candidates examine concepts of leadership, school culture, the dynamics involved in change, democratic decisionmaking and school governance, diversity, frames of reference, and the roles of an educational leader. Current practices are examined with a view of rethinking schools for the 21st Century based on developing educational leadership values. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

## EDEL 580B Advanced Educational Leadership and School

 Management (3)This course is designed as the culminating course in the Preliminary Administrative Services Credential Program. The goal of the course is to learn successful strategies and approaches involved in school improvement and ways to develop the school as an organization. Candidates engage in a self-assessment of their skills and abilities and personal theory of leadership in preparation for administrative positions. Grade only. Prerequisites: Admission to the Preliminary Administrative Services Credential Program and EDEL 580A.

EDEL 581 Management of Educational Personnel: Policies and Procedures (3)
Candidates examine human resource administration as it relates to educational leadership and develop an understanding of the importance and dimensions of issues related to human resources that lead to positive and productive educational settings. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

## EDEL 582 Educational Policy and Politics (3)

This course is an examination of federal, state, and local politics and policy and their effects on school districts and schools. Emphasis is placed on the issues of educational reform, accountability and finance. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

## EDEL 583 School Law (3)

This course is a study of the governance of school and the various sources of regulation impacting education. Case studies and application of various sources of law are explored, including student rights, torts, first amendment issues, special education law, teacher rights, contracts, church and state issues, and discipline. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

EDEL 587A Beginning Field Experience in Administration (3) Intensive field experience in school administration that extends learnings and competencies in program coursework. Prerequisites: admission to the Preliminary Administrative Services Credential program and consent of instructor.

## EDEL 587B Advanced Field Experience in Administration (3)

 This course is the completion of the fieldwork requirement for the program. Candidates provide evidence that they have successfully met all six administrative standards in their fieldwork experiences. Each student completes field assignments and projects that apply learning to educational settings. Cr/NC. Prerequisites: Admission to the Preliminary Administrative Services Credential Program and EDEL 587A.
## EDEL 588 Educational Curriculum, Instruction and Program

 Assessment (3)Candidates study curriculum theory and curriculum ideologies found in public and private schools. Candidates examine the relationship between standards and curriculum design. The candidate learns how to plan and evaluate curriculum and the critical role of the administrator as an instructional leader. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

## edel 589 Leadership for Diverse Populations and Communities

 (3)This course is designed for candidates to reflect on their own culture and to better understand the point of view of a variety of cultures, ethnic groups, special groups in a diverse society. The goal of the course is to learn successful strategies and approaches involved in working with very diverse communities and how a leader can move their school or district towards high levels of cultural proficiency. The course examines the guiding principles and essential elements of cultural proficiency. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

## EDEL 590A Induction Plan (2)

Students develop, in consultation with their employer and SSU program faculty, an induction plan that meets the Professional Administrative Services Credential requirements. The plan reflects an assessment of the administrator's strengths and needs, future professional goals, and requirements of the position in which the student works. Cr/NC. Prerequisite: Admission to the Professional Administrative Services Credential Program.

EDEL 590B Assessment of Completion of the Induction Plan (2) During the final seminar the Professional Administrative Services Credential (PASC III), the candidate, in conjunction with program faculty and the employing school district, evaluates the degree of completion of the induction plan proposed in EDEL 590A. The competency review includes the development of an on-going future professional development plan that reflects student strengths and areas of need identified during the PASC II Program. Cr/NC. Prerequisites: Admission to the Professional Administrative Services Credential Program and EDEL 590A.

## EDEL 595 Special Studies (1-4)

EDEL 596A Introduction to Advanced Educational Problems (2) Students will be involved in site-based problem solving and analysis, the generation and field implementation of appropriate solutions, and an evaluation of the chosen solutions. Planning, discussion, monitoring, coaching and evaluation will occur in a seminar setting. Cr/NC only. This course is part of the Professional Administrative Services Credential program. Prerequisites: EDUC 590A, possession of Preliminary Administrative Services Credential, and admission to the Professional Administrative Services Credential program.

EDEL 596B Completion of Advanced Educational Problems (2) Same as EDUC 596A. Cr/NC only. Prerequisites: EDUC 590A, a Preliminary Administrative Services Credential, and admission to the Professional Administrative Services Credential program.

EDEL 596C Introduction to Collaborative Action Research (2) Same as EDUC 596A. Cr/NC only. Prerequisites: EDUC 590A, possession of Preliminary Administrative Services Credential, and admission to the Professional Administrative Services Credential program.

EDEL 596D Completion of Collaborative Action Research (2)
Same as EDUC 596A. Cr/NC only. Prerequisites: EDUC 590A, possession of Preliminary Administrative Services Credential and admission to the Professional Administrative Services Credential program.

## Education: Multiple Subject (EDMS)

EDMS 100 Explorations in Teaching (2)
This seminar is designed as a reflection space for students who are considering the teaching profession. They will observe and interact with children and teachers in elementary schools, as well as read about forces that shape teachers and issues they confront in our educational system. They will analyze what it means to be a teacher today in our elementary schools, facing the challenges of diversity, equity and quality of education.

EDMS 200 Being a Teacher in Today’s Schools (2)
This seminar continues the process of exploration, building on ED/LIBS 100, where students discussed what it means to be a teacher in our schools today. Here the focus is on the student in elementary education. From an educational perspective, students will consider what it means to be a student; what forces and circumstances shape their identity and their journey as students in elementary education. Students will elaborate their teaching philosophy throughout the semester, interweaving information from their own lives as students, from the readings and from their field observations.

EDMS 411 Teaching Second Language Learners (3)
This course examines first and second language acquisition and major second language teaching methodologies in relation to children's language development in school settings. In line with state standards, the purpose of this three-unit course is to help students learn and apply a variety of theories, methods, materials, media, and strategies to provide instruction that is appropriate to assessed proficiency levels and needs of English learners and to make academic content accessible. Focus is on instructional principles and practices for learner development of comprehensive English language and literacy skills as well as academic language proficiency. The main goal is to learn to help all students become active, engaged, and independent learners.

## EDMS 463 Teaching Reading and Language Arts to Younger

 Students (3)Philosophy, goals, and pedagogy in reading and language arts in grades K-3. Candidates examine early literacy development and teaching/learning processes in relation to state content standards. They learn to assess and build upon students' oral and written language strengths with attention to print awareness, language cueing systems, functions and conventions of oral and written language, literature study and composing strategies. Grade only.

EDMS 464 Teaching Reading and Language Arts to Older Students and Struggling Readers (2)
Philosophy, goals, and pedagogy in reading and language arts in grades 3-8. Designed for student teachers to refine and extend their knowledge of literacy development and teaching/learning processes in language arts. Candidates design and teach literacy lessons in their classrooms and work with struggling readers using assessment data and state content standards. Emphasis is on reading and writing across the curriculum, and meeting the literacy needs of all learners. The PACT teaching event is scaffolded in this course. Grade only.

## EDMS 470 Multicultural Pedagogy (3)

Through multicultural approaches, activities, and materials, candidates examine the ways in which culture, ethnicity, race, class, gender, language, disability, and family structure impact teaching and learning. Candidates consider the different beliefs, identifies, cultural knowledge, and social relationships that a diverse student population brings to the classroom, and develop multicultural teaching strategies.

## EDMS 471 Teaching Social Sciences in a Multicultural

## Soceity (2)

Credential candidates develop their pedagogical content knowledge in social studies, and explore K-8 educational practices that establish social studies as a catalyst for promoting civic responsibility and cultural understanding. Upon course completion, students will gain experience with integrating literature, primary documents, secondary resources, technology, hands-on activities, and the arts into their social studies curriculum. Students will also become familiar with state and national standards to inform curricular decisions.

## EDMS 474 Mathematics in the Elementary School (3)

Methods, principles, goals, and materials for elementary mathematics teaching. This course develops effective strategies and techniques for planning, teaching, assessing and adapting mathematics instruction; explores current practices, issues, and resources in mathematics education; deepens students' understanding and appreciation of elementary mathematics; and builds knowledge of children's mathematics thinking, learning, development, and diversity. Learner-centered, meaningful mathematics instruction is modeled and analyzed throughout. Course content is aligned with national professional standards and California content and performance standards.

## EDMS 475 Science in the Elementary School (3)

Methods, principles, goals, and materials for elementary science teaching. This course develops effective strategies and techniques for planning, teaching, assessing and adapting science instruction; explores current practices, issues, and resources in science education; deepens students' understanding and appreciation of elementary science; and builds knowledge of children's science thinking, learning, development, and diversity. Learner-centered, meaningful science instruction is modeled and analyzed throughout. Course content is aligned with national professional standards and California content and performance standards.

## EDMS 476F Participant Observation (3)

Fifteen week field placement (approximately 14 hours per week). Candidates observe classroom routines, activities, curriculum materials and instruction for each subject area. Candidates implement curriculum that is sensitive to students' language needs and is open to considerations of diversity. Plan for small and whole group instruction. Prerequisites: Certificate of Clearance, negative TB, CSET, School of Education Legal Seminar, EDUC 417 (or LIBS equivalent), EDEC 420 (or LIBS equivalent). Cr/NC only.

## EDMS 476S Participant Observation Seminar (2)

On-campus seminar. Components include lesson planning, peer observation, digital portfolio, physical education and classroom management. Grade only.

## EDMS 481A Internship Supervision (3)

This multiple-session supervision and seminar topics address professional issues faced by MS interns. Issues in education are examined through the perspectives of theoretical and practice-based research and the educational foundations of history, philosophy, sociology, anthropology, and politics of education. Interns will analyze their current classroom practices and influences on their teaching, conduct teacher research, and develop a professional portfolio consistent with their district professional growth plan and internship individual learning plan. $\mathrm{Cr} /$ NC only.

EDMS 481B Internship Supervision (3)
This multiple-session supervision and seminar topics address professional issues faced by MS interns. Issues in education are examined through the perspectives of theoretical and practice-based research and the educational foundations of history, philosophy, sociology, anthropology, and politics of education. Interns will analyze their current classroom practices and influences on their teaching, conduct teacher research, and develop a professional portfolio consistent with their district professional growth plan and internship individual learning plan. $\mathrm{Cr} /$ NC only.

## EDMS 481C Internship Supervision (3)

This multiple-session supervision and seminar topics address professional issues faced by MS interns. Issues in education are examined through the perspectives of theoretical and practice-based research and the educational foundations of history, philosophy, sociology, anthropology, and politics of education. Interns will analyze their current classroom practices and influences on their teaching, conduct teacher research, and develop a professional portfolio consistent with their district professional growth plan and internship individual learning plan. $\mathrm{Cr} /$ NC only.

## EDMS 481D Internship Supervision (3)

This multiple-session supervision and seminar topics address professional issues faced by MS interns. Issues in education are examined through the perspectives of theoretical and practice-based research and the educational foundations of history, philosophy, sociology, anthropology, and politics of education. Interns will analyze their current classroom practices and influences on their teaching, conduct teacher research, and develop a professional portfolio consistent with their district professional growth plan and internship individual learning plan. $\mathrm{Cr} /$ NC only.

## EDMS 482F Student Teaching and Seminar (10)

Fifteen week student teaching ( 4.5 days per week). Candidates implement curriculum that is sensitive to students' language needs and issues of diversity. Teaching small and whole group instruction leads to teaching the entire curriculum and managing the school day during a two week take over. Prerequisites: CBEST and Subject Matter or CSET, EDMS 476F and Phase I courses. Corequisite: EDMS 464. $\mathrm{Cr} / \mathrm{NC}$ only.

## EDMS 482S Student Teaching Seminar (2)

On-site student teaching seminar that covers all aspects of student teaching including the digital protfolio and becoming a reflective educator. Students meet with their supervisors every week on-site. Taken concurrently with EDMS 482F.

## EDMS 495 Special Studies (1-4)

## Education: Reading and Language (EDRL)

EDRL 507 Research in Language and Literacy (3)

Critical analysis and evaluation of theory and research in reading and language and the implications for curriculum. A focus of the course is literacy. Students may pursue projects on literacy at any age. Grade only. Prerequisite: admission to the reading/language or early childhood education M.A. program.

## EDRL 521A Language Dev in First and Second Languages (3)

 Research and theory in oral and written language development in home and subsequent languages, and the relationship between literacy learning and teaching. Special attention is given to factors that promote concept development and confident effective language use. Attention to the structure of the English language, including phonology, orthography, morphology, syntax and semantics. Contributions from many fields, (e.g., psycholinguistics, sociolinguistics, anthropology, and developmental psychology) provide perspectives for analysis of language acquisition and learning, evaluation of current educational practice, and planning for effective classroom experiences. Transfer strategies from primary language reading skills into English language reading skills are presented based on the tenets of effective language acquisition.
## edRL 521B Reading and Language Arts in First and Second Languages (3)

Research, theory, and practice focused on written language development in home and subsequent languages. Students read, discuss and critique theory and research into processes of reading and writing, with an emphasis on writing and written communication. Includes the theoretical foundation of assessment approaches for documenting reading and language arts progress and the relationship between literacy learning and teaching. Topics include sociolinguistic and psycholinguistic factors in reading and writing development, assessment-based reading and writing instruction for English language learners and struggling readers, emergent literacy at all ages, comprehension and study strategies, instructional planning, and evaluation and intervention approaches. Students develop a comprehensive set of strategies for promoting fluent reading, confident writing, and purposeful conversation for diverse student populations. Grade only. Applicable to the reading/language program. Prerequisite: approval of the program.

## EDRL 522 Assessment and Teaching in Reading and Language Arts (3)

Principles and procedures for literacy and content learning in English in classrooms with bilingual/bicultural students, as well as the design and selection of materials, methods and contexts for literacy and content instruction at all ages. This course also focuses a variety of strategies for Specially Designed Academic Instruction in English (SDAIE) Field Studies. Applies to concentration in reading/ language. Grade only. Prerequisite: approval of the program.

## EDRL 523 Curriculum Development in Language and Literacy (3) Critical analysis and development of learning-centered language and literacy curriculum. Evaluation and selection of materials for instruction. Grade only. Applicable to the reading/language program. Prerequisite: approval of the program.

## EDRL 524 Literature and Literacy (3)

Study of children's and adolescents' literature, authors and ways of using literature in the classroom. Grade only. Applicable to the reading/language program. Prerequisite: approval of the program.

EDRL 525 Leadership and Policy in Literacy Programs (3)
An investigation of decision making and policies for teaching reading and writing and program coordination; current influences, such as cross-cultural and multilingual classrooms, testing, technology, and community involvement. Extensive field experience. Grade only. Applicable to the reading/language program. Prerequisite: approval of the program.

## EDRL 527A Clinical Field Experience in Reading and Language

 Arts (3-6)Supervised practicum for Certificate candidates. In a Reading and Writing Workshop format, candidates work with K-12 students under the supervision of and in collaboration with clinical faculty and Reading and Language Arts Specialist Credential candidates. Certificate candidates are assigned to students based on the candidate?s? prior program coursework and professional background, in order to assure diversity of experience with readers and writers of varying ages and abilities. Certificate candidates conduct formal and informal assessments and plan instruction and intervention for students in the clinic. Based on assessment findings candidates collaborate in the delivery of appropriate instruction and interventions that utilize learners? strengths in order to address their needs. Candidates participate in clinical conferences and write reports in which they summarize and critique assessment findings and the success of the instruction. Opportunities will be available for candidates to work with beginning readers, struggling readers at different levels, English language learners, and successful readers and writers.

## EDRL 527B Advanced Clinical Field Experience in Reading and Language Arts (3-6)

Supervised practicum for Reading and Language Arts Specialist Credential candidates. In a Reading and Writing Workshop format, Credential candidates supervise Certificate candidates as they work with K-12 students. In turn, Credential candidates are supervised by university and clinical faculty. In collaboration with clinical faculty and other Credential candidates, they assume leadership roles, overseeing all assessment and instructional practices of Certificate candidates and directing all clinic activities. Specialist Credential candidates play a major role in clinical conferences and in the preparation of clinical reports. They also work directly with students in the clinic, providing demonstration of appropriate assessment and intervention strategies and to extend their experience with readers and writers of varying ages and abilities. Opportunities will be available for candidates to work with beginning readers, struggling readers at different levels, English language learners, and successful readers and writers.

## EDRL 529 Evaluation in Reading and Language Arts

 Programs (3)Philosophy, purposes, and procedures for evaluation of reading, writing, and oral language. Students examine a variety of evaluation tools and procedures (formal and informal, group and individual) with respect to how teachers can use these instruments and procedures to inform literacy instruction and intervention for diverse populations. Selected procedures are used with struggling readers to identify their reading and writing strengths and needs. Topics include the role of the literacy environment in evaluation results, methods of reporting progress to students, parents, and administrators, and the role of standardized testing in schools. Students develop criteria for reading and language arts program evaluation, maintenance, and enhancement.

## EDRL 595 Special Studies (1-4)

## Education: Special Education (EDSP)

## EDSP 400 Foundations of Special Education (3)

In this course, students are presented with the history, philosophy and legal requirements related to the implementation of special education services for students with disabilities and their families. Foundational knowledge on typical and atypical human development, examination of disability risk conditions, understanding the Individualized Education Program (IEP) framework and process and the importance of the role of family, school and community in supporting the well being of individuals with disabilities is provided. Additional emphasis is placed on understanding and examining diverse learners and their families within the context of special education, Class readings and course assignments are integrated within this class to establish the connection from special education theory to practice culminating the development of a personal philosophy of special education.

## EDSP 421A Effective Practices that Support Students with Diverse Learning Needs (3)

## EDSP 421B Early Field Placement (1)

## EDSP 421C Using Educational and Assistive Technology (1)

## EDSP 422 Collaborative Partnerships and Special Education (4)

Candidates are presented with theory, concepts and practices related to the implementation of special education services for students with disabilities and their families. Foundational knowledge on the identification of disabilities, service delivery models, and the legislative framework that mandates key special education practices are explored. Additional emphasis is placed on the communication, consultation and collaboration skills useful in forming productive partnerships with families, school personnel and community service providers. Coursework and field assignments are integrated to support the development of a personal philosophy of special education that links theory to practice. Grade only. Prerequisite: Admission to the Education Special Credential program or by permission of the instructor.

## EDSP 422A Case Management and Transition Planning in

 Special Education (3)In this course and accompanying seminar, students will explore the communication and collaboration skills necessary for effective case management and transition planning for individuals with exceptional needs, Emphasis is placed on examining the skills, models and strategies for successful collaboration in the context of special education service delivery requirements and models. Additional emphasis is placed on developing a comprehensive case management system as well as planning, implementing and evaluating transition services across the lifespan for all learners. Class readings, course assignments and specific fieldwork activities (422B) are integrated within these classes to establish the connection from theory to practice culminating in the development of a case management notebook, Concurrent enrollment in EDSP 422A and 422B is expected.

## EDSP 422B Participant Observation/Fieldwork (1)

In this course and accompanying seminar, students will explore the communication and collaboration skills necessary for effective case management and transition planning for individuals with exceptional needs, Emphasis is placed on examining the skills, models and strategies for successful collaboration in the context of special education service delivery requirements and models. Additional emphasis is placed on developing a comprehensive case management system as well as planning, implementing and evaluating transition services across the lifespan for all learners. Class readings, course assignments and specific fieldwork activities (422B) are integrated within these classes to establish the connection from theory to practice culminating in the development of a case management notebook, Concurrent enrollment in EDSP 422A and 422B is expected.

EDSP 423 Assessment, Curriculum and Instructional Strategies for Students with Disabilities (4)
Candidates explore the basic principles and strategies of assessment, curriculum, and instruction that are appropriate for individuals with diverse special education needs. Candidates learn to assess student needs utilizing a variety of formal and informal assessments and to develop appropriate goals and learning objectives based on assessment findings. The linkage between assessment, curriculum, and instruction is emphasized, including monitoring of student learning. Legal, ethical, and diversity issues related to assessment are explored. Eligibility criteria and characteristics of students with disabilities are also a focus of this course. Grade only. Prerequisite: Admission to the Education Specialist Credential program or by permission of the instructor.

## EDSP 424 Classroom Ecology: Management, Discipline and

 Behavioral Supports (4)EDSP 424 provides candidates with an overview of both class-wide and individual classroom behavior management. Theories and philosophies of creating classroom ecologies, management strategies, discipline and behavioral supports are considered to inform how special educators teach and enforce pro-social behavior for all students. Functional assessment and analysis are used to develop positive behavior support plans for children with more significant behavior needs. The goal of this course is to help candidates learn to promote the social competence, selfmanagement and communication skills of students with special needs through behavior support. Grade only. Prerequisite: Admission to the Education Special Credential program or by permission of the instructor.

## EDSP 425 Dev Acad Performance-Mild/Moderate (4)

EDSP 425 is designed to provide candidates in the Education Specialist mild to moderate disabilities credential program with a research-based perspective on developing academic performance for students with mild to moderate disabilities. The relationship among assessment, curriculum, and instruction is investigated through the examination and application of a variety of informal assessments, instructional strategies and curricula within the context of access to the core curriculum and content standards. Curricular modifications and instructional strategies that support students with mild/moderate disabilities in inclusive settings are explored. Coursework follows a "theory into practice" format consisting of classroom simulations, visitations, guided activities, and student projects using field-based lessons. Grade only. Prerequisite: Admission to the Education Special Credential program or by permission of the instructor.

## EDSP 428 Professional Seminar: Topics in the Education of

 Students with Moderate/Severe Disabilities (4)EDSP 428 is designed to provide candidates in the Education Specialist moderate to severe disabilities credential program with a research-based perspective on developing skills that are functionally tied to real world demands and that are referenced as the requirements for successful inclusion in school, community and workplace. The relationship among assessment, curriculum, and instruction is explored through the examination and implication of a variety of informal assessments, instructional strategies and curricula. Curricular modifications and instructional strategies that support students with moderate/severe disabilities in inclusive settings are investigated within the context of access to the core curriculum and content standards. Topics include medical and health issues and competencies for teachers of students who are medically fragile or have multiple disabilities and the building of the circle of supports for learners with significant disabilities and health-related needs. The concepts of the "least restrictive environment," dignity of risk, school to work transition, self-advocacy, and inclusive communities are explored. Grade only. Prerequisite: Admission to the Education Special Credential program or permission of the instructor.

## EDSP 430 Special Education for Teachers (4)

A survey course that presents theory, program concepts, and teaching practices related to students with special educational needs. Legislation, public policy, and advocacy related to the full inclusion of students with special needs into the least restrictive environment are reviewed. Additionally, assessment, curriculum and instructional modifications designed to accommodate learners with diverse backgrounds (cultural, linguistic, socioeconomic) and abilities are addressed. Thirty hours of required field experience are an integral part of the course. Grade only. This course meets the special education requirements to convert a basic credential to a Professional Clear Credential and is a required beginning course for students in the Education Specialist Credential program.

## EDSP 432 Designing Inclusive Environments in Early Childhood Education (4)

An introduction to theories, research, and practices related to providing appropriate services for young children with special needs (birth through 8). Topics include: early identification of exceptional needs, collaborative partnerships for inclusive education, the role of parents, strategies and resources for supporting the educational, social, behavioral and/or medical needs of young children, and the requirements of special education laws. Grade only.

## EDSP 433 Teaching Adolescents with Special Education Needs

 (3)EDSP 433 is an introductory course which presents a survey of theory, program concepts and teaching practices related to students with special needs. Emphasis is placed on understanding and addressing the educational and social needs of secondary aged students with disabilities as well as gifted and talented students. Legislation, policies, and practices pertaining to the education of students with special needs in a secondary setting are presented. Knowledge, skills, and strategies including disability and gifted and talented identification, major roles and responsibilities in the Individual Education Program (IEP) process and collaboration between general and special educators aimed at successful inclusive educational practices are also addressed. 30 hours of field experience are included. Elements of this course will include the use of the Internet and the World Wide Web.

## EDSP 464A Participant Observation (2)

Provides an early fieldwork experience for education specialist credential candidates not currently working in special education as Interns. Candidates become acquainted with the daily operation of a special education classroom within the context of the school and the community. 90 hours observation and participation in a special education classroom during which the candidate observes curriculum, instruction, classroom ecology, IEP meetings and assessment. Cr/NC, Prerequisite: Admission to Education Special Credential program. Requires concurrent enrollment in EDSP 464B.

## EDSP 464B Participant Observation: Seminar (2)

This seminar, to accompany EDSP 464A, allows candidates to discuss and evaluate their experiences observing in special education classrooms, with a focus on the social context of the classroom, school and community. The roles of specialists and others working in collaboration with the special educator are investigated and links between theory and practice are explored. Grade only. Prerequisite: Admission to the Education Special Credential Program. Required concurrent enrollment in EDSP 464A.

EDSP 465 Practicum: Mild/Moderate Disabilities (10)
EDUC 465 represents the student teaching component of the Mild/Moderate Disabilities credential program. Student teaching is a culminating experience that must occur in the final semester of the program. Credential candidates student teach for 12 weeks under the guidance and supervision of a duly selected master teacher in the schools as well as a university supervisor from Sonoma State University. Student teaching sites are selected to reflect current prevailing practices in the education of learners with mild or moderate disabilities. Thus, resource specialist programs, special day classes, transitional classes, inclusion programs, and "non-public schools" certified by the California Department of Education all represent possible placement sites for student teachers. Candidates may receive student teaching credit for assignments where they are also the "teacher of record," or otherwise employed, contingent on suitable supervision and guidance availability on-site. Cr/NC only. Prerequisites: Admission to the Education Specialist Mild/Moderate Disabilities credential program, and EDUC 422, EDUC 423A, EDUC 424A. Corequisite: EDUC 466.

## EDSP 466 Seminar: Mild/Moderate Disabilities (2)

EDUC 466 represents the seminar which accompanies the student teaching component of the Education Specialist Mild/Moderate Disabilities Credential program. The seminar is designed to provide a problem-solving forum for the myriad of educational, social, and psychological issues which tend to arise as part of student teaching. Guidance and support aimed at a successful student teaching experience is offered through EDUC 466. In addition to the instructor of EDUC 466, occasional guest visits by student teaching supervisors, resident teachers, and school administrators will complement the class sessions. Candidates will also be provided time to form cooperative support groups around commonalities of assignment or problem areas. Cr/NC only. Prerequisites: Admission to the Education Specialist Mild/Moderate Disabilities Credential program, EDUC 422, EDUC 423A, EDUC 424A. Corequisite: EDUC 465.

## EDSP 460 Teaching Event Seminar (4)

## EDSP 467 Practicum: Moderate/Severe Disability (10)

EDSP 467 represents the student teaching component of the Education Specialist Moderate/Severe Disabilities Credential program. Student teaching is a culminating experience that must occur in the final semester of the program. Credential candidates student teach for 12 weeks under the guidance and supervision of a duly selected master teacher in the schools as well as a university supervisor from Sonoma State University. Student teaching sites are selected to reflect current prevailing practices in the education of learners with moderate or severe disabilities. Thus, resource specialist programs, special day classes, transitional classes, inclusion programs, and "non-public schools" certified by the California Department of Education all represent possible placement sites for student teachers. Candidates may receive student teaching credit for assignments where they are also the "teacher of record," or otherwise employed, contingent on suitable supervision and guidance availability on-site. Cr/NC only. Prerequisites: Admission to the Education Specialist Moderate/Severe Disabilities credential program, and EDUC 422, EDUC 423A, EDUC 424A. Corequisite: EDUC 468.

## EDSP 468 Seminar: Moderate/Severe Disabilities (2)

EDUC 468 represents the seminar that accompanies the student teaching component of the Education Specialist Moderate/Severe Disabilities Credential Program. The seminar provides a problem-solving forum for the myriad of educational, social, and psychological issues which tend to arise as part of student teaching. Guidance and support aimed at a successful student teaching experience is offered through EDUC 468. In addition to the instructor of EDUC 468, occasional guest visits by student teaching supervisors, resident teachers, and school administrators will complement the class sessions. Candidates will also be provided time to form cooperative support groups around commonalities of assignment or problem areas. Cr/NC only. Prerequisites: Admission to the Education Specialist Moderate/Severe credential program, EDUC 422, EDUC 423A, EDUC 424A. Corequisite: EDUC 467.

## EDSP 481 Internship Practicum/Seminar (4)

This course provides on-going support and guidance to Internship teachers serving diverse learners with special needs. The course focuses on examining the California Standards for the Teaching Profession and connecting these standards with university coursework and the Internship's teaching experience. This is a hybrid course in which teachers meet in a seminar format (face to face) and in an online format. The course focuses on problem solving using the standards, university courses, and individual teaching experiences as frames of reference. Learning from and supporting other interns by sharing individual teaching experiences is the major emphasis of this course as well as offering support in developing the program portfolio. In addition to the seminar, the practicum will provide support and guidance to interns in their classrooms. On-site support teachers and university faculty will visit teacheris classrooms, conference with teachers about their needs, observe classroom practices, and provide feedback on observations.

## EDSP 490B Autism Spectrum Disorders: Seminar and Fieldwork

 (2)This practicum and attached seminar will provide candidates with the opportunity to implement evidence-based practices with students diagnosed on the autism spectrum. Candidates will also engage in progress monitoring and the selection and administration of appropriate assessment measures. The seminar will extend candidate understanding of the service delivery options available to students with Autism Spectrum Disorders.

EDSP 501 Formative Assessment and Induction into Teaching (3)
Education 501 is the initial course in the Professional Induction Credential program for the Educational Specialist Credential Program. This course offers (1) a forum for the development of an individualized plan for the induction of new special education teachers into the profession of Special Education, (2) a format for self reflection and evaluation of teaching practices through the analysis of teaching videos, (3) the development of an applied field project developed in response to the teachers' areas of professional needs and interests, and (4) opportunities to participate in a Professional Learning Community. The Individual Learning Plan or similar Induction Plans developed during Preliminary Level I program forms the basis of the development of the Professional Induction activities. The candidates develop the Induction Activities with support and approval of their university instructor and school district mentor/support provider and within a research-based perspective.

## EDSP 502 Advanced Pedagogy in SPED (3)

Candidates will deepen their understanding of pedagogies most effectively and equitably used to support the learning and behavioral needs of children with disabilities as well as children with disabilities who are also English language learners. Multiple assessment measures, including progress monitoring tools, will be linked to instructional planning to differentiate lessons according to student needs within the context of grade level standards and curriculum frameworks.

## EDSP 503 Leadership Law and Advocacy in Special Education (3)

## EDSP 504 Formative Assessment and Induction Culmination (3)

EDSP 511 Professional Induction Plan: Sup Dev (1)
EDUC 511 is the initial course in the Professional Level II Education Specialist Credential program. This course offers a forum for the development of an individualized plan for the induction of new special education teachers into the profession of Special Education. The Individual Learning Plan developed during Preliminary Level I forms the basis for development of the induction plan. The Professional Induction Plan is developed in response to the new teachers' areas of professional needs and interests. It is developed by the candidate with University faculty, school district mentors/ support providers, and other teachers. Cr/NC only. Prerequisite: Admission into the Professional Level II Education Specialist Credential program.

EDSP 512 Advanced Issues in Assessment, Curriculum, and Instruction for Students with Disabilities (3) EDUC 512 is part of the Professional Level II Education Specialist Credential program. Foundational knowledge in assessment, curriculum, and instruction is extended within EDUC 512. Candidates gain advanced skills in planning, conducting, reporting, and utilizing a variety of assessments, and in integrating assessment results into instructional planning. Issues such as assessment bias and research, law, and policies and procedures pertaining to the assessment process are addressed. Broad curricula areas including vocational development and community living preparation, diverse instructional approaches, and educational technologies are also addressed. Adaptation and modification of assessment, curriculum, and instruction to meet the individuals needs of students with disabilities is a course focus. Prerequisite: Admission into the Professional Level II Education Specialist Credential Program.

## EDSP 495 Special Studies (1-4)

## EDSP 513 Current and Emerging Research and Practice in

 Special Education (3)EDUC 513 is part of the Level II Education Specialist Credential program. The course will critically examine emerging research on varied issues impacting special educational policy and practice. The value of empiricism as a philosophy, and data-based teaching practices will be explored. The issues surrounding quantitative and qualitative measurement along with varied conceptualizations of validity, reliability, and accountable practice will be explored via assigned readings and individual projects. These projects will require students to assess the research-based merits of selected special educational practices. Candidates will be required to triangulate various quantitative and qualitative measures of educational and policy effectiveness in order to render empirically informed conclusions about differential effects of various practices in the field of special education. Prerequisite: Admission into the Professional Level II Education Specialist Credential program.

## EDSP 514 Advanced Communication, Collaboration, and Consultation in Special Education (3)

EDUC 514 is a required course for the Professional Level II Education Specialist Credential program. EDUC 514 explores advanced issues surrounding communication, collaboration, and consultation in special education. The effective performance of educational leadership, advocacy, and team management, as well as methods for positively representing special education to parents, administrators, and other educators are addressed in the course. Additionally, skills and methods of collaborating and communicating with professionals and paraprofessionals about students' complex emotional and behavioral needs are addressed. The area of cross-agency transitional services and individualized transitional experiences are explored with emphasis on communication and collaboration across human service agencies. The development of collaborative planning, evaluation and refinement of instructional strategies, curriculum, adaptations and behavioral support are also required of candidates taking EDUC 514. Prerequisite: Admission into the Professional Level II Education Specialist Credential program.

## EDSP 515 Advanced Legal Issues in Special Education (3)

EDUC 515 is part of the Professional Level II Education Specialist Credential program. Advanced legal issues faced by teachers, administrators, and parents in special education are addressed. Topics include entitlement to services, procedural due process, complaint resolution, least-restrictive environment, provision of related services, parent participation, shared decision-making, and other related legal issues. Candidates review federal legislation, case law, and statutory requirements within the context of understanding the legal framework underlying special education and providing services, which are legally, as well as programmatically, sound. Prerequisite: Admission into the Professional Level II Education Specialist credential program.

## edSP 516 Professional Induction Plan: Culminating Assesmemt

 (1)EDUC 516 is the final course in Professional Level II Education Specialist Credential program. This course creates a context for the culminating assessment of the individualized Professional Induction Plan. Candidates will collaboratively assess the elements presented in their induction plans developed in EDUC 511. Working with University faculty, school district support staff, and other teachers, the candidates will evaluate the attainment of their professional goals by reviewing the evidence contained in their Professional Portfolio and applied to their school settings. Areas for continued professional growth will also be identified. Cr/NC only. Prerequisite: Admission into the Professional Level II Education Specialist Credential program.

## Education: Single Subject (EDSS)

EDSS 418 Learning and Development in Adolescents (3)
This is a prerequisite course for admission to the Single Subject Credential Program. Students will become familiar with all areas of adolescent development including Physical, Cognitive, Identity, Social, Sexual and Moral as well as physical and psychological factors affecting adolescent health currently. Analysis of development in contexts such as family, school, culture, and mass media will be emphasized. Through reading, reflective writing and practical assignments, students will also become familiar with current adolescent issues, needs and experiences. The overall goal of the course is to translate this knowledge and familiarity in to effective learning environments for secondary students.

EDSS 442 Teaching in Multicultural Settings (4)
Exploration of theory and research on teaching, learning, and the curriculum and their relationship to teaching practice in middle, junior high, and senior high schools. Emphasis on teaching/learning situation applicable to all content areas and to issues of culture and diversity. All aspects of instructional planning, implementation, and evaluation are addressed, including classroom atmosphere, interpersonal skills, classroom leadership, management and discipline, interdisciplinary planning, and teaming and collaborative learning. Students develop a repertoire of teaching strategies that address the needs of diverse learners. Students develop materials that contribute to a program portfolio to be evaluated before continuation to student teaching. Grade only. Prerequisites: admission to the Single Subject CLAD Credential program, EDUC 417 and EDUC 418.

## EDSS 443A Observation/Partcipation in Multicultural Settings

 (2)Focused and systematic observation and structured participation in a middle, junior high, or senior high school classroom setting leading to a supervised student teaching experience. Cr/NC only. Prerequisites: admission to the Single Subject CLAD credential program, EDUC 417, EDSS 418, and EDSP 433. Must be taken concurrently with EDUC 443B.

## EDSS 443B Seminar: Classroom Management and Field

 Experience (3)This seminar accompanies EDSS 443A, Supervised Observation and Participation in Schools. The seminar serves three functions: (1) To guide students' observations with special emphasis on classroom management; (2) To serve as a liaison between the Single Subject program and the students' observation placements; and, (3) To prepare students for successful student teaching with the creation of a classroom management plan and detailed reflections on the three days teaching experience required for EDSS 443A and in preparation for PACT. Prerequisites: EDUC 417, EDSS 418.

EDSS 444 Teaching in the Content Areas (4)
Principles, methods, and materials for teaching particular academic content in middle, junior high and senior high schools. Emphasis is on applications of constructivist theory to teaching and learning, and on organization and representation of content in forms accessible to learners. Students prepare for and process their concurrent field experience is secondary classrooms. In addition, as part of the preparation for PACT (Performance Assessment for California Teachers), students learn to evaluate and critique the content and structure of lesson plans, instructional materials, and assessments of student performance tasks. Prerequisites: EDUC 417, EDSS 418, and admission to the Single Subject Credential program. Grade only.

## EDSP 578 Project Continuation (1-3)

## EDSP 595 Special Studies (1-4)

## EDSS 446 Language Literacy Across the Curriculum: Middle

 and Secondary School (4)Principles, methods, and materials for guiding students' literary development in subject areas at the secondary level. Includes literacy and language theory and current issues in reading/language pedagogy for first and second language learners. Emphasis is on the interrelationships between language systems and constructivist literacy theory and the cognitive, affective. and social aspects of literacy development in subject areas. Issues of cultural and language diversity related to competencies, bilingualism, classroom management, lesson and unit design using competencies, and dialect variation are integral to the course. Students develop materials that contribute to a program portfolio to be evaluated before continuation to student teaching. Grade only. Prerequisites: admission to the Single Subject or Education Specialist Credential program, EDUC 417, EDSS 418 and EDSP 433, or permission of instructor.

## EDSS 458 Student Teaching in Multicultural Settings (12)

A supervised teaching experience in a multicultural middle, junior high, or senior high school setting under the guidance of a resident teacher and a University supervisor. Assignment consists of three teaching periods and two preparation periods daily. Two periods entail full student teaching responsibility as outlined in the Single Subject Handbook. The third period consists of assisting the resident teacher and/or limited teaching responsibilities in a supplemental authorization subject area. Student teachers may team teach in some or all of the classes. $\mathrm{Cr} /$ NC only. Prerequisites: successful completion of all Phase I courses and successful presentation of a program portfolio. Must be taken concurrently with EDSS 459.

## EDSS 458I Internship-Student Teaching in Multicultural

 Settings (3-6)A supervised teaching experience in a multicultural middle, junior high, or senior high school setting under the guidance of a resident teacher and a university supervisor. Assignment consists of three teaching periods and two preparation periods daily. Two periods entail full student teaching responsibility as outlined in the single Subject Handbook. The third period consists of assisting the resident teacher and/or limited teaching responsibilities in a supplemental authorization subject area. Student teachers may team teach in some or all of the classes. Cr / NC only. Prerequisites: successful completion of all Phase I courses and successful presentation of a program portfolio. Must be taken concurrently with EDUC 459. Interns only. Permission to enroll from director of internship program required prior to registering.

## EDSS 459 Seminar for Secondary Student Teachers (4)

This seminar supports student teacher candidates during their student teaching semester. The course provides opportunities for candidates to exhibit and examine their teaching competence in regard to classroom management, curricular planning, instructional strategies for diverse learners, assessment, and professional development. Candidates assemble a teaching portfolio. In addition, the weekly seminar prepares candidates for the PACT Teaching Event, a summative performance assessment of the candidate ${ }^{1}$ s demonstrated ability to plan, implement, and assess a significant segment of teaching. Successful completion of the Teaching Event will be required to earn a California Preliminary Single Subject Credential. Prerequisite: successful completion of all Phase 1 courses. Must be taken concurrently with EDSS 458.

EDSS 4591 Internship Seminar: Student Teaching Multicultural Settings (2)
Support seminar focusing on issues of classroom management, concerns related to the student teachers' classroom experiences, and professional growth and career development. Emphasis is on integrating content of Phase I courses, including CLAD competencies, into the student teaching experience. Students use materials from the program portfolio and the student teaching experience to develop a professional portfolio. Grade only. Prerequisites: successful completion of all Phase I courses and successful presentation of a program portfolio. Must be taken concurrently with EDUC 458. Interns only. Permission to enroll from director of internship program required prior to registering. Cr/NC only.

EDSS 495 Special Studies (1-4)

## Education: Teaching English to Speakers of Other Languages (EDTE)

EDTE 540 Theories and Research in Second Language
Acquisition (3)
This course will provide an overview and critical examination of the theories and research in second language acquisition (SLA) and will explore relationships between this work and second language teaching and learning. Major theories examined will include those from cognitive, psycholinguistic, sociolinguistic, and sociocultural perspectives. Prerequisite: Admission to SOE MA Program.

## EDTE 541 Advanced Pedagogical Grammar (3)

In this course you will gain an understanding of the grammar of English and how to use this understanding in teaching English as a second or foreign language. We will explore a variety of current perspectives and approaches to describing and teaching grammar. Prerequisite: Admission to SOE MA Program, EDTE 544.

## EDTE 542 Teaching Multilingual Writers (3)

This course will investigate the theory and practice of learning to write in a second language from an applied linguistics perspective. Topics will include the theoretical developments in L1 and L2 composition, current research issues and pedagogical concerns, among others. Prerequisite: Admission to SOE MA Program, EDTE 544.

## EDTE 543 Practicum in Teaching ESL (3)

The practicum is designed to provide students with an opportunity to ovserve an ESL teacher (s) and to have a supervised experience in teaching English learners. A sem, inar accompanies the field experience. Prerequisite: Admission to SOE MA Program, EDTE 544.

## EDTE 544 Advanced Methods of Teaching English as a Second/

 Foreign Language (3)This course is designed to provide an in-depth study of methods for teaching English to non-native speakers at various levels. Students will link theory to practice through the study of current methods for teaching and developing speaking, listening, reading, and writing, processes in English. Prerequisite: Admission to SOE MA Program.

## EDTE 545 Special Topics in Teaching ESL/EFL (3)

Special Topics in the fields of applied and sociolinguistics related to teaching English as a second or foreign language will be offered on a rotating basis. Prerequisite: Admission to SOE MA Program.

## Engineering Science (ES)

## ES 101A Communication in the Digital Age (3)

Concept of digital age, technology and modern communications, understanding various routinely used technical terms and commonly known computer and communications components and devices; understanding digital voice, video and data communication, mobile communication and communication through internet; ill effects such as radiation, invasion of privacy, unethical usages and protection from them; assessment of learning. (The companion laboratory course ES 101B is strongly recommended; the course does not apply to ES major). Prerequisite: GE Math eligibility. GE Area: This course meets GE Area B3 requirement.

## ES 101B Communication in the Digital Age Laboratory (1)

 Laboratory to demonstrate the concepts discussed in the course ES 101A and give hands-on experience to the students. (Does not apply to ES major). Co-requisite: ES 101A, or permission of the instructor. GE Area: This course meets the GE science laboratory requirement.
## ES 110 Introduction to Engineering and Laboratory Experience (2)

Lecture, 1 hour. Laboratory, 3 hours. This course is designed to introduce principles of engineering to the students and expose them to the electronics and computer lab environment. The students are given opportunity to design and build some simple analog and digital circuits and make measurements using various types of lab equipment.

## ES 210 Digital Circuits and Logic Design (4)

Lecture, 3 hours. Laboratory, 3 hours Logic gates, combinatorial logic and analysis and design of combinatorial circuits, electronic circuits for various logic gates. Flip-flops, registers, and counters, sequential circuits and state machines. Various logic families and comparison of their electrical characteristics such as fan-out, rise and fall times, delay, etc. Concepts of machine, assembly and high level languages and relationship between them, basic principles of computer design. Laboratory work will include designing, building and testing of digital circuits, logic and sequential circuits. Prerequisites: MATH 142E, Co-req: ES 230; or consent of instructor.

## ES 220 Electric Circuits (3)

Lecture, 3 hours. Review of Kirchhoff's laws, circuit design, node and mesh analysis, etc.; Thevenin's theorem, Norton's theorem, steady state and transient analysis, transfer function. AC power and three-phase circuits, Y-Delta equivalents. Multi-port networks, two-port networks with energy storage, ideal transformers. Amplifiers and frequency response, filters. Prerequisites: ES 110 and MATH 211; Corequisite: ES 221 and PHYS 214, or consent of instructor.

## ES 221 Electric Circuits Laboratory (1)

Laboratory, 3 hours. Laboratory work on material treated in ES 220 emphasizing elementary design principles. Prerequisite: ES 110 and corequisite: ES 220.

## ES 230 Electronics I (3)

Lecture 3 hours. Theory, characteristics and operation of diodes, bipolar junction transistors and MOSFET transistors; analog and digital electronic circuits; design and analysis of analog electronic circuits such as filters, operational amplifiers, single and multistage amplifiers; modeling and simulation using spice/multisim software. Prerequisite: ES 220 and 221 and corequisite: ES 231 or consent of Instructor.

## ES 231 Electronics I Laboratory (1)

Laboratory, 3 hours. Laboratory work to accompany ES 230. Computer assisted design of electronic circuits involving devices such as diodes and transistors. Design, building and testing of electronic circuits such as filters, oscillator, amplifiers, etc. Corequisite: ES 230.

## ES 310 Microprocessors and System Design (4)

Lecture, 3 hours. Laboratory, 3 hours. Hardware architecture of a microprocessor and its programming and instruction design, memory hierarchy and I/O interfaces, comparison of various microprocessor architectures and capabilities, system design using microprocessors. Laboratory work. Prerequisites: ES 210 and ES 230; or consent of instructor.

ES 314 Advanced Programming, Modeling and Simulation (4) Lecture, 4 hours. Pointers and dynamic allocation of storage; linked lists; an introduction to the object oriented programming (00P) paradigm; classes and objects; encapsulation; member variables and member functions. Static arrays, dynamic arrays, stacks and queues, linked lists, trees, binary search trees, balanced trees (AVL, red-black, B-trees), heaps, hashing and graphs. System modeling techniques and applications such as generation of noise (random numbers) and correlated signal with different pdfs, measurement of statistical parameters like moments, queuing systems and system simulation. Prerequisite: CS 115: Programming I. Corequisites: MATH 345: Probability Theory and ES 220: Electric Circuits, or consent of instructor.

## ES 330 Electronics II (3)

Lecture, 2 hours. Laboratory, 3 hours. Analysis and design of high frequency amplifiers; high frequency models of transistors; operational amplifiers and applications; feedback amplifiers; oscillators, modulators, bandpass amplifiers, and demodulators for communications. Laboratory work. Prerequisite: ES 230 or consent of instructor.

## ES 400 Linear Systems Theory (3)

Lecture, 3 hours. Analysis of linear time-invariant systems, correlation, convolution, impulse response, complex variables, Fourier series and transform, sampling, filtering, modulation, stability and causality, feedback and control systems, Laplace and Z-transform, fast Fourier transforms. Prerequisite: MATH 241 or consent of Instructor. (Crosslisted with MATH 430 and CES 400)

## ES 430 Electromagnetic Theory and Applications (3)

Lecture, 3 hours. Electrostatics, magnetostatics, electric currents, electromagnetic induction, electric and magnetic fields in matter, Maxwell's equations, retarded potentials radiation reaction, light emission, simple scattering and antenna theory, properties of waveguides, relativistic formulation of electrodynamics, Fourier decomposition of fields. Prerequisites: ES 220, MATH 241 and MATH 261.

## ES 432 Physical Electronics (3)

Lecture, 3 hours. Semiconductor materials, crystal structure and growth; energy bands and charge carriers, conductivity and mobility; metal-semiconductor and p-n junctions; p-n junction diodes, bipolar junction transistors, field-effect transistors, CCD's, photonic devices and integrated circuits. Projects in photolithography; conductivity and contact resistance measurements; I-V and C-V characteristics of diodes; characterization of transistors may be assigned. Prerequisites: ES 230 or consent of Instructor. (Crosslisted with PHYS 475 and CES 432)

## ES 440 Analog and Digital Communications I (3)

Lecture, 2 hours. Laboratory, 3 hours. Mathematical modeling of signals, time and frequency domain concepts, spectral density, components of a communications system, analog signal transmission. AM, FM and PM modulation and demodulation techniques, noise and bandwidth, link analysis. Laboratory work. Prerequisites: ES 230, and ES 400; or consent of instructor.

## ES 441 Analog and Digital Communications II (3)

Lecture, 2 hours. Laboratory, 3 hours. Digital signals and their transmission, PCM, log-PCM, ADPCM and DM and other low bit rate coders. Digital data transmission, data encoding, clock recovery and BER, data modulation techniques, ASK, FSK, PSK and QAM. Link budgets for satellite, cellular, and cable systems, the effects of noise and bandwidth. Laboratory work. Prerequisite: ES 314 and ES 440 or consent of instructor.

## ES 443 Introduction Optical Fiber Communications (3)

Lecture, 3 hours. Principles of light wave propagation, and propagation in an optical fiber, fiber characteristics, $0 / \mathrm{E}$ and $\mathrm{E} / 0$ conversions, coupling, WDM, modulation techniques for efficient information transmission, system design. Prerequisite: ES 430 and Corequisite: ES 441 or consent of the instructor.

## ES 445 Рнотоnics (3)

Lecture, 3 hours. Gaussian beams; guided-wave optics; fiber optics; optical resonators; resonant cavities; laser oscillation and amplification; laser excitation; optical pumping; solid state, gas, dye, chemical, excimer and free electron lasers; semiconductor lasers; laser spectroscopy; fiber optic communication; photomultiplier and semiconductor radiation detectors including photoconductors, junction photodiodes; p-i-n diodes, avalanche photodiodes; detector noise. Prerequisite: PHYS 314 or consent of Instructor. (Crosslisted with PHYS 445 and CES 430)

## ES 465 Introduction to Networking and Network Management (3)

Lecture, 2 hours. Laboratory, 3 hours. The ISO reference model, theoretical basis for data communications, data transmission theory and practice, telephone systems, protocols, networks, internetworks, with examples. Prerequisites: ES 314 and ES 440 or consent of Instructor. (Crosslisted with CES 440).

## ES 480 Artificial Intelligence (3)

A survey of techniques that simulate human intelligence. Topics may include: Pattern recognition, general problem solving, adversarial game-tree search, decision making, expert systems, neural networks, fuzzy logic, and genetic algorithms. Prerequisites: ES 314 or consent of Instructor.

## ES 485 Selected Topics in Engineering Science (1-3)

A course on a single topic or set of related topics not ordinarily covered in the engineering science curriculum. The course may be repeated for credit as topics vary. Prerequisite: consent of instructor.

## ES 492 Senior Design Project Planning (2)

Lecture, 1 hour. Laboratory, 3 hours. This course is the first phase of the capstone course. In the lecture part, the students will learn design techniques, how to plan a project, evaluate and perform tradeoffs, make project presentations and write project reports. In the laboratory parts, the students will choose a project, do planning, acquire parts, components and other resources needed and start the project work.

## ES 493 Senior Design Project (3)

This is a capstone course. A major project designed to bring the knowledge gained from various courses together to analyze, design and implement an electronic and/or communications system in an efficient and economic manner. Prerequisite: Consent of the instructor.

## ES 497 Engineering Science Colloquium (1)

Lecture, 1 hour. Series of lectures on topics of interest in the relevant fields of engineering. A maximum of 1 unit can be applied to the ES major. The students may not miss more than two presentations. A brief summary of each presentation must be submitted after the presentation. The course grade is decided on evaluation of these reports. Cr/NC only.

## English (ENGL)

ENGL 099T Basic Composition-Tutoring (1)
Individual and group tutoring in English composition. Tutoring units are assigned on basis of English Placement Test scores and are taken in conjunction with other writing courses. May be repeated. Cr/NC only. Not applicable toward graduation. Prerequisite: completion of the English Placement Test (EPT).

ENGL 100A First-Year Composition (3)
Study and practice in the expression of facts and ideas; principles of investigation, of organization, and of effective writing style, with emphasis upon expository writing and upon developing analytical reading ability. Students must successfully complete both English 100A and English 100B; English 100B may not be taken alone. Completion of English 100A-100B with a C- or better satisfies GE Area A2 (Fundamentals of Communication). Grade only. 3 units each semester. Prerequisites: completion of the English Placement Test (EPT). English 100A is a prerequisite for English 100B.

ENGL 100B First-Year Composition (3)
Study and practice in the expression of facts and ideas; principles of investigation, of organization, and of effective writing style, with emphasis upon expository writing and upon developing analytical reading ability. Students must successfully complete both English 100A and English 100B; English 100B may not be taken alone. Completion of English 100A-100B with a C- or better satisfies GE Area A2 (Fundamentals of Communication). Grade only. 3 units each semester. Prerequisites: completion of the English Placement Test (EPT). English 100A is a prerequisite for English 100B.

ENGL 101 Expository Writing and Analytical Reading (4)
Study and practice in the expression of facts and ideas; principles of investigation, of organization, and of effective writing style, with emphasis upon expository writing and upon developing analytical reading ability. Practice in the oral analysis and expression of ideas. Individual sections may be designated as Freshman Interest Group (FIG) courses and course material linked with companion FIG courses in other departments. Satisfies GE, category A2 (Fundamentals of Communication). Prerequisite: completion of the English Placement Test (EPT).

## ENGL 199 Student Instructed Course (1-3)

A course taught by graduate students under the supervision of a department faculty member. The course content will not be one covered by the regular course offerings.

## ENGL 200 California Cultural Analysis (3)

Within the context of readings related to California history and culture and their role in shaping contemporary California life, students practice the techniques of expository writing, oral expression, and reading and thinking critically. Satisfies GE, category A1. Prerequisite: completion of GE categories A2 and A3.

ENGL 201 Written and Oral Discourse Studies (3)
A course in analysis and production of written and oral discourse appropriate to a variety of disciplines and rhetorical situations, with emphasis on methods of critiquing, argumentation and cross-disciplinary discourse problems and challenges. Prerequisites: completion of GE areas A2 and A3. Satisfies GE, category A1.

## ENGL 203 Introduction Linguistic Studies (3)

The nature and structure of natural language; language and the mind; child language acquisition; role and function of language in the context of personal and group interactions and identities; language and other communication systems in culture and society; how language changes; using the skills and insights afforded by the scientific study of language. Satisfies GE, category D5 (Contemporary International Perspectives).

## ENGL 207 Introduction to Creative Writing (4)

An introduction to a variety of forms of creative writing, poetry and prose poems, the personal essay, vignettes, short stories, drama and experimental fiction. Students will explore each form with in-class exercises and discussion.

## ENGL 214 Literature of the World (4)

An introduction to the study of literature. Literature drawn from a worldwide range of cultures and historical periods will provide the basis for oral discussion and written analysis. The course promotes global awareness or cross-cultural perspectives while developing basic analytical skills necessary for appreciating literary texts in diverse contexts and traditions. Emphasis will be placed on written analysis of literary form and meaning. Satisfies GE, category C2 (World Literature).

## ENGL 215 Introduction to California Literature (3)

A survey of California literature. Works will be drawn from a range of California ethnic and cultural traditions. Emphasis will be placed on written analysis of literary form and meaning. Satisfies GE, category C2 (World Literature). Prerequisite: ENGL 101.

## ENGL 237 Survey: Early American Literature (4)

Survey of American Literature from the seventeenth century through the middle decades of the nineteenth century, concluding with a study of Whitman and Dickinson. In addition to major authors, major themes of the periods will be explored, including a story of Puritanism, transcendentalism, and American romanticism.

## ENGL 238 Survey: Later American Literature (4)

Begins with Whitman and covers most major writers of the late 19th century and of the 20th century. Dickinson, Twain, H. James, Faulkner, Eliot, Kate Chopin, Baldwin. Realism, naturalism and modernism.

## ENGL 239 Survey: Early British Literature (4)

Survey of British Literature from the Anglo-Saxon period to the end of the eighteenth century. Focus is on major authors in their cultural context.

## engl 240 Survey: Later British Literature (4)

Survey of British literature from the late eighteenth century to the present. Focus is on major authors in their cultural context.

## ENGL 275 Composition Workshop (1-4)

Intensive study and preparation in-class and timed writing situations such as the WEPT and/or practical writing situations (i.e. Community Service Writing). Topics of special study may include rhetorical strategies for argumentation and expository writing in various situations, grammatical review and techniques for revising, editing, and proofreading. May be offered as a stand-alone class, or in conjunction with other courses. Enrollment in linked sections will be limited to students in linked courses.

ENGL 280 Introduction to California Cultural Studies (3)
Introduction to California culture studies and its multiethic, interdisciplinary and multi-disciplinary perspectives, tasks, and methods. Includes the study of California regionalisms and a range of topics from geology, philosophy, and art. Fieldwork and field trips to sites of historical and cultural interest required. Fulfills General Education requirement in C4.

## ENGL 292 Library and Information Research: Humanities (4)

An introduction to the use of Humanities resources in the Salazar Library. Students learn how to satisfy information needs, how to construct search strategies, how to find and retrieve information, and how to critically evaluate information sources. Includes lectures, demonstrations, and online research practice. Electronic and print sources are covered.

ENGL 295 Community Involvement Prog (1-4)
CIP involves students in basic community problems, performing such tasks as tutoring and reading for the blind. Students receive 1 to 4 units, depending on the specific tasks performed. A total of 6 units of CIP credit may be applied toward a degree.

## ENGL 301 Literary Analysis: Seminar (4)

The art of critical writing on each genre, and the application of traditional and modern criticism to the study of literature. All English majors must take this course in their junior year.

## ENGL 302 Special Topics and Themes in California Cultural

 Studies (4)Courses include: California and the Environmental Imagination; Representing LA; Mural Art and California Politics; California Lives, San Francisco Culture; California in the Fifties; The Jack London Circle; California Immigration Experience; California and the West; Race, Ethnicity and Culture in California.

## ENGL 303 Special Studies in Composition (2-4)

Expository writing, with a specific emphasis that varies from semester to semester; reports, grants, proposals, technical writing and general business writing.
Please see Schedule of Classes for current title.

## ENGL 307 Introduction to Fiction Writing (4)

A writing workshop which focuses on crafting the short story. May be repeated for credit. Prerequisite: consent of instructor.

## ENGL 313 Classical Literature and Myth (4)

Study of major works of the ancient world in cultural context. Consult Schedule of Classes for current listing. May be repeated for credit under different subtitles.

## ENGL 314 Modern World Lit in English (4)

Explorations and analysis of modern world literature in translation as well as works written originally in English. The course may offer a survey of world literature or provide a more in-depth study of one or more non-Western traditions in a global context (check course schedule for particular topics). Satisfies GE, category C2 (World Literature).

## ENGL 315 California Ethnic Literature (4)

An introduction to representative California writers from 1900 to the present. Includes an examination of the theoretical, regional, multicultural, and multiethnic foundations of California literature. This course focuses upon both inter-ethnic and intra-ethnic literary relationships. Satisfies GE, category C2 (World Literature). Satisfies Ethnic studies requirement. Prerequisite: completion of ENGL 101.

ENGL 315L Curriculum Laboratory (1)
Workshop in curriculum development for Teachers Preparation Candidates only. Concurrent enrollment in ENGL 315 is required.

## ENGL 318 Introduction to Poetry Writing (4)

This course is designed for the beginning student in poetry writing. Through creative exercises and the reading of contemporary poetry, we'll focus on the basic elements of writing poetry: individual voice, image, line, language, form, sound, and process. While there will be reading and much discussion of the reading, the central focus will remain on student work. May be repeated for credit.

## ENGL 339 Introduction to Shakespeare (3-4)

An introductory course in Shakespeare that centers around explication, discussion and criticism of the major plays in the canon. Available to majors and non-majors. Fulfills Shakespeare requirement for English majors.

## ENGL 341 Explorations in Language (4)

This course introduces a series of linguistic topics that meet the content requirements of the English waiver program for future teachers. Topics include history of the English language, semantics, language and/or literacy acquisition, or classroom discourse analysis. See Schedule of Classes for current offering.

## ENGL 342 Children’s Literature (4)

A study of children's books, with emphasis on both traditional and modern materials. Consideration of children's reading interests and criteria for selection of books.

## ENGL 343 Youth and Literature (4)

A survey course focusing on the genre of young adult fiction and non-fiction, with emphasis on its use in the teaching of secondary school English.

## ENGL 345 Women Writers (4)

A survey that, with a varying focus from semester to semester, considers women writers in a number of different periods, countries and genres. This course emphasizes the comparative analysis of gender and literary practice, including, for example, intersections with ethnicity, sexuality, and social class. Suitable for nonmajors. May be repeated for credit. Satisfies GE, category C2 (World Literature).

## ENGL 349 Explorations in Literature (3-4)

A course in literary explorations that will include subjects not normally offered in the regular curriculum. Please see Schedule of Classes for current titles. May be repeated for credit.

## ENGL 352 Personal Essay (4)

Intended for the general student who wishes to practice expository writing. Provides students with an opportunity to explore personal experience through writing and to examine elements of prose style in an informal, workshop atmosphere. May be repeated for credit. Prerequisites: upper-division standing and completion of the WEPT requirement, or consent of instructor.

## ENGL 367 Introduction to Short Story (4)

An introductory course on the study of the short story as a genre. This course will survey the development of the short story over time. Specific offerings of this course may focus on particular traditions within the history of the short story.

## ENGL 368 Small Press Editing: ZAUM (4)

This course offers experience in editing and publishing a student literary journal as well as working on a national literary hournal. Activities include editing, layout and graphics, marketing, and distribution. May be repeated for credit.

ENGL 369 Introduction to Poetry (4)
An introductory course on the study of poetry as a genre. This course will survey the development of poetry over time. Specific offerings of this course mau focus on particular traditions within the history of poetry.

## ENGL 371 Introduction to the Novel (4)

An introductory course on the study of the novel as a genre. This course will survey the development of the novel over time. Specific offerings of this course may focus on particular traditions within the history of the novel.

## ENGL 373 Introduction to Drama (4)

An introductory course on the study of drama as a genre. This course will survey the development of drama over time. Specific offerings of this course may focus on particular traditions within the history of drama.

## ENGL 375 Advanced Composition (4)

An advanced writing course, emphasizing organization of essays, style, usage, rhetorical techniques, and rewriting and editing. Course includes discussion of effective prose, review of students' work and individual consultations. Prerequisite: ENGL 101. Completion of ENGL 375 with a grade of $C$ or better satisfies the University WEPT requirement. ENGL 375 does not count towards Creative Writing concentration units.

## ENGL 377 Topics in Film Studies (1-4)

This course investigates major topics in film studies. Subjects vary and may include: the intersection of text and visuality; studies of authors/directors; script analysis; genres; historical movements and themes; critical and theoretical approaches. The course may be repeated for credit up to a maximum of 6 units. This class may be offered as a stand-alone or in conjunction with other courses. Enrollment in linked sections will be limited to students in linked courses.

ENGL 379 Structure of English: Pedagogical Grammar (4) This course is designed to develop an understanding of basic principles of linguistic analysis as well as the forms and functions of English grammar and sentence structure. Applications to classroom practices are also explored.

## ENGL 395 Community Involvement Program (1-4)

CIP involves students in basic community problems, performing such tasks as tutoring and reading for the blind. Students receive 1 to 4 units, depending on the specific tasks performed. May be repeated for a total of 6 units toward a degree.

## ENGL 399 Student-Instructed Course (1-4)

A course taught by graduate students under the supervision of a department faculty member. The course content will not be one covered by the regular course offerings.

## ENGL 400 English Lecture Series (1-4)

A public lecture series on topics of general interest. Two units require regular attendance and a final paper. Students who take three units additionally meet once a week in discussion groups and do further reading on selected topics.

ENGL 401 Introduction-Modern Critical Theory (4)
An introduction to a range of critical theories and practices related to modern literary criticism. The course aims to introduce students to the contemporary forms of critical theory and their antecedents, and to show their effects upon reading practices.

## ENGL 407 Advanced Fiction Writing (1-4)

An advanced-level fiction writing workshop. May be repeated once for credit.

## ENGL 409 Master Class-Fiction Writing (4)

Fiction writing workshop with a published writer. Enrollment limited to 15. Prerequisite: previous enrollment or consent of instructor.

## ENGL 418 Advanced Poetry Writing (4)

This course is designed for the more advanced student in poetry writing. It is recommended that the student have prior instruction or approval by the instructor. While the focus is on student writing, students can also expect to obtain a strong sense of American poetics over the last 50 years. May be repreated for credit.

## ENGL 430 Creative Writing: Select Genres (1-4)

A workshop in the writing of a selected genre such as: memoir, autobiography, screenplay, stage play, novel, etc. May be repeated for credit.

## ENGL 435 Directed Writing (2-8)

Individualized instruction in poetry, fiction, or creative non-fiction writing, one-onone with a published writer. Prerequisite: consent of the instructor. No more than eight units of ENGL 435 may be counted toward the English major.

## ENGL 436 Studies in Postcolonial Literature (4)

Study of contemporary Anglophone and translated literary works with emphasis on transnational contexts and encounters between the First and Third Worlds.

## ENGL 439 Studies in Shakespeare (4)

An advanced course in Shakespeare that focuses on the plays in the sub-genres through the context of history, sources, criticism and theatrical reception. Fulfills Shakespeare requirement for English majors.

## ENGL 447 Studies in Comparative Literature (3-4)

The study of literary themes and movements. Includes the various literatures that relate to a particular topic, such as decadence and symbolism, and modern European literature. Please see Schedule of Classes for current offering. May be repeated for credit. Normally offered through Special Sessions in Extended Education.

## ENGL 448 Periods in British Literature (4)

Study of British authors in their historical periods, including Middle English, Renaissance, seventeenth century, Restoration and eighteenth century, Romantic, Victorian, twentieth century. Please see Schedule of Classes for current offering. May be repeated for credit under different subtitles.

## ENGL 450 Periods in American Literature (4)

Selections from the seventeenth through the twentieth century, includive of contemporary American literature, will comprise the Period offerings. Please see Schedule of Classes for current offering. May be repeated for credit.

## ENGL 451 Feminist Perspectives in Literature (4)

Feminist Perspectives is an advanced course in reading, writing, and research that will engage feminist perspectives in literature. This course is interdisciplinary in approach and is conducted in a seminar format.

ENGL 460 Teaching Assistant in English (1-4)
Provides students experience in assisting an instructor in an English course by doing course-related research and tutoring. Prerequisite: consent of the instructor. No more than eight units of ENGL 460 may be counted toward the English major.

## ENGL 462 Research Assistant in English (1-4)

Provides selected students the opportunity to participate in the construction and execution of a faculty research project. Prerequisite: faculty invitation.

## ENGL 470 Studies in Poetry (4)

Themes, modes and techniques of poetry: modern British, 20th century American, etc. Please see Schedule of Classes for current offering. May be repeated for credit.

## ENGL 472 Studies in the Novel (4)

In-depth studies of a particular kind of novel: English, 20th century American, political (offered jointly with the department of political science), war novel, etc. Please see Schedule of Classes for current offering. May be repeated for credit.

## ENGL 474 Studies in Drama (4)

Study of representative plays of a particular period: Medieval, Renaissance, Neoclassic, 19th century, Modern. Please see Schedule of Classes for current offering. May be repeated for credit.

## ENGL 475 Master Class in NonFiction (4)

An advanced workshop in creative non-fiction, focused on the writing of publishable essays and the art of the book proposal. Prerequisite: ENGL 375, 352, 430 (Creative Non-Fiction) or consent of instructor.

## ENGL 480 Studies in California Literature (4)

Study of a topic unique to California literature (e.g. Beats, LA/SF detective fiction, California immigrant and autobiographical literature). Emphasis on the historical, cultural, and regional character of the selected writings. Please see Schedule of Classes for the topic studied. Fulfills the core requirement of the California Cultural Studies special major. May be repeated for credit.

## ENGL 481 Studies in British Literature (4)

Studies of topics in British as well as related litertures including colonial, postcolonial, and Anglophone literatures. Please see Schedule of Classes for current offering. May be repeated for credit under different subtitles.

ENGL 482 Studies in American Literature (4)
Close study of topics unique to American literature (e.g., transcendentalism, Western American literature). Please see Schedule of Classes for current offering. May be repeated for credit.

## ENGL 483 Individual Authors: American (4)

One or more authors will be selected for study in depth. Please see Schedule of Classes for the author(s) to be studied. May be repeated for credit.

ENGL 484 Individual Authors: English (4)
Each semester one or more authors will be selected for study in depth. Please see Schedule of Classes for the authors to be studied. May be repeated for credit.

## ENGL 485 California Authors (4)

One or more California authors will be selected for in depth study. Please see Schedule of Classes for the authors studied. May be repeated for credit.

## ENGL 487 Studies in Rhetoric (4)

Specialized study of topics in rhetoric (including the history of rhetoric from classical to modern and post-modern rhetoricians), specific problems in rhetoric, and nontraditional rhetorical strategies. Content varies from semester to semester.

## ENGL 489 Topics in Linguistics (4)

Individual and small-group study in specialized topics in the field of linguistics or literacy studies. Can be used to meet the Single Subject elective requirement. May be repeated for credit. Offered every two years.

## ENGL 491 Seminar in Teaching Composition (4)

This course will focus on composition theory, course design, instructional methods and assessment in the teaching of writing in multicultural settings. Students will also write extensively to improve their own writing. A school-based practicum is a required component of this course.

## ENGL 492 Reading and Responding to Literature (4)

This course will focus on the links between literacy studies and the teaching of literature, with an emphasis on understanding current approaches to supporting adolescent reading in multicultural classrooms. The course explores books, both modern and traditional, that are of particular interest to adolescent and young adult readers. Through extensive reading and writing, students will build an understanding of how to develop effective English Language Arts curriculum at the secondary level.

## ENGL 494 Advanced Survey (4)

This course offers academic support for the review of English and American literature that Master's candidates undertake in preparation for the graduate qualifying exam. Offered $\mathrm{Cr} / \mathrm{NC}$ only.

## ENGL 495 Special Studies (1-4)

To register for ENGL 495, not only must the student have the consent of the instructor, but the material and course of study should satisfy student needs not covered by regularly offered courses. In addition, the amount and level of work proposed should be at the appropriate academic level. Prerequisite: consent of instructor and department chair.

## ENGL 496 English Education Capstone Seminar (4)

This course engages senior level English education majors in discussion and activities which review, synthesize and assess the breadth and depth of their subject matter competence.

## ENGL 499 Internship (1-4)

For upper-division majors who wish to work off campus in job-learning situations that relate to their major emphasis. Excludes student teaching. Written contract and faculty sponsorship required.

## ENGL 500 Research and Critical Writing (4)

Required for M.A. candidates in English. Advanced use of reference materials and library resources, and the techniques of critical and scholarly writing. The course should be taken during the first semester of classified status. May be repeated for up to eight units. Prerequisite: graduate status or consent of instructor.

## ENGL 501 Literary Theory and Criticism (4)

Advanced study of the major texts in critical theory from Plato and Aristotle to the theoretical pluralism of the present. This course should be taken in the second semester of classified status. Prerequisite: graduate status or consent of instructor.

## ENGL 530 Graduate Workshop in Creative Writing (4)

An advanced workshop in creative writing with in-depth discussions of individual work. Please see Schedule of Classes for current offering. May be repeated up to 6 units. Prerequisite: graduate status or consent of instructor.

## ENGL 535 Directed Writing (2-6)

Individualized instruction in the development of an extended creative writing project. Prerequisite: consent of instructor. The MA completion option in creative writing is fulfilled through taking a total of 6 units of 535 to successfully produce the final creative project. This project must be approved by the creative project chair and second reader. Prerequisites: ENGL 500, classified status and an authorized Advancement to Candidacy (GS01) form. Students in other MA emphases may count no more than 4 units of 535 toward the degree; creative writing students may count no more than 4 units in addition to the 6 creative project units of 535 toward the degree. Prerequisite: consent of instructor.

## ENGL 536 World/Post-Colonial Literature (4)

Studies related to different aspects of world and/or postcolonial literature.
Emphasis on historical and social contexts and contemporary theoretical models.
Course content varies from semester to semester. Course may be taken more than once for credit under different subtitles. Prerequisite: graduate status or consent of instructor.

## ENGL 539 Seminar: Shakespeare (4)

Critical reading and in-depth analysis of representative modes such as tragedy and comedy in Shakespeare. Prerequisites: graduate status or consent of instructor.

## ENGL 578 Project Continuation (1-4)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. Once students have begun final project units, they must remain continuously enrolled; these units allow them to do this and provide services such as access to the library during this time. These units may also be taken through Extension. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. May be repeated for credit. Cr/NC only.

## ENGL 581 Seminar: British Literature (4)

A topic of English literature will be selected for study in depth. In addition to the literature of Britain, the topic may cover related colonial and postcolonial literatures. Please see Schedule of Classes for current offering. Course may be repeated for credit under different subtitles. Prerequisite: consent of instructor.

## ENGL 582 Seminar: American Literature (4)

A topic of American Literature will be selected for study in depth. In addition to the literature of America, the topic may cover colonial, postcolonial and/or Antlophone literatures of the Americas. Please see Schedule of Classes for current offering. Course may be repeated for credit under different subtitles. Prerequisite: consent of instructor.

## ENGL 583 Individual Authors: American (4)

In-depth study of an individual author and related criticism. Please see Schedule of Classes for current offering. May be repeated for credit under different subtitles. Prerequisites: graduate status or consent of instructor.

## ENGL 584 Individual Authors: British (4)

In-depth study of an individual author and related criticism. Please see Schedule of Classes for current offering. May be repeated for credit under different subtitles. Prerequisite: graduate status or consent of instructor.

ENGL 587 Seminar: Rhetorical Theory (4)
Study of topics in recent rhetorical theory specifically as it applies to the teaching of writing at the college level. Course content varies from semester to semester. Course may be repeated for credit under different subtitles. Prerequisite: consent of instructor.

ENGL 588 Seminar: Study of Language (4)
Study of current theories in linguistics and literacy studies and their applications to English, with emphasis on original research and analysis in the study of oral and/ or written language. Course may be repeated for credit under different subtitles.
Prerequisite: consent of instructor.

## ENGL 595 Special Studies (1-4)

Individualized study on a student-designed topic. The material and course of study should only cover topics not available in currently offered courses. Students must complete the standard SSU form and secure the required written approvals. May be repeatd once for credit toward the M.A. Prerequisites: consent of instructor and department chair.

## ENGL 597 Directed Reading (3)

Focused reading on a relatively narrow topic validated by a written and an oral examination. To be taken by students choosing the directed reading option to complete the MA. Topic to be approved by the directed reading chair and second reader. Prerequisites: ENGL 500, classified status and an authorized Advancement to Candidacy (GS01) form.

## ENGL 599 Thesis and Accompanying Directed Reading (3-6)

To be taken by students writing a traditional thesis, an extended research topic approved and guided by the thesis chair and second reader. Prerequisites: ENGL 500, classified status and an authorized Advancement to Candidacy (GS01) form.

## Environmental Studies and Planning (ENSP)

ENSP 200 Global Environmental Issues (3)

Lecture-discussion, 3 hours. An introduction to environmental studies and planning, including: humans in relation to the global ecosystem; an overview of problems of energy use, pollution, resource depletion, population growth, food supply, urbanization, climate change and biodiversity and the search for solutions and future prospects. Satisfies GE, category D5 (Contemporary International Perspectives).

## ENSP 201 Environmental Forum (1)

Regular weekly departmental lecture series. Outside professional speakers and ENSP alumni and faculty report on environmental topics and opportunities for environmental careers. Cr/NC only.

ENSP 202 Quantitative Methods: Environmental Studies (3) Lectures and workshop designed to enhance students' confidence in analytical problem solving. Essential techniques emphasizing environmental applications: translating knowledge into abstract and mathematical models, numerical estimates, basic geometry and trigonometry, dimensional analysis, unit conversions, interpreting statistical data, graphic display of information. Conceptual introduction to calculus, differential equations, and complex numbers. Prerequisite: completion or concurrent enrollment in GE category B4 (Math Concepts). Cr/NC only.

## ENSP 301 The Human Environment (3-4)

This course is designed to explore environmental issues and their impact on/by humankind. The class will demand that each student contribute ideas from his/her own experience each class session, as well as doing an in-depth group research project on an issue that involves human interaction with the environment. Issues could include: effects of human technology and social institutions upon the natural environment as well as beliefs, values, attitudes in relation to human and nonhuman environment. Prerequisite: ENSP 200 or equivalent, junior/senior standing.

## ENSP 302 Applied Ecology (3-4)

This course explores major concepts of ecology and examines current environmental issues in light of these concepts. Topics include: relationship between organisms and the physical environment, community-level ecological processes, the structure and function of ecosystems and their distribution on the planet, evolutionary processes, and population ecology. Environmental issues include loss of biodiversity, global climate change, invasive species and others. Development of speaking and writing skills is a significant element of the course. Field trip required. Prerequisite: completion of BIOL 110 or BIOL 115 or consent of instructor.

## ENSP 303 Applied Physical Science (3-4)

A review of the physical field sciences for environmentalists. Develops an understanding of the problems and challenges in environmental control of air, water, soil, natural hazards, and nonrenewable resources by applying scientific principles to practical environmental problems. Prerequisite: completion of lower-division GE categories B1 (Physical Sciences) and ENSP 200.

## ENSP 305L Computer-Aided Communications (3)

Designed to introduce ENSP students to theory and techniques of computer-aided environmental communication. The fundamentals of visual communication will be addressed, demonstrated, and applied through a variety of instructional technologies including Web tools, presentation graphics, digital photography, and desktop publishing. Prerequisites: ENSP majors and minors, junior/senior standing.

## ENSP 306 Environmental Ethics (3)

An examination of philosophical issues; concepts of extending rights to nonhuman entities of nature and the question of humans' place in nature; logical and conceptual foundations for an environmental ethic. Prerequisite: completion of GE category A (Communication and Critical Thinking).

## ENSP 307 Environmental History (4)

History of the American environment and the ways in which different cultural groups have perceived, used, managed, and conserved it from colonial times to the present. Changes in attitudes and behavior toward nature and the conservation/environmental movements are also examined. Prerequisite: Completion of GE category A (Communication and Critical Thinking).

## ENSP 308 Environmental Literature (3)

A survey of great American environmental books, including H. D. Thoreau's Walden, John Muir's Mountains of California, and works by other environmental authors. The course considers the natural, political, cultural, and historical environment of the writers.

## ENSP 309 Soil Science (3-4)

An introduction to soil science emphasizing applications to agronomy, archaeology, botany, ecology, engineering, geography, geology, land use planning, hazardous materials management, and water quality. Technical exercises emphasize lowcost scientific analytical equipment. Prerequisite: completion of GE, category B (Natural Science and Mathematics).

## ENSP 310 Introduction to Planning (3)

An overview of land use planning and associated concerns, such as environmental protection, transportation, open space preservation, housing, economic development, urban design, public finance. Consideration of the evolving forms and functions of cities, towns, and rural areas and society's attitudes toward development, environmental concerns, the appropriate role of government in regulating land use. Course addresses general plans, zoning, growth management, environmental impact assessment and the local political process relating to planning. Current trends in planning and sustainable community development.

## ENSP 311 Planning Theory and Methodology (4)

Exploration of evolving planning thought and processes as a basis for understanding planning practice. Comprehensive planning, incremental, and communicative action models. Planning and local politics. The values and ethics of the professional planner. Mediating environmental and land use disputes. Basic analytical, methodological, and communication skills utilized in urban, environmental, and business planning. Prerequisite: ENSP 310 is required or can be taken concurrently, junior and senior standing ENSP majors and minors only.

## ENSP 314 Urban Design l: The Urban Form (3)

An exploration of the physical and visual form of urban communities. The appearance and aesthetic qualities of public open spaces, streets, buildings, neighborhoods, city gateways, signs, and other elements of the urban scene. Meaning of "sense of place." The effects of public policy and regulations on urban form. The scale, pattern, and image of urban form elements. Planning for new communities, historic preservation, urban plazas, and public art. Prerequisite: ENSP 310 is recommended.

## ENSP 315 Environmental Impact Reporting (3)

The practice and theory of environmental impact assessment and analysis. The process of preparing environmental impact reports (EIRs) and statements (EISs) as mandated by state and federal statutes and regulations. Reviewing and commenting on environmental documents. Relationship between EIRs and comprehensive planning activities. Litigation of EIRs and environmental mediation. Prerequisite: ENSP majors and minors, junior/senior standing, ENSP 310 is recommended.

## ENSP 322 Conservation Biology (3-4)

Interdisciplinary investigation into biological, management, economic, and ethical issues associated with the current extinction of species. Course will cover principles and applications of ecology, population biology and genetics, biogeography, and social sciences for protection and management of biodiversity in the face of current widespread alteration of the environment. At least one field trip required. Prerequisites: ENSP 302, BIOL 122, junior or senior standing only, or permission of instructor.

## ENSP 324A Agroecology (2)

The Agroecology course focuses on the study and practice of sustainable agriculture. Fall topics include soil testing, composting, seed beds for winter crops, planting green manure crops, and pest control. Environmental concerns concentrate on genetic diversity, seed saving, and decreased dependence on chemical pesticides and herbicides. Class time is divided between classroom lectures/discussions and field research/experimentation.

## ENSP 324B Agroecology (1-2)

The Agroecology course focuses on the study and practice of sustainable agriculture. Spring topics include composting green manure, preparation of greenhouse seed beds, pest and weed control, and spring planting in open beds. Environmental concerns concentrate on large-scale irrigation, greenhouse management, fruit, nut, and forest production, and health effects of pesticides and herbicides. Class time is divided between classroom lectures/discussions and field research/ experimentation.

## ENSP 326A Native Plant Propagation (2)

Field course in applied aspects of propagation of plants native to the local area. Topics include native plants and plant communities; techniques for collecting, growing, and planting native plants; and ecologically sound guidelines for collection and reintroduction of native plants. Experimental approaches to improve propagation success are emphasized. Course provides native stock for restoration of local riparian habitats.

## ENSP 326B Native Plant Propagation (1-2)

Field course in applied aspects of propagation of plants native to the local area. Topics include native plants and plant communities; techniques for collecting, growing, and planting native plants; and ecologically sound guidelines for collection and reintroduction of native plants. Experimental approaches to improve propagation success are emphasized. Course provides native stock for restoration of local riparian habitats.

## ENSP 330 Energy, Technology and Society (4)

A lecture/discussion course designed to assist students in understanding energy as a fundamental measure of organization, structure, and transformation in society. Principal topics include: energy history; thermodynamics; energy resources and conversion technologies; global issues and trends; environmental impacts; energy economics, institutions, and politics. Elementary quantitative analysis. Prerequisite: ENSP 202 or MATH 107 or equivalent. ENSP junior standing or consent of instructor.

## ENSP 337 Thermal Energy Management (3-4)

An introduction to energy management in residential and commercial buildings, focusing on space heating and cooling, and hot water. Fundamentals of heat transfer, thermal properties of building materials, building load calculations, and energy economics. Prerequisite: ENSP majors, MATH 107, MATH 161, or ENSP 202; PHYS 114 or PHYS 210A or equivalent.

## ENSP 338 Electrical Energy Management (3-4)

An overview of energy management approaches in residential and commercial settings that involve electrical devices, including lighting, motors, and HVAC. Fundamentals of electricity, electric power delivery, and the workings of common appliances; energy economics. Strong algebra background and PHYS 210 recommended. Prerequisite: ENSP majors, completion of MATH 107, MATH 161, ENSP 202; PHYS 114 and PHYS 210A or equivalent.

## ENSP 345 Portfolio Development and Review (3)

Course designed to introduce students to critical issues in elementary education as well as to conduct an assessment of students entering ENSP in the education study plan. Students develop portfolios and present to classmates. Field trips. Cr/ NC only. Course fee. Prerequisite: ENSP majors and minors.

## ENSP 350 Hazardous Materials Management (3)

Through lecture, discussion, and guest experts, the scope of the newly evolving field of hazardous materials management is discussed. Includes such topics as the public's right to know; environmental auditing; emergency response planning; transfer, storage, and treatment facilities; update of local and regional public agencies' activities; and career development for students. Prerequisite: ENSP 200 or equivalent.

## ENSP 360 Assistance Projects (1-4)

Involvement in on-campus environmental and planning activities. Requires preapproval of activities by faculty supervisor.

## ENSP 395 Community Involvement Program (1-4)

Involvement in human, social, biological, or physical problems of the off-campus community. A total of 6 units may be applied toward the degree.

## ENSP 399 Student Instructed Course (1-3)

Topic will differ each semester.

## ENSP 400 Selected Topics (1-4)

Intensive study of selected topics related to environmental studies and planning. Topics vary from semester to semester. May be repeated for credit with consent of instructor.

## ENSP 401 U.S. Environmental Policy (4)

This course provides a basic introduction to both American institutions and major environmental policy issues. Examines choices shaping the structure of governance and tools of environmental policy, and asks questions about decisionmaking, responsibility, and accountability. Prerequisites: juniors, seniors and graduate students.

## ENSP 403 Computer Modeling (3)

A practical course in simulating complex systems using digital computers and dynamic programming. The simulation language STELLA is taught. The principles examined in the course can be applied to any simulation language. Applications in biological conservation, land use planning, hazardous materials management, energy, water quality, environmental impact reporting are emphasized. Prerequisites: juniors, seniors and graduate students, and completion of GE category B4 (Mathematical Concepts).

## ENSP 404 Environmental Law (3)

Review of environmental law and regulation in the United States generally and California in particular. Overview of federal and California legal systems with emphasis on their role in environmental protection. Evolution of environmental law in the United States, including property rights and environmental justice.

## ENSP 405 Environmental Research and Writing (2-3)

Whether you are conducting research for a class assignment, writing a paper in graduate school, or solving real environmental problems as a working practitioner, you will need some strong basics in research methods. This class covers a variety of methods in the social sciences applicable to work in a wide range of environmental fields, including library searches, interviews, historical research, finding and interpreting planning documents, and effective writing. Prerequisites: juniors, seniors and graduate students. Prerequisites: juniors, seniors and graduate students.

## ENSP 411A Planning Workshop (4)

The first semester of an intensive, year-long project that provides practical experience in preparation of a general (comprehensive) plan for an actual community or geographic area. The fall semester focuses on background studies and field surveys of land use, public opinion, transportation, economic base, and environmental conditions. Class fee required at time of registration. Prerequisites: ENSP 310 and 311, ENSP seniors with subplan: Planning required. Course fee.

## ENSP 411B Planning Workshop (4)

Continuation of ENSP 411A. Spring semester focuses on preparation of the plan, including implementation programs, following state guidelines. Public presentations of class project. Class fee required at time of registration. Prerequisites: ENSP 411A and consent of instructor.

## ENSP 414 Urban Design II: Placemaking (3)

Course focus is on the process of designing urban places where public life and a sense of community can thrive. Many critics of American cities have lamented the fact that these urban areas have lost their uniqueness; the urban landscape has come to be visually characterized by a dispiriting "sameness". Considered most offensive are standardized development of chain and "big box" stores with their corporate "logo" signs, and "cookie cutter" residential subdivisions. The course explores efforts of communities to retain their uniqueness and enhance civic pride, including the creation of vibrant public spaces, lively pedestrian environments, and comfortable and safe streets and neighborhoods. The meaning, purposes, and techniques of "contextual design" are explored, especially those designed to protect local historical heritage and regional distinctiveness. Prerequisites: ENSP 310 recommended.

## ENSP 415 Land Use Law (4)

Overview of the law governing land use in California. Fundamentals of the legal system and legal analysis. Substantive law regarding planning and zoning, subdivision, development conditions, growth management, land use initiatives, vested rights, and design review. Constitutional protection of property rights. Prerequisite: juniors and seniors only; ENSP 310 recommended.

## ENSP 416 Environmental Planning (3-4)

Review of land use planning and regulation as it relates to the protection of various natural resources and environmental systems. Course subject matter varies and may include wetlands, open space, biodiversity, endangered species, coastal resources, agricultural land, forests, land subject to flooding, multi-species habitat planning, and air quality. Regulatory tools used to ensure resource and environmental protection. Prerequisite: ENSP 310 and/or ENSP 401 recommended, juniors, seniors and graduate students.

## ENSP 418 Planning for Sustainable Communities (3)

Sustainability as a concept in environmental and land use planning. Definitions and models of sustainability. Evaluation of sustainable development on global, national, regional, and local levels. Practical experience with city and county planning for sustainability. Prerequisite: ENSP 310 recommended, juniors, seniors, and graduate students.

## ENSP 419 Transportation Planning (3)

Theory, methods, and tools related to the systematic analysis of city, regional, and rural transportation problems. The focus is on fundamental land use and transportation interrelationships. Transportation as an integrated system composed of automobiles, public transit, bicycles, and pedestrian travel modes. "Level of service" and traffic impact assessment. Congestion management, energy conservation, sustainability and environmental impact considerations. Prerequisite: ENSP 310 recommended.

## ENSP 421 Landscapes of the American West (3)

Use of and interactions with natural resources have transformed the American West over time, and greatly affected the western environment as we know it today. This seminar takes a historical look at the settlement, development, and management of the western landscape, both in terms of natural resources (timber, water, grazing, parks etc.) but also in terms of cultural settlement and use - and considers landscape as a tool for understanding the cultural/social/political history of a place. Students can expect to do some serious reading, writing, and thinking about how and why the West has become such a distinctive natural and cultural landscape. Open to juniors, seniors, and graduate students only or consent of instructor. Prerequisite: juniors, seniors and graduate students.

ENSP 422 Special Topics in Conservation and Restoration (2-3) Interdisciplinary seminar addressing ecological, historical, cultural, social, and/or policy aspects of different natural resource topics each year. Examples of topics could include forestry, wetlands ecology, fisheries, management, endangered species protection, etc. Students will read and discuss material from diverse sources to achieve a thorough understanding of a particular issue in conservation and restoration, allowing them to participate constructively in on-going policy and management debates. Open to juniors, seniors, and graduate students or consent of instructor.

## ENSP 423 Restoration Ecology (5)

Field course introducing major concepts and practical aspects of restoration ecology and land management. Topics include: the conservation context of restoration, restoration goals, measuring success, experimental approaches, dynamic systems and change over time, disturbance, restoring animal populations and the role of animals in ecosystem restoration, and educational elements of restoration. Practical techniques covered include: seed collection, ex-situ seed and plant management and propagation, invasive species removal, planting native species, and others. Topics are addressed in a variety of diverse local systems. Prerequisites: ENSP 302 or BIOL 122, or consent of instructor. Course fee.

## ENSP 424 Fire Ecology, Management and Policy (3)

A seminar course exploring fire ecology, management and policy issues. Specific topics covered will include the use of fire or fire surrogates for restoring grassland, shrub land and forest systems; management of non-native species with prescribed fire; wildfire management, historical fire policy and its ecological implications for the western United States; climate change and fire. Prerequisite: ENSP 200. Course fee.

## ENSP 425 Restoration Seminar (3)

This seminar focuses on the ideas and theories behind environmental restoration work and asks some critical questions about current challenges in the field: Where did the idea of restoration come from? What are the goals of environmental restorations, and how do you know if a project is meeting those goals? What do we really mean by the terms "wilderness," "native," "diversity," and so forth? Do environmental mitigation projects really work? We will also look at several real-work cases of restoration projects through the semester. Prerequisite: juniors, seniors and graduate students.

## ENSP 427 Conservation Design (3)

This course applies concepts from landscape ecology and conservation biology to conservation planning and design in a rapidly urbanizing area. Focusing on an area of Sonoma County with both high conservation value and development pressure, the class will develop blueprint for biodiversity conservation and evaluate those strategies as alternative scenarios in a GIS environment. Prerequisite: ENSP 322, ENSP seniors only consent of instructor.

## ENSP 428 Conservation Research Methods (3)

This research seminar emphasizes a current topic of applied and theoretical interest in the field of conservation biology. Students investigate the topic through a field research project, along with readings and discussions. Students contribute to all phases of the research, from generating hypotheses and collecting data in the field, to analyzing the data and writing a scientific paper based on the results. Each class focuses on a different topic and related set of field methods. Prerequisite: GEOG 205 or consent of instructor.

## ENSP 430 Energy Forum (1-2)

Speakers, including community professionals, program alumni and university faculty, cover a wide variety of energy issues with formal presentations followed by discussion period. May be repeated for credit. Prerequisite: ENSP majors, juniors/ seniors standing.

## ENSP 431 Society and the Аtom (3)

An overview of nuclear energy and nuclear weapons, including their history, an introduction to nuclear physics, reactor engineering and operations, fuel cycles, and discussion of regulation, weapons proliferation, security issues, risk assessment, and diverse political perspectives. Prerequisite: Junior/senior standing. PHYS 210A, CHEM 115A or equivalent.

## ENSP 437 Passive Solar Design (3-4)

Fundamentals and advanced applications of passive solar design, including: site analysis and design; passive applications (sunspace, trombe wall, convective loop, direct, and indirect gain systems); passive performance predictions; and economic payback analysis. Computer applications and student design projects. Prerequisite: ENSP 337, junior or senior standing, ENSP majors and minors or consent of instructor.

## ENSP 438 Small Scale Energy Sources (3-4)

Course will focus on functional design of small-scale wind, photovoltaic, biomass, and hydroelectric energy sources. Siting, evaluating potentially available power, design of fully operable installation, and by-products and waste streams will be discussed. Energy storage mechanisms, interconnections to existing energy networks, and energy cost comparisons will be examined. Prerequisite: ENSP 338 or consent of instructor.

## ENSP 439L Computer Applications in Energy Management

 Laboratory (1-2)Applications laboratory addressing state-of-the-art computer programs in this field. Focus on simulation-and-design programs utilized in residential and commercial building compliance. Student projects and presentations. Prerequisite: ENSP 337, junior or senior standing, ENSP majors or minors; or consent of instructor.

## ENSP 440 Education and the Environment (4)

This course is designed to provide an introduction to the history and current scope of environmental education; contemporary frameworks for learning and teaching; self, site, and audience assessment; and program options for schools and education centers. One overnight field trip, course fee required at time of registration.

## ENSP 442 Methods and Models in Education and the Environment (3)

An advanced course in environment-based education to build upon the fundamental theory and techniques presented in ENSP 440. The focus is on exemplary programs, place-based delivery techniques, curriculum and technologies. Several field trips to local schools and community education centers. Cr/NC only. Prerequisite: ENSP 440 or consent of instructor.

## ENSP 444 Outdoor Leadership (3)

A survey course addressing the theory and practice of outdoor leadership. Central topics include safety and first aid; trip planning, leading and debriefing; business models and employment options; and outdoor skills such as orienteering, rock climbing, whitewater rafting, and sea kayaking. Course fee and overnight field trips. Classes meet the first half of the semester.

## ENSP 448 Classroom Garden (1-2)

Development of curriculum materials and teaching techniques to utilize school and community gardens as outdoor classrooms. Curriculum materials will relate to such topics as plant identification, growth cycles, photosynthesis, soils and nutrients, nutrition, insects, predator/prey relationships, pesticides, and soil and water pollution. Lesson plans suitable for elementary school level will be developed.

## ENSP 450 Water Technology (4)

The science and engineering of purifying polluted water for drinking. Applications of mathematics, microbial ecology, and chemistry to the practical problems of working toward California certification in water supply and water treatment. Course has extensive homework and field trips. Prerequisites: GE category B4 (Mathematical Concepts) and one semester of chemistry, ENSP majors or minors; or consent of instructor.

## ENSP 451 Water Regulation (3)

The regulation of water supply and quality from all points of view including regulators, industries, scientific agencies, nonprofit organizations, and action agencies. The law, management, economics, and technology of water. Prerequisite: G.E. category D4 (U.S. Constitution and California State and Local Government).

## ENSP 460 Teaching Assistant in ENSP (1-4)

Open only to advanced students. Intended to give students experience in assisting the instructor in an environmental studies course by doing research and tutoring students in the class. Prerequisite: consent of instructor.

## ENSP 470 Planning Independent Study (1-4)

Contracts for group and individual interdisciplinary study for those qualified to work independently. Internships may be a part of the study. Prerequisite: consent of instructor required prior to registration. Prerequisite: written contract and faculty approval.

## ENSP 490 Senior Project (1-4)

Group and some individual studies. This major senior activity may be coordinated with independent studies and/or special problems to total 12 units. May be repeated for credit. Prerequisites: written contract and faculty approval.

## ENSP 495 Special Studies (1-4)

Independent study designed in consultation with an instructor. Requires prior approval of ENSP faculty member and department chair. Prerequisite: successful completion of at least two ENSP courses and submission of a completed SSU special studies form.

## ENSP 497 Senior Seminar: Issues in Professional

## Preparation (1-2)

This seminar covers topics essential for professional preparation in the fields of conservation and restoration. Topics include discussions with guest speakers on career options in governmental, private, and non-profit settings; writing highly effective resumes, CVs and cover letters; and techniques for successful interviewing. The course will also cover preparation for future training in professional and academic fields. Required for seniors in the Conservation and Restoration study plan. Cr/NC only. Prerequisite: ENSP majors; senior standing.

ENSP 498 Senior Seminar: Issues in Professional Practice (1-2) Discussion of situations and challenges new planners are likely to encounter early in their professional careers. Seminars include discussions with professional planners on such topics as working with the public, elected officials, and other professionals; maintaining relations with the press; ethical dilemmas; and other matters of current concern. Discussion of students' internship experiences. Required for senior students in the Planning concentration. Must be taken within two semesters of graduation. Cr/NC only. Prerequisite: ENSP majors; senior standing.

## ENSP 499 Internships (1-8)

For senior students (in most cases) working off-campus in experiential learning positions with written contract and faculty guidance. $\mathrm{Cr} / \mathrm{NC}$ or a grade, depending on study plan. Prerequisites: ENSP majors only, senior standing, consent of instructor.

## Foreign Language (FL)

## FL 101 Special Topics in Foreign Language (1-3)

## FL 102 Special Topics in Foreign Language (1-3)

## FL 195 Elementary Special Studies (1-4)

Directed, individual lower-division study in a modern language.

## FL 214 World Literatures in English (3-4)

Introduction to selected works of world literature from Asia, Africa, Europe, North America, Latin America and Mexico, and from the classic literatures of Greece and Rome. Background lectures on literature, literary genres and the different cultural histories will be given. Basic techniques of reading, analysis and composition will be emphasized. Satisfies GE, category C2 (World Literature). Prerequisite: ENGL 101.

## FL 230 Modern Languages, Cultural Studies (1-3)

## FL 314 World Literatures in English Translation (3)

Studies in world literatures in English translation. Topics may include non-western cultural and religious values, colonialism vs. emerging nationalisms, and the quest for identity, personal, cultural and national. Satisfies GE, category C2 (World Literature). Prerequisite: ENGL 101.

## FL 495 Special Studies (1-4)

Directed and individual study on subject(s) of special interest. Students must prepare a proposal which is subject to the approval of the department chair.

## French (FR)

## FR 101 First Semester French (4)

Assumes no prior experience in French. Moves from simple, everyday greetings to basic vocabulary and phrases describing people, places, clothing, food, travel, studies, sports, and professions. Competency-based testing of listening, speaking, reading, writing, and cultural skills. Requires concurrent enrollment in FR 101L.

## FR 101L Language Laboratory (1)

A minimum of two academic hours (100 minutes) weekly of practice sessions involving on-line exercises and/or interactive exercises. Cr/NC only. Prerequisite: concurrent enrollment in FR 101.

## FR 102 Second Semester French (4)

Students progress through increasingly complex sentence structures. Listening and speaking competence tested at intermediate low levels; reading and writing at intermediate mid levels. (Testing includes cultural knowledge.) Requires concurrent enrollment in FR 102L. Prerequisite: FR 101 or by examination.

## FR 102L Language Laboratory (1)

A minimum of two academic hours ( 100 minutes) weekly of practice sessions involving on-line exercises and/or interactive exercises. Cr/NC only. Prerequisite: concurrent enrollment in FR 102.

## FR 201 Third Semester French (4)

A thorough and detailed review of all French grammar, supplemented by strong cultural content. This course is intended to enable the student to pursue his or her interests independently. Testing (includes cultural knowledge) of speaking and listening skills at the intermediate-mid levels, reading and writing at the intermedi-ate-high levels. Requires concurrent enrollment in lab, FR 201L. Prerequisite: FR 102 or by examination.

## FR 201L Language Laboratory (1)

A minimum of two academic hours ( 100 minutes) weekly in practice sessions involving on-line exercises and/or interactive exercises. Cr/NC only. Prerequisite: concurrent enrollment in FR 201.

## FR 202 Oral French (4)

Required of majors. Extensive use of oral group activities, use of periodicals and listening comprehension through video and tapes. Practical work in phonetics and intonation. Speaking and listening competence at advanced-low level. Prerequisite: FR 201 or by examination.

FR 300 Introduction to Literary Analysis and Critical Writing (4)
Study of advanced aspects of French grammar and stylistics as encountered in literary and nonliterary texts, with a focus on introducing students to literary analysis of the various genres. Oral and written presentations. Course may be repeated once for elective credit with permission of instructor. Prerequisites: FR 201 or equivalent, and FR 202.

## FR 314 French Literature in English Translation (4)

Studies in French-speaking Caribbean, African, Near Eastern, Asian, and/or North American literatures in English translation. Topics may include non-western cultural and religious values, colonialism vs. emerging nationalisms, and the quest for identity, personal, cultural and national. Satisfies GE, category C2 (World Literature). Prerequisite: completion of GE category A.

## FR 320 France Yesterday (4)

French civilization: history, social and political institutions, and the arts, as revealed in written documents and visual media (architecture, painting, graphics, etc.), from the medieval period to the Revolution. Readings, discussion, and oral and written reports in French. Prerequisite: FR 300 or equivalent (may be taken concurrently).

## FR 321 France Today (4)

French civilization: history, social and political institutions, and the arts, as revealed in written documents and visual media, Revolution to present. Readings, discussion, and oral and written reports. Prerequisite: FR 300 (may be taken concurrently).

## FR 410 French Literature (4)

Readings in theatre, prose and poetry representing major writers and movements from the Middle Ages, the Renaissance, Classical and the pre-Romantic periods. May be organized around themes or genres or by aesthetic movements. Readings, discussion, and oral and written reports in French. Prerequisite: FR 320.

## FR 411 French Literature (4)

Readings in theatre, prose and poetry from major writers and movements from the 19th and 20th, and early 21st Centuries. May be organized around themes or genres or by aesthetic movements. Readings, discussion, and oral and written reports in French. May be repeated for credit when content is different. Prerequisite: FR 321.

## FR 415 Special Topics in French Culture (4)

Topics vary according to current interests and issues, e.g., the Francophone world, Paris, the French film, French feminism and French impressionism. Readings, discussions, oral and written reports. May be repeated for credit when topics change. Prerequisite: FR 320 or 321 (may be taken concurrently).

## FR 475 Senior Seminar (4)

An advanced writing course, culminating in a research paper on a literary topic, or a substantial piece of creative writing. This course may only be taken at SSU. It may not be taken abroad or at another U.S. university. Prerequisite: FR 321 or 411 (may be taken concurrently).

## FR 495 Special Studies (1-4)

Directed individual study. Prerequisite: consent of instructor.

## FR 499 Internship (1-4)

Students in the internship program apply skills and methods mastered in their course work in French in a variety of situations in public and private agencies. Credit is awarded for completion of 3 hours of work (weekly average) per unit, participation in a seminar or conferences, and a final report. Placement must be arranged in advance with department coordinator.

## Geography (GEOG)

## GEOG 202 World Regional Geography (3)

This course explores 4-5 world regions from a holistic perspective, examining their economic, political, demographic, cultural and environmental landscapes with considerable historic depth. The course also considers how each region fits within a larger global political and economic system, and how their roles have changed, particularly with globalization. Satisfies GE, category D5 (Contemporary International Perspectives).

## GEOG 203 Human Geography (3)

The course introduces students to a spatial perspective of cultural, economic, political, demographic, and environmental processes. We review the deep historical origins of many social processes and examine how they continue to influence our contemporary experience. We also study how these processes change as they move across geographic space and encounter other cultures and places. Satisfies GE, category D2 (World History and Civilization).

GEOG 204 Global Environmental Systems (4)
An integrated study of the physical environment, focusing on the processes and relationships between the four spheres: the atmosphere, biosphere, hydrosphere, and lithosphere. Major topics include global and regional patterns of climate and weather, soils, distribution of plants and animals on earth, and erosional and depositional processes that create landforms on the earth's surface. Also explored are possible links between human activities and changes in climate and vegetation patterns and dominant landform processes. Field trips and hands-on lab exercises included. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences).

GEOG 205 Introduction to Map Reading and Interpretation (1) The intent of this course is to provide students a background on map projections and reference systems, scale concepts, coordinate systems, a bit of air photo interpretation, and topographic maps. Class time is a mix of lecture and lab work. This course, or its equivalent, is required for entry into Geography $315,380,385$ and 387.

## GEOG 302 World Regions in Global Context (4)

Selected regions of the world form the basis of study. Economic development, political problems, man-land relationships and global issues are covered. The course uses geographical methodologies and concepts and is interdisciplinary in its observations of world regions. Satisfies GE, category D5 (Contemporary International Perspectives).

## GEOG 314A Field Experience Northern California (1-2)

Field experience is provided in a variety of areas not usually offered in the regular geography courses. The course titles and contents may vary from semester to semester and may be repeated for credit. Please see the current Schedule of Classes for particular interest areas offered. A fee will be charged for this course. Up to 2 units of GEOG 314A, B and C in total may be counted toward the major.

GEOG 314B Field Experience Northern California (1-2) Field experience is provided in a variety of areas not usually offered in the regular geography courses. The course titles and contents may vary from semester to semester and may be repeated for credit. Please see the current Schedule of Classes for particular interest areas offered. A fee will be charged for this course. Up to 2 units of GEOG 314A, B and C in total may be counted toward the major.

GEOG 314C Field Experience Beyond Northern California (2)
Field experience in areas beyond the normal range of GEOG 314A and 314B, including but not limited to attending professional meetings in nearby states. Field Experience outside the United States (2-3). Cultural and physical studies of people and laces through travel, observation and interaction, oral and written analysis. Destinations include Central and south American countries. Course contents and locations will vary; may be repeated for credit. check with instructor regarding destination and cost. Offered during Intersession or Summer Session. Prerequisite: consent of the instructor.

## GEOG 314D Field Experience Abroad (2-3)

Field Experience outside the United States (2-3). Cultural and physical studies of people and laces through travel, observation and interaction, oral and written analysis. Destinations include Central and south American countries. Course contents and locations will vary; may be repeated for credit. check with instructor regarding destination and cost. Offered during Intersession or Summer Session. Prerequisite: consent of the instructor.

## GEOG 314D Field Experience Beyond Northern California (2)

 Field experience in areas beyond the normal range of GEOG 314A and 314B, including but not limited to attending professional meetings in nearby states. Field Experience outside the United States (2-3). Cultural and physical studies of people and laces through travel, observation and interaction, oral and written analysis. Destinations include Central and south American countries. Course contents and locations will vary; may be repeated for credit. check with instructor regarding destination and cost. Offered during Intersession or Summer Session. Prerequisite: consent of the instructor.
## GEOG 315 Field Methods in Geography (2)

This course provides hands-on experience with field sampling techniques commonly used in biophysical data collection and spatial inquiry. Course topics include sample design, field measurements, statistical data analysis, report writing and the use of field equipment. Field work will be conducted mainly in the Fairfield Osborn Preserve and surrounding area. Data collected from vegetation sampling, soil descriptions, microclimate measurements, and geomorphologic observations will be used to interpret the natural and anthropogenic landscape. Throughout the course, students will work with Global Positioning System (GPS) units to accurately locate their field samples on the Earth, allowing for subsequent spatial analysis within a Geographic Information System (GIS). Prerequisites: Math 165 and GEOG 205, no exception but can be taken concurrently. Laboratory fee may be charged; see current Schedule of Classes.

## GEOG 320 Geopolitics (4)

In this course we dig deep into the field of geopolitics, the struggle for control over territory, transportation corridors, and natural resources. We analyze the origin of the discipline, its historical development, and key contemporary issues, including the Iraq War, the U.S. missile defense shield and the expansion of NATO, the promotion of democracy as a security strategy, Iranian nuclear ambitions, and Chinese military expansion. We will also examine the upsurge of nationalism since the end of the Cold War, and examine ethno-national rebellion from multiple perspectives, including the failure of nation-building, the failure of economic development, and competition over scarce natural resources.

GEOG 322 Liberation Ecologies: Globalization, Environmental, and Social Movements (4)
This course examines some of the ways specific places and people have promoted, encountered, and negotiated the projects of development and globalization. We begin with a critical examination of 'development' and 'globalizatiot' and a public narrative that has obscured their origins, intentions, and operations. We will use case studies of specific places where development and globalization have motivated resistance; often leading to new identity-based social movements. We will examine cases related to environmental degradation, land dispossession, gender and justice, and personal and community security. The course has a global perspective which includes, but is not limited to cases from the Third World. The class often enlists political ecology and political economy perspectives in our analysis.
gEOG 330 Historical Geography of North America (4)
A study of the settlement history of North America and of the changing concepts of man-environment relationships in the chronology of the Europeanization of the American landscape. Investigations into where and why people settled as they did, and the origins of the economic and spatial relationships that constitute the present American scene will be the focus of the course.

## GEOG 331 Geography of Wine (3)

California's wine industry in perspective, with a brief look at wine origins and world production. An examination of the various wine-growing regions of California. Included are discussions of climate, soil, wine history, grape-growing and wine making. Guest speakers who are experts in enology and viticulture will be featured.

GEOG 335 Global Food Systems: Scarcity and Sustainability (4) This course explores the development of agriculture from its origins to its modern forms. It discusses the historical development and current structure of five agricultural systems: small and large corporate farms in the development of the world, as well as traditional peasant production systems, plantations and green revolution forms in the developing world. It then considers issues such as world hunger, food aid, global commodity trade, and the affect of biotechnology in both the developed and developing world.

## GEOG 338 Social Geography (3)

Studies aspects of demography, migration and the spatial dimension of social organization. Included in the course are the spatial perspectives of social well-being, poverty, crime and ethnicity. The spatial structure of human settlement, as well as political, religious and social values will be discussed. Satisfies upper-division GE, category E (Integrated Person).

## GEOG 340 Conservation of Natural Resources (4)

This class explores the use and management of natural resources. Each year, it focuses on a different set of renewable and non-renewable resources, such as water, oil, diamonds, rangeland, and others. It addresses topics such as distribution, scarcity, substitution, access and use-rights, resource cartels, regulation and sustainability. It also looks at how these issues are changing under globalization and the rise of transnational corporations.

## GEOG 345 Tourism Geographies (4)

Tourism is an essentially geographic activity. For tourists and the toured, it involves learning about and anticipating a 'different' place. For host communities, tourists increase foreign contact and generate nearly 100 million jobs. And while the process is similar everywhere (anticipate, travel, experience the place and people, and return), each place is affected differently. With that concern with difference at the front, the class will explore the western history of tourism, different types of tourism, cultural representations of destinations, the affects of tourism on specific places and people (identity, cultural, economic, and environmental), and the political economy of tourism as a development strategy.

## GEOG 350 Urban Geography (4)

A consideration of urban origins, the diffusion of the city, and modern-day interand intracity phenomena. Topics to be discussed include urbanization, comparative urban forms, urban functional organization, land use, distribution of cities and their territories, and urban problems - pollution, housing and open space.

## GEOG 360 Geomorphology (4)

Lecture 3 hours; laboratory, 3 hours. Explores the relationships between surface processes such as weathering, mass movements, running water, wind, waves and glacial ice, and the landforms these processes create. The course looks at geomorphic systems and the role of tectonics and climate in changing the balance of these systems. Actual research projects are presented to demonstrate geomorphic approaches to environmental questions. Students are exposed to research methods in the field and lab. Field trips and field reports, use of maps, and hands-on labs are included. A fee will be charged for this course. Prerequisites: GEOG 204, GEOL 102, or consent of instructor.

## GEOG 365 Biogeography and Landscape Ecology (4)

Biogeography is the study of plant and animal distributions at local to global spatial scales. This course seeks to understand the physical and biological processes that determine these patterns through time, as well as help design management strategies for conserving our planet's biological diversity. This is thus a highly integrative field of inquiry, pulling on concepts, theories and data from general ecology, landscape ecology, evolutionary biology, geology, and physical and human geography. Field trips consider the biogeography of plants and animals in the local anthropogenic landscape. Prerequisite: BIOL 115, 121, 122, or consent of instructor.

## GEOG 370 Weather and Climate (4)

An exploration of the atmosphere, how it differs from place to place and time to time. The role of radiation, temperature, humidity, evaporation, cloudiness, precipitation and surface factors (topography, exposure and altitude) in differentiating world climates. Climate's influence on man physically and culturally, in history and prehistory. Climate change, drought and flood, and solar radiation are among the topics investigated in detail. Prerequisite: GEOG 204 or consent of instructor.

## GEOG 372 Global Climate Change: Past, Present and

 Future (4)An advanced course focusing on evidence of climate change in the past and potential climate change in the future. Present research methods used to investigate past climate and project possible climatic trends will be studied. The range of theories regarding past, present and future climate, and the response of the environment to such changes will be explored in detail. Prerequisite: GEOG 204 or consent of instructor.

GEOG 375 Natural Hazards (4)
Natural hazards do not exist alone, but in reference to people. This course provides a survey of natural hazards in relation to human populations and activities around the world. The focus is on natural disasters generated by weather, climate, geomorphic, and biogeographical events and processes. Students study natural occurrences such as drought, severe weather, hurricanes and tornadoes, as well as fires and air pollution events. We also look at landslides, floods, volcanic eruptions, tsunamis, earthquakes, and disease dispersals such as ebola, and bird flu. Hazards related to global climate change are also explored. Basic concepts regarding risk assessment, hazard perception, population change, and impact on the built environment are studied. Prerequisite: Geog 204 or consent of instructor.

## GEOG 380 Remote Sensing and Image Processing (4)

Lecture, 3 hours; laboratory, 3 hours. In this class, students learn how to create land-cover maps from satellite imagery. Raw satellite images are imported into computer software programs, preprocessed for radiometric and geometric corrections, enhanced for better interpretation, and finally classified into land cover maps using various techniques. These land cover maps are then assessed for accuracy through field ground truthing using geographic positioning systems. Students make land-cover maps of Sonoma county and use these to monitor changing land-use and cover patterns. Students utilize various software programs, including IDRISI and ERDAS. The class incorporates hands on computer labs, field trips, and an independent project. Prerequisites: GEOG 205, no exception but can be taken concurrently. Laboratory fee may be charged; see current Schedule of Classes.

## GEOG 385 Cartographic Visualization (3-4)

Lecture, 2 hours; laboratory, 3 hours. Map and graphic methods in geography: history, design, theory and construction. Topics include selection of map projections, use of scales, generalization, data input and processing, color, visualization of spatial data, and map production. Emphasis is placed on effective communication through graphic design. Covers the increasing role of geographic information systems (GIS) in cartography. Also examines the collection of geographic data, such as with global positioning systems (GPS). Exercises guide students through increasingly complex methods of data collection and cartographic construction. Prerequisite: GEOG 205, no exception but can be taken concurrently. Laboratory fee may be charged; see current Schedule of Classes.

## GEOG 387 Geographic Information Systems (4)

Geographic information system (GIS) technologies provide researchers and policy makers with a powerful analytical framework for making decisions and predictions. As with any technology, the appropriate use of GIS depends greatly on the knowledge and skills of the user. This course addresses the scientific and technical aspects of working with geographical data, so that GIS users understand the general principles, opportunities, and pitfalls of recording, collecting, storing, retrieving, analyzing, and presenting spatial information. Both fundamental concepts and "hands on" experience with state-of-the-art software are incorporated through readings, lecture discussion and laboratory assignments. The first half of the course focuses on the "nuts and bolts" of how a GIS works, while the second half concentrates on methods for spatial analysis and modeling. Prerequisite: CS101 or basic competency with Microsoft operating system and Office applications, and GEOG 205 with no exception but can be taken concurrently. Laboratory fee may be charged; see current Schedule of Classes.

## GEOG 390 Geography of California (3)

California as a state and as a region is in many ways unique. This course examines both the singular physical and human aspects of the State, from its unusual geologic history, climate, and vegetation, through its earliest inhabitants, to its present day diverse population and trend-setting economic, political, and cultural atmosphere. Issues discussed include changing populations and regional differences, evolving urban areas, water resources, agriculture, and forestry.

## GEOG 392 Latin American Culture and Environment (4)

A consideration of topics of special importance to Latin America, including population growth, urbanization and economic development. Specific countries will also be examined in detail, with an emphasis on settlement patterns and environmental characteristics.

## GEOG 393 South Asia (4)

This course covers four broad topics in South Asia: (1) geopolitics, including foreign policy objectives of key states in the region, and competition for oil \& gas; (2) the prospects for democracy in the region, with attention to Maoist rebellions in Nepal and India, tribal unrest and Islamist politics in Afghanistan and Pakistan, Hindu nationalism in India, the civil war in Sri Lanka, and the prospects for democratic reform in post-conflict Nepal; (3) economic development and stagnation, including the success of the high tech sector and the continuing poverty of agricultural and industry laborers; and (4) human-environment relations, including land degradation, water shortage, and environmental protest movements.

## GEOG 394 Africa South of the Sahara (4)

Students explore various historical and contemporary processes that have created Africa's diverse and complex geography. The course begins with a historical survey of the continent, starting with its great civilizations and continuing through its experiences through colonialism, independence, the cold war, and globalization. This section of the class examines how these major events have played out throughout the different regions of Africa, south of the Sahara. The class then turns directly to thematic issues that are central to a human-geographic perspective of the continent: population, rural/urban dynamics, education and health issues, and human-environment interactions including agricultural systems and conservation issues. Finally, with a deeper understanding of the region, the course addresses present-day political hot spots of post-cold war Africa, and the critical development problems plaguing the continent.

## GEOG 396 Special Topics in Area Studies (4)

This course will cover regions not regularly taught in the department. Regions may include areas such as The Middle East, East Asia, Southeast Asia, Arid lands, The Pacific Rim/World or underdeveloped lands. Offerings will vary depending on visiting faculty, experimental courses, and educational needs.

## GEOG 487 Advanced Geographic Information Systems (3)

This course provides greater depth in the foundations of geographic information systems (GIS). Readings, group discussions, and lectures delve into database development issues, advanced spatial analysis, and GIS research applications. Students also complete a semester-long research project using GIS technologies. Students learn to identify problems that can benefit from a spatial-analytical approach and determine the appropriate data for pursuing such a project. Students build their own GIS database, mastering skills such digitizing and attributing spatial data; importing data from the internet; collecting field data for GIS integration; and converting GIS layers into a single coordinate system and map projection. Finally, students learn to choose and implement the most appropriate spatial analysis method for their research, and then interpret the results. Prerequisite: GEOG 387 or consent of instructor.

## GEOG 490 Senior Seminar (3-4)

The focus of the seminar may vary, but the class will expose students to the nature of the discipline of geography through readings of scholarly literature. The class will emphasize a student research project and will include classroom discussions during the course of the semester.

## GEOG 495 Special Studies (1-4)

Special studies may be arranged to cover an area of interest not covered in the courses otherwise offered by the department. Prerequisites: completed special studies form and consent of the instructor.

## GEOG 496 Selected Topics in Geography (2-5)

A single subject or set of related subjects not ordinarily covered by the geography department. Offerings will vary depending on visiting faculty, experimental courses and educational needs.

## GEOG 499A Geography Internship Program (2-5)

Students in the internship program will be given the opportunity to gain practical experience using geographical skills by working in a variety of county and city agencies in the Sonoma State University service area. Credit is given for three hours per unit work per week as arranged with the internship coordinator. Must have junior or senior class standing, and a minimum GPA of 2.75 , or permission from the Department Chair. GEOG 499A is offered in Fall; GEOG 499B is offered in Spring.

## GEOG 499B Geography Internship Program (2-5)

Students in the internship program will be given the opportunity to gain practical experience using geographical skills by working in a variety of county and city agencies in the Sonoma State University service area. Credit is given for three hours per unit work per week as arranged with the internship coordinator. Must have junior or senior class standing, and a minimum GPA of 2.75 , or permission from the Department Chair. GEOG 499A is offered in Fall; GEOG 499B is offered in Spring.

## GEOG 595 Graduate Special Studies (1-6)

Advanced research and writing. Students work under close supervision of faculty members. Subject matter variable. May be repeated for credit. Prerequisites: consent of instructor and completed special studies form.

## Geololgy (GEOL)

GEOL 102 Our Dynamic Earth: Introduction to Geology (3) Lecture, 2 hours. Laboratory, 3 hours. A study of the minerals, rocks and landforms that make up our earth in the context of the dynamic forces that form them. Emphasis on local geology, including earthquakes and other environmental aspects. Laboratory study of minerals, rocks and maps. Required one-day weekend field trip. Fee required. Satisfies GE, category B1 (Physical Sciences) and GE laboratory requirements.

## GEOL 105 The Age of Dinosaurs (3)

Lecture, 3 hours. The life and death of dinosaurs as evidenced by the fossil record will be studied to show how geology and biology combine in the discipline of paleontology. The evolution of dinosaurs over a 150 million- year time span sets the stage to investigate several interesting and ongoing controversies surrounding dinosaurs, including: why dinosaurs became extinct, the metabolism of dinosaurs, and the relationship between birds and dinosaurs. Satisfies GE, category B1 (Physical Sciences).

## GEOL 107 Introduction to Earth Science (3)

This course studies the operation of the Earth system and its solar system home. It introduces the fundamental aspects of 4 major areas: astronomy; geology, including plate tectonics, and the planetary history of the Earth and its moon; physical oceanography; and weather and climate. There is no lab. The course is designed to prepare students for the earth science and astronomy parts of the SET examination. The prerequisite is that a student must be enrolled in the AMCS, LIBS, CALS, or ENSP credential program. This class is not allowable as a prerequisite for upper division Geology courses.

## GEOL 110 Natural Disasters (3)

A course to examine the interaction between natural processes and human activities and the often costly and fatal results. Course emphasis will be on the principles underlying natural disasters such as earthquakes, volcanic eruptions, landslides, floods, severe weather, coastal processes, asteroid impacts, fires, great dyings, and population growth. Many examples will be drawn from the northern California area. Extensive internet work for current information. Course content may vary with instructor. Satisfies GE, category B3 (Physical Sciences, Specific Emphasis).

## GEOL 120 Regional Field Geology (3)

Lecture, 1 hour. The heart of geology is in the field. The course is an examination of rocks, minerals and landforms, and the processes that form them. This course includes a 10-day field trip taken during spring vacation, where the natural world becomes our classroom. Prerequisites or corequisite: any 100 level geology course or instructor consent; students must be in good physical condition.

## GEOL 205 Mineralogy (4)

Lecture, 3 hours. Laboratory, 3 hours. Principles of crystal chemistry, crystallography, properties, and origin of common rock-forming minerals. Laboratory sessions emphasize hand specimen and petrographic mineral identification characterization. Prerequisites: completion of or concurrent enrollment in GEOL 303 and CHEM 115A.

## GEOL 205A Mineralogy, Optics (2)

Supplementary course to be held concurrently with GEOL 205. For students who already have taken a mineralogy course but have not gained sufficient experience in optical mineralogy. Consists of the lecture and laboratory portion of GEOL 205 relevant to optical mineralogy. Pre/Corequisite: GEOL 303 and CHEM 115A.

GEOL 301 Natural History of the Hawailan Islands (3)
Lecture, 3 hours. The origin and evolution of the flora and fauna of the most isolated archipelago in the world; geologic history and context of volcanic oceanic islands; conservation biology efforts to save the rare and endangered species of Hawaii. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: BIOL 115 or 121/122.

GEOL 302 Geology of Climate Change (3)
Lecture, 3 hours. Climate changes on time scales of days to millions of years. We will review methods by which the amplitude and pacing of climate changes are measured, use data analysis to assess the significance of past climate variability, and consider interpretations and theories proposed to explain Earth's climate. Prerequisites: GEOL 102 and CHEM 115A.

## GEOL 303 Advanced Principles of Geology (4)

Lecture, 3 hours. Laboratory, 3 hours. Advanced treatment of the principles, methods and tools within the Geological Sciences. We will discuss topics such as: Plate Tectonics, Earth materials and resources, Earth surface processes, Geological hazards, How to read geological and topographic maps, How we decipher geological history, and much more. Prerequisite: One of the following: GEOL 102, 110, 107, 105, 120; ANTH 202, ENSP 303, or GEOG 204.

GEOL 304 Geologic Mapping and Report Writing (1) Field studies and report preparation done in conjunction with GEOL 303. Required weekend field trips. Prerequisite: concurrent enrollment in GEOL 303. Students must be in good physical condition.

## GEOL 305 Optical Mineralogy (3)

Lecture, 1 hour. Laboratory, 6 hours. Introduction to crystallography and the principles of optical mineralogy. Laboratory exercises are devoted to understanding the properties of crystal lattices and the fundamentals of mineral identification with the petrographic microscope. Prerequisites: GEOL 205, GEOL 303 and MATH 107.

GEOL 306 Environmental Geology (3)
Lecture, 3 hours. Study of geological principles and processes as they relate to our natural environment emphasizing interaction between human activities and the geological environment. Major topics include the nature and behavior of rocks and soils; earthquakes and their associated hazards; landslides, slope stability and building construction; groundwater and pollution; stream processes and flooding; shoreline processes and coastal development; engineering geology and construction of highways and dams; development of natural resources, conservation and ecology. Specific content varies year to year, depending on instructor. Prerequisite: GEOL 102 or consent of instructor.

## GEOL 307 Igneous and Metamorphic Petrology (4)

Lecture, 3 hours. Laboratory, 3 hours. A study of the origin, properties, classification and occurrence of igneous and metamorphic rocks. Laboratory exercises in the classification and description of minerals, textures and structures of the more common rock types. Laboratory work will emphasize both hand specimen analysis and microscopic petrography. Prerequisites: GEOL 205 and GEOL 303.

GEOL 308 Igneous and Metamorphic Petrology Field Course (1) Field studies done in conjunction with GEOL 307. Required weekend field trips. Fee required. Prerequisites: GEOL 304 and concurrent enrollment in GEOL 307. Students must be in good physical condition.

GEOL 309 Computer Applications in Geology (4)
Lecture: 3 hours. Laboratory, 3 hours. This course aims to provide our majors with some fundamental skills for manipulating and representing geological data using computer applications. Applications include using digitizing field maps and data into GIS format, creating figures in computer aided drawing programs, using basic functions computational software and generating histograms, and rose diagrams. Pre/Corequisite: GEOL 303 and GEOL 304.

## GEOL 310 Geophysics (4)

Lecture, 3 hours. Laboratory, 3 hours. This course will cover the basic underlying various geophysical methods, field procedures and data collection, and how to interpret geophysical data. Topics include seismic reflection and refraction, paleomagnetism, gravity and magnetic surveying, and how geophysical methods have augmented our overall understanding of the earth's structure and earth processes. Prerequisite: GEOL 303.

## GEOL 311 Sedimentary Geology (4)

Lecture, 3 hours. Laboratory, 3 hours. The description, classification and origin of sedimentary rocks. Discussion of weathering and origin of sediment, sediment transportation and sedimentary structures, clastic and nonclastic classification; and petrology. Prerequisite: GEOL 303 and 304.

## GEOL 312 Sedimentary Geology Field Course (1)

Lecture, 1 hour. Field studies done in conjunction with GEOL 411. Required weekend field trips. Prerequisites: GEOL 303 and concurrent enrollment in GEOL 311. Students must be in good physical condition.

## GEOL 313 Paleontology (4)

Lecture, 3 hours. Laboratory, 3 hours. The study of fossils in their geological context. Topics include taxonomy, morphology, evolution, biogeography, extinction and biostratigraphy of the main groups of invertebrate fossils. Laboratory work will include becoming familiar with stratigraphically important fossil groups and the use of fossils in solving both geological and biological problems. Prerequisites: GEOL 303 for majors, GEOL 102 for non-majors, or instructor consent.

## GEOL 314 Paleontology Field Course (1)

Lecture, 1 hour. Field studies done in conjunction with GEOL 313. Required weekend field trips. Prerequisites: GEOL 303 for majors, GEOL 102 for non-majors, and concurrent enrollment in GEOL 313. Students must be in good physical condition.

## GEOL 317 Structural Geology (4)

Lecture, 3 hours. Laboratory, 3 hours. An introduction to deformation processes within the earth's crust and the geological strudtures that result from these processes. We will examine deformation running the gamut of scales (from atomic scale to tectonic scale). The laboratory protion of this course will focus onmethods of structural interpretation. Prerequisites: GEOL 303, GEOL 304, MATH 107 and pre/corequisite of GEOL 309.

## GEOL 318 Structural Geology Field (1)

Lecture, 1 hour. Field studies done in conjunction with GEOL 317. Required weekend field trips. Pre/corequisite: GEOL 317. Students must be in good physical condition.

## GEOL 320 Basin Analysis (4)

Lecture, 3 hours. Laboratory, 3 hours. Origin and evolution of sedimentary basins; tectonic settings and significance, subsidence and thermal histories, basin-scale depositional systems, paleocurrent, provenance, and paleogeographic analysis, basin types, paleoclimatic influences, resources. Prerequisite: GEOL 311, 312, 317 and 318.

GEOL 321 Burgess Shale Paleontology (3)
Lecture, 2 hours. Laboratory, 3 hours. Advanced examinatino of the Cambrian Burgess Shale fossil deposits in British Columbia, Canada. Field work supplements lecture sessions on campus. Prerequisites: GEOL 313, GEOL 314, and consent of instructor. Students must be in good physical condition.

## GEOL 323 Hydrology (3)

Lecture, 3 hours. Water as a natural resource, the hydrologic cycle, distribution of water on the earth. Atmospheric water, soil water, runoff and groundwater as related to water supply and use. Applications to problems of flood control, water management and water pollution, with special emphasis on California and Sonoma County. Prerequisites: GEOL 102 or consent of instructor; MATH 106 or 107.

## GEOL 326 Stratigraphy and Earth History (4)

Lecture, 3 hours. Laboratory, 3 hours. The principles of stratigraphy and historical geology will be discussed, with special emphasis given to the application of these principles to the geologic development of North America. The geologic history of California will be treated in detail. The use of sedimentary rocks, fossils, and structural and tectonic principles will be discussed, especially as they relate to our understanding of historical geology. Laboratory work will include a study of sedimentary rocks and their properties, fossils and their occurrence and distribution, the construction and interpretation of various types of stratigraphic maps, and detailed studies of selected maps representative of the various geologic provinces of North America. Required field trip. Prerequisite: GEOL 303 or consent of instructor.

## GEOL 395 Community Involvement Program (1-4)

CIP involves students in community problems such as tutoring, aiding in school science classes, and advisement of county agencies. A total of 6 units of CIP credit may be applied toward a degree. May be taken by petition only. Not applicable to the geology major.

## GEOL 396 Internship in Geology (1-4)

Professional geologic work for a geologic firm or agency. Forty-five hours of work per unit. Not applicable to the geology major. Prerequisite: GEOL 303 and consent of instructor.

## GEOL 406 X-ray Mineralogy (2)

Lecture, 1 hour. Laboratory, 3 hours. Introduction to the use of $x$-ray diffraction techniques. Prerequisites: CHEM 115A/116A and GEOL 305 or concurrent enrollment, and consent of instructor.

## GEOL 420 Field Geology (4)

Lecture, 2 hours. This course is a synthesis of the geology-major, core courses. This course aims to hone our students' abilities to make valid geologic field interpretations through detailed field mapping and report writing. Twelve days of fieldwork are required. Prerequisites: GEOL 308, GEOL 309, GEOL 312, and GEOL 318. Students must be in good physical condition.

## GEOL 422 Geochemistry (3)

Lecture, 3 hours. Introductory cosmochemistry and origin of the elements; meteorites; the earth as a chemical system, chemistry of processes at the surface of the earth; mineral crystal chemistry; introduction to geochronology and stable isotope variations in nature; thermodynamics and its geological application; geochemical prospecting. Prerequisite: GEOL 303, CHEM 115AB/116AB, MATH 161, or consent of instructor.

## GEOL 425 Economic Geology (3)

Lecture, 3 hours. Classification, origin and alteration of metallic ore deposits. Laboratory sessions on hand sample identification of ore and alteration minerals and petrographic analysis of selected ore suites. Prerequisites: previous or concurrent enrollment in GEOL 307 and CHEM 115B/116B.

## GEOL 426A Senior Thesis I (3)

426A is the first semester of a senior thesis project. A senior thesis is an opportunity for students to engage in primary research. Students must write a proposal, defining the scope of their project. Thesis projects must be a two-semester project. Students will be required to present their projects at the Geology Colloquium. Prerequisite: thesis-advisor consent.

## GEOL 426B Senior Thesis II (3)

426B is the second semester of a senior thesis project. A senior thesis is an opportunity for students to engage in primary research. Students must write a proposal, defining the scope of their project. Thesis projects must be a two-semester project. Students will be required to present their projects at the Geology Colloquium. Prerequisite: thesis-advisor consent. Prerequisite: GEOL 426A.

## GEOL 427 Advanced Field Geology (4)

A minimum of five weeks of detailed mapping in igneous, metamorphic and sedimentary rocks, and the preparation of field reports and geological maps. Students may also complete this course at another university, but should do so only in consultation with the Geology Department. Students must demonstrate equivalence in terms of field hours and course content to GEOL 427. Prerequisite: senior standing in geology. GEOL 420 strongly recommended.

## GEOL 495 Special Studies (1-4)

Individual study, under guidance of an advisor, of an advanced field, laboratory or literature problem. Students must qualify and adhere to the department policy on independent study as outlined below. Prerequisite: approval of advisor. Department Policy on Independent Study (1) The student must have a 3.00 or higher grade point average (2) The student must have demonstrated ability to work independently and do quality work in field classes. (3) The student must have submitted a detailed proposal of work to do, schedule and results expected. (4) The student must have a faculty sponsor who is willing to advise the project and will set up a schedule of meetings for this purpose. This will be reported on the standard University Special Studies form and signed by the student, faculty advisor and department chair. (5) A copy of all documents and two copies of the final paper or report will be filed with the department office before a grade will be assigned.

## GEOL 496 Selected Topics in Geology (1-3)

An intensive study of an advanced topic in geology. May be repeated for additional credit with new subject matter. Prerequisite: adequate preparation for topic under consideration. Additional fee may be required.

## GEOL 498 Geology Practicum (1-4)

## German (GER)

## GER 101 1st Semester - The Personal World (4)

German for beginners. Through communicative activities covering the four language skills (listening, speaking, reading, and writing), students learn to ask and answer questions and share information about themselves, their families, and their daily activities. Satisfies GE, category C4 (Comparative Perspectives and Foreign Languages). Prerequisites: None. Requires concurrent enrollment in GER 101L.

## GER 101L Language Laboratory (1)

A minimum of two academic hours (100 minutes) weekly of practice sessions in the language laboratories and/or on-line. Cr/NC only. Concurrent enrollment in GER 101 required.

## GER 102 2nd Semester - Contemporary Germany (4)

Expansion of the skills acquired in GER 101. Students build on their knowledge of German culture. They improve their communicative competence, and develop skills needed to negotiate a variety of everyday situations in Germany. Satisfies GE, category C4 (Comparative Perspectives and Foreign Languages. Prerequisite: GER 101 or consent of instructor. Requires concurrent enrollment in GER 102 L.

## GER 102L Language Laboratory (1)

A minimum of two academic hours ( 100 minutes) weekly of practice sessions in the language laboratories and/or on-line. Cr/NC only. Concurrent enrollment in GER 102 required.

## GER 195 Elementary Special Studies (1-4) <br> Directed individual study.

## GER 200 Intermediate German - The German-Speaking World

 Today (4)This course introduces various cities and regions that provide the context to review first-year German. Students develop ability to communicate in German and their understanding of Germany, Austria, and Switzerland by engaging with increasingly complex topics (i.e. education, environmental issues, politics, history). Satisfies GE, category C4 (Comparative Perspectives and Foreign Languages). Prerequisite: GER 102 or consent of instructor. Requires concurrent enrollment in GER 200L.

## GER 200L Language Laboratory (1)

A minimum of two academic hours ( 100 minutes) weekly of practice sessions in the language laboratories and/or on-line. Cr/NC only. Concurrent enrollment in GER 200 required.

## GER 210 Intermediate German through Film (4)

This course uses films to expand students' knowledge of the history and culture of the German-speaking world. Films promote vocabulary enhancement, grammar review as well as improvement of speaking and writing skills. Cross-cultural comparisons encourage critical thinking skills. Satisfies GE, category C4 (Comparative Perspectives and Foreign Languages). Prerequisite: GER 102. Requires concurrent enrollment in GER 210L. This course may be taken before GER 200.

## GER 210L Language Laboratory (1)

A minimum of two academic hours ( 100 minutes) weekly of practice sessions in the language laboratories and/or on-line. Cr/NC only. Must be taken concurrently with GER 210.

## GER 300 Advanced German Studies (4)

Prepares students for the "Zertifikat Deutsch" Proficiency Examination. Students acquire differentiated vocabulary, greater grammatical accuracy, and improve their speaking and writing skills by focusing on varied language use in different contexts. Content may include: issues of gender or multiculturalism; the continued influence of the Nazi past; German reunification. Prerequisites: GER 200 and GER 210, or consent of instructor. Course may be taken before GER 314. May be repeated for credit under different subtitles. Must be taken in residence at SSU.

## GER 310 Germany Today (3)

A general introduction to present-day Germany and its people, attitudes, customs and popular culture. Reading and discussion of current and recent material from German newspapers and magazines. Includes discussion of film visual art, and music.

## GER 312 Germany in Film I (3)

Salient aspects of current German society and its turbulent recent history, introduced through German film. Includes consideration of Austria and Switzerland. Some filmmakers to be treated: Herzog, von Trotta, Wenders, Fassbinder, Petersen, Schlöndorff; films may include The Tin Drum, Das Boot, Europa Europa, Mephisto, and The Nasty Girl. All films in German with English subtitles; course taught in English with frequent reference to German terms and concepts.

## GER 313 Germany in Film II (3)

German society of the 1920s, '30s, and early '40s, introduced through German film. Focus on contrasts between expressionistic trends of the 1920s Weimar Republic and fascist-oriented developments under Nazi rule. Filmmakers to be treated may include Lang, V. Harbou, Engel, Riefenstahl; films include Olympia, Triumph of the Will, Caligari, Kolberg, Dr. Marcuse, and M.

## GER 314 Literature and Culture from the German-Speaking

 World (3-4)Studies of literature, film, art, and the cultural histories of German-speaking countries. Taught in English. Satisfies GE, category C2 (World Literature). Prerequisite: ENGL 101 and GER 102, or consent of instructor. Requires concurrent enrollment for German minors in GER 399L. May be repeated for credit under different title.

## GER 395 Community Involvement Program (1-4)

CIP involves students in basic community problems, performing such tasks as tutoring, coaching, and assisting others in the process of learning. Students receive one to four units, depending on the specific tasks performed. Prerequisite: consent of instructor.

## GER 399L Language Laboratory (1)

A minimum of two academic hours (100 minutes) weekly of practice sessions in the language laboratory or online. Cr/NC only. German minor students must take this course concurrently with GER 314.

## GER 405 The Art of Translating (3)

Intensive practice in translation from German to English, and vice versa, of prose (both literary and media-style), drama and poetry. Thorough attention is paid to the pitfalls of translation as well as to developing the special artistry that good translation demands. Prerequisite: GER 301.

GER 490 Senior Seminar in Area Studies (4)

GER 491 Senior Seminar in Area Studies (4)

GER 495 Special Studies (1-4)
Directed individual study. Prerequisite: consent of instructor.
GER 499 Internship (1-4)

## Gerontology (GERN)

## GERN 300 The Journey of Adulthood (3)

Introduces the study of aging from biological, psychological, sociological, and environmental perspectives. Aging is presented as a normal stage of development with both positive and negative aspects. Specific issues discussed include: health care, housing, income maintenance, and advocacy. Satisfies GE, category E (The Integrated Person).

## GERN 304 Sibling Relationships (4)

An exploration of the role of siblings to personal and family development, with a focus on sibling relationships in adulthood and later life. An emphasis will be placed on the psyco-social context of the sibling relationship in addition to theories of the psychology of the individual. Crosslisted as PSY 304.

## GERN 305 Issues in Later Life Development (2-4)

Focuses on contemporary issues and topics in gerontology. Selected issues incorporating historical, cultural, social, psychological, and policy perspectives may be offered. Consult Schedule of Classes for the specific topic and current unit offering. May be repeated for credit.

## GERN 312 Adult Development Lecture Series (2)

Lectures and presentations on thematic issues in the field of adult development and aging. Speakers are drawn from local community programs, Bay Area research organizations, and academic disciplines. May be repeated for credit. Crosslisted as PSY 312.

## GERN 317 Emotions and Adult Life (4)

Emphasizes the social context and social development of emotional responses throughout adulthood. Analyzes the reciprocal relations between social definitions and subjective feelings in connection with life events throughout adulthood. Addresses both basic emotions, such as fear, anger, pleasure and excitement, and more complex emotions, such as love, jealousy, grief, sympathy, pride, shame and despair. Crosslisted as SOCI 317. Satisfies GE, Category E (The Integrated Person).

## GERN 319 Aging and Society (4)

Examination of aging throughout adulthood. Analysis of theories of aging, their foundations in social science theory, and their policy implications. Exploration of the meanings and consequences of increasing longevity for society and the individual, with emphasis on the social psychological implications for women, minorities, and those who are poor. Satisfies GE, category D1 (Individual and Society). Crosslisted as SOCI 319.

## GERN 332 Death and American Culture (4)

The relation of cultural values to practices, attitudes, and views about death. Application of sociological and psychological theories to topics on death and dying, such as death conceptions, terminal care, suicide, war, and grief. Emphasis on the social psychology of dying, caregiving, grieving and being suicidal. Crosslisted as SOCI 332.

## GERN 399 Student Initiated Course (1-4)

A course designed by an advanced student, approved by the gerontology program, and taught by the student under the supervision of his/her faculty sponsor. Consult the Schedule of Classes for topic to be studied. May be repeated for credit.

## GERN 408 Transitions in Adult Development (4)

This course explores how women and men experience and shape the transitions that occur as they mature socially and psychologically. Inquiry includes normative life cycle transitions as well as unexpected, unusual, or "off-time" transitions and develops understandings of how these transitions shape the development of an individual through adulthood and later life. Crosslisted as PSY 408. Prerequisite: junior standing.

## GERN 421 Psychology of Aging (4)

Analysis of psychological development as a lifelong process. Examination of theories of psychological growth in later life. Exploration of the role of memory for learning and psychological functioning. Study of issues in mental health in adulthood. Crosslisted as PSY 421.

## GERN 422 Living and DYing (4)

Explores personal values and attitudes about life and death and seeks to understand them in relation to our own psychology and to the larger social context. Topics of separation and loss, loss as a transformative process, aging, the dying process, bereavement, suicide, homicide, near-death experiences, mythology, and immortality will be addressed. Crosslisted as PSY 422. Prerequisite: Junior standing. Prerequisite: Junior standing.

## GERN 432 Group Work with Older Adults (4)

This service-learning course introduces students to the fundamentals of group work with older adults. The class provides an overview of the phases of group development and basic skills and techniques for facilitating effective groups. Theoretical perspectives from sociology and psychology are used to examine how groups function, the value they have for older adults, and common themes in groups for older adults. To enhance learning, students go to senior sites in the community to co-facilitating weekly intergenerational dialogue groups. Crosslisted with SOCI 432 and PSY 432. Prerequisite: Junior Standing.

## GERN 438 Psychological Aspects of Disability (3-4)

This course is designed to give participants a better understanding of people with disabilities and an awareness of how society regards them. The disabilities addressed range from traumatic physical injuries through progressive diseases and conditions to mental retardation, alcoholism and emotional disabilities. The class is appropriate for anyone interested in disability, whether for personal or professional reasons. Crosslisted with PSY 438.

## GERN 452 Health Care and Illness (4)

A dual focus on the social organization of health care and the social psychology of illness. Analyses of the structure of care, patient-practitioner relationships, and treatment ideologies. Emphasis on the patient's experience of illness, intimate relationships, and self-images.

## GERN 482 Teaching Internship (1-4)

Students learn the skills of organization and communication of psychological theory and research under the supervision of a faculty mentor. Prerequisites: GERN 300 and consent of instructor.

## GERN 490 Internship Seminar (1)

In this optional seminar, students report on the progress of their internships and discuss institutional procedures and interactional processes particular to their internship sites. Case and data management techniques will be discussed. The seminar allows opportunity for group problem-solving, objective analysis of internship issues, and enhancement of professional networks. Requirements: concurrent enrollment in GERN 499 and consent of instructor.

## GERN 493 Narrative: Theories and Methods (4)

The course examines the role of narrative, or life storying, in human development research. Students will develop a protocol, conduct research in the community using interview methodologies appropriate to the narrative perspective, analyze transcriptions for theoretical and life themes, and develop a final project based on the analysis of the data. Cross-listed as PSY 493.

## GERN 495 Special Studies (1-4)

Students may propose to participate in independent projects or continuing research with the approval and guidance of the faculty member. The special study may extend for more than one semester. May be repeated for credit.

## GERN 499 Gerontology Practicum (1-4)

Field experience in an agency or organizational setting in which the student combines work with academic preparation in programs concerned with aging and/ or health. A-F or Cr/NC.

## GERN 500 Social and Psychological Issues in Aging (2-4)

Analysis of the aging process and it's social implications. Selected issues provide exploration of relationships between psychological and social development in later life. Developmental, historical, cultural, psychological, and policy perspectives may be offered. Consult Schedule of Classes for specific topic. Crosslisted as PSY 500. Prerequisite: graduate standing or permission of instructor. May be repeated for credit.

## GERN 515 Graduate Research Seminar (1-4)

Intensive review of literature in specific areas of concentration. Emphasis is on individual student?s research interests. Includes research design and implementation. Prerequisite: graduate standing or permission of instructor.

## GERN 561 Politics of Health and Aging (4)

An examination of U.S. state and local health care and aging policy and administration. Crosslisted as POLS 509.

GERN 582 Teaching College Gerontology (1-4)
Practical experience of supervised teaching in a college gerontology classroom. Prerequisite: Consent of instructor.

GERN 583 Graduate Research Assistant (1-4)
Students learn advanced research methods and practical research skills under the supervision of a faculty member. Prerequisite: Consent of instructor.

## GERN 595 Special Studies for Graduate Students (1-4)

Students should formulate plans for a project and present them to a faculty member for sponsorship. Special forms for this purpose are available in the department office. Prerequisite: graduate standing and consent of instructor.

## Global Studies (GLBL)

GLBL 199 Freshman Introduction to Global Issues (1)
A flexibly structured discussion seminar designed to enhance entry-level students' knowledge and analysis of prominent global issues. Students will be required to read and report on globally relevant items from the Christian Science Monitor or other approved daily newspapers with entensive international coverage.

GLBL 300 Local Responses to Global Issues: Case Studies from Around the World (3)
This class examines various ways in which individuals take action to solve global social problems in their own local cultural, political and economic contexts.
Students explore the social structures that create social problems, such as human trafficking and political oppression, and how local people adapt to, and seek to change, those structures. Satisfies GE, category D1 (Individual and Society). Prerequisite: a GE, category D5 course.

GLBL 350A Serving the Global Community (1)
Students will read a text, such as Arthur Kleinmanis «What Really Matters», and discuss what it means to live in a world that cries out for human involvement and service. All people, both in developed and developing countries, live on the edge of survival, at constant risk of going under (due to disease, economic collapse, societal chaos, or simply the aging process itself). In the class, we will discuss the importance of being of service in the global effort to live a quality existence. And we will read about individuals who have taken it upon themselves to serve humanity in one way or another. A few examples include: Muhammed Yunus, founder of the Grameen Bank; Paul Farmerss work with patients with infectious diseases; Al Gore's commitment to the environment; Millard Fuller, founder of Habitat for Humanity. Cr/NC only.

## GLBL 495 Special Studies (1-4)

Directed individual study. Prerequisite: consent of instructor.

GLBL 497 Cross-Cultural Community Service Internship (3) A three-unit community service internship is required of all students. This is a supervised program of cross-cultural community service work and study for a governmental or non-governmental agency, completed either at home or abroad. A minimum of 135 hours of supervised work is required. Students will keep a daily journal of their experiences, and upon completion will submit 1) a formal letter from their internship supervisor, verifying hours worked and duties performed; and 2) a four-page essay summarizing their experience in rich personal detail. Information about a broad spectrum of internship options is available from the Global Studies coordinator, whose approval is required for all service internship proposals. Cr/NC only.

## GLBL 498 Capstone Seminar (4)

In spring of the senior year, Global Studies majors will enroll in a seminar devoted to research on globally relevant issues of the student's choosing, in consultation with the instructor. Each student will produce an original research paper on on such issue, examined from various disciplinary perspectives. This project is the capstone requirement for completion of the Global Studies degree. The paper must be approved in its final draft by at least one other qualified faculty member besides the seminar instructor.

## Hebrew (HEBR)

HEBR 101 Elementary Modern Hebrew - First Semester (4)
This course offered as the first semester course in Hebrew Program. As such it addresses appropriate material for the beginning level. The course requires no prior Hebrew background. Students are exposed to spoken Hebrew during each class; they are expected to communicate in Hebrew with one another as well as with the instructor.

HEBR 102 Elementary Modern Hebrew - Second Semester (4) Hebrew for beginners, second level. Elementary oral expression and fundamentals of grammar, cultural readings and beginning practice in composition. Prerequisite: JWST 101 or equivalent or instructor permission.

## History (HIST)

## HIST 150 History: Credit by Examination (3)

Challenge Examination - The state code requirement in world or U.S. history may be satisfied by passing the department's challenge examination. (Dates and times are published at the beginning of each semester.) Instructor consent required.

HIST 201 Foundations of World Civilization (3)
An introduction to the early, classical and medieval civilizations that have most influenced the modern world. Developments (from prehistory to 1500 CE ) include the Eastern traditions of India, China and Japan; the world of Judaism, Christianity and Islam; the classical Mediterranean civilizations; tropical Africa; and the medieval and Renaissance cultures of the emerging West. Required of all history majors. Satisfies GE, category D2 (World History and Civilization). Prerequisite: ENGL 101.

## HIST 202 Development of the Modern World (3)

An introduction to modern and contemporary history from 1500 CE to the present. Course material includes the impact of world expansion on the Americas, Africa and Asia; the growth of nationalism and the national state; industrial, political, and social revolutions worldwide; the wars of the 20th century; and decolonization and the conclusion of the Cold War. Required of all history majors. Satisfies GE, category D2 (World History and Civilization). Prerequisite: ENGL 101.

## HIST 241 History of the Americas to Independence (3)

A comparison of the English, Spanish and Portuguese colonies in America, from the conquest to independence. Topics include: Native Americans, European background, colonial government, religion, economic policies, social relations, slavery, art and literature, independence movements and nation building. Satisfies GE, category D3. Prerequisite: ENGL 101.

## HIST 242 History of the Americas Since Independence (3)

A comparison of the development of the United States after independence with that of Latin America. Topics include: colonial legacies, political leadership, expansion and conflict, regionalism, economic development, reform and revolution, church and state, race relations, education and inter-American relations. Satisfies GE, category D3.

HIST 251 History of the United States to 1877 (3)
A general survey of the major developments in U.S. history from the European discovery and colonization of the Western Hemisphere through Reconstruction. Required of all history majors. Satisfies GE, category D3 (U.S. History), and the state code requirement in history. Prerequisite: ENGL 101.

HIST 252 History of the United States Since 1865 (3)
A general survey of the major developments in U.S. history from the end of Reconstruction to the present day. Satisfies GE, category D3 (U.S. History) and the state code requirement in history. Prerequisite: ENGL 101.

HIST 304 History of the Arabs to 1453 (4)
A study of the Arabic speaking people from the early trading centers of Qataban, Sheba, Petra and Palmyra through the development and spread of Islam to the period of Turkish domination of the Middle East. Particular attention will be devoted to religion, language and literature, mathematics and science.

## HIST 325 Introduction to California History (3)

This is an overview of California history from the Pre-Columbian Period through the present. The first covers conflict and cultural exchange between American Indians, Spanish explorers and missionaries, Mexican nationals, and other newcomers from the eastern United States and the globe. The second half focuses on the economic, social, cultural and political developments in the Twentieth Century California.

## HIST 335 Early China to 1500 (4)

This course is designed to introduce students to the intellectual, political, social and economic traditions that helped make the sixteenth century Chinese state the greatest bureaucratic empire in the world. From the great intellectual efflorescence of the "100 School" period to the far-ranging ocean voyages of the eunuch admiral Zheng He, the course will examine a broad spectrum of topics, including folk religion, gender roles, imperial politics, medicine, art, and literature, among others. The relationship between social, economic and political developments will be emphasized.

## HIST 338 Early Japan to 1650 (4)

This course is designed to introduce students to the intellectual, political, social and economic traditions that underlay the creation of the Japanese emperor system and the rise of warrior government. From the unique aristocratic culture of Heian Japan to the legendary conquests of Hideyoshi, the course will look at a broad range of topics, including religion, gender, politics, art, and philosophy. The course also examines the influence on Japan of Tang China and early modern Europe. The emphasis will be on the relatiohship between social, economic, political, and cultural forces.

## HIST 339 Ancient and Colonial Latin America (4)

An inquiry into the indigenous cultures of Central and South America and an examination of Spanish, Portuguese and other European empires in America. Areas of study may include land, labor, religion, culture, slavery, race, gender, trade and economic development, art and literature, and resistance and revolt.

## HIST 342 Modern Latin America (4)

A study of the major political, economic, social and cultural developments in Latin America since independence, with an emphasis on political movements in the 20th Century, including revolutions in Mexico, Guatemala, Cuba and Nicaragua, socialism in Chile, peronismo in Argentina, modernization in Brazil. The role of the United States in Latin America and modern Latin American art and literature will also be emphasized.

## HIST 348 Race and Ethnicity in Latin America (4)

The course introduces students to the complexities of race and ethnicity in Latin America. By tracing Latin American historical developments from colonialism through the twenty-first century, students explore the debates of what the nation is and who its citizens are. Students examine how Arabs, Jews, Japanese, Chinese, Blacks and the indigenous peoples have positioned themselves in Brazil, Argentina, Peru, Bolivia, Cuba, Mexico, Honduras, Colombia, and Haiti. As these Latin American countries struggle with political instability, as well as economic and social inequality, racial and ethnic questions have become increasingly important in these pluralistic and multiethnic societies.

## HIST 349 Historical Themes (2-4)

Studies of particular themes, issues and topics of special interest to general students as well as to majors.

HIST 351 American Thought and Society to 1865 (4)
An introduction to the major ideas, values, and beliefs operative in American history up to the Civil War. Topics include Puritan religion and culture, the revolutionary and constitutional debates, Transcendentalism, and slavery controversies.

HIST 352 American Thought and Society, 1865 to the Present (4)
An introduction to the major ideas, values, and beliefs operative in American history from the Civil War to the turn of the twenty-first century. Topics include the Social Gospel, pragmatism, socialism, the New Left, feminism, and conservative thought.

## HIST 370 History Forum (1-4)

A semester lecture series on a specific theme or topic presented by members of the department, other SSU faculty and guest speakers. May be audited. Open to the public.

HIST 371 Special Topics and Themes in European History (2-4) Studies of particular themes, issues, and topics of special interest pertaining to European History.

HIST 372 Special Topics and Themes in Latin American History (4)
Studies of particular themes, issues and topics of special interest pertaining to Latin American history.

HIST 375 Special Topics and Themes in American History (1-4) Studies of particular themes, issues, and topics of special interest pertaining to American History.

HIST 376 Special Topics and Themes in World History (2-4) Studies of particular themes, issues, and topics of special interest pertaining to World History.

## HIST 377 Special Topics and Themes in Asian and Pacific

 History (4)Studies of particular themes, issues, and topics of special interest pertaining to Asian and Pacific History.

## HIST 380 20th Century World (3)

An exploration of the origins and development of 20th century ideas, institutions and systems in global perspective. Forces that have united and divided the contemporary world community are examined: imperialism, science, democracy, communism, nationalism, militarism, racism, cultural traditionalism and technological disparities. Satisfies upper-division GE, category D2 (World History and Civilization). Prerequisite: Juniors and seniors only.

HIST 382 The Mediterranean World, 1400-1700 (4)
A study of the Mediterranean region in the early modern era. The course considers economic, political, social, and cultural interaction in the region. Topics covered include the Ottoman Empire, Iberian expansion into North Africa, the Spanish reconquista, and naval warfare and piracy. History majors may consider this an upper-division European history elective.

## HIST 383 The Atlantic World 1450-1800 (4)

Focusing on the development of institutions and spread of movements that connected Western Africa, Northern Europe, North America, the Caribbean and South America in a transatlantic context from 1500-1800, this course considers the topics of state formation, revolutions, empire, migration, religion, economy, race, class and gender in an Atlantic framework. Although the course emphasizes the early modern period, additional consideration is given to the issues facing the Atlantic community in the modern era.

## HIST 391 The Study of History (4)

An examination of various philosophies and methodologies that have shaped historiography. Consideration is given to the relationship between the historian and the climate of opinion, to varying interpretations of historical events, to the place of history as a literary art, and to the techniques of historical research and writing.

## HIST 400 The Roman Republic (4)

A history of the Roman people from prehistory through Julius Caesar. The course covers political, economic, social and cultural change in Rome?s transition from a village of mud huts to Mediterranean empire.

## HIST 401 The Roman Empire (4)

A history of the Roman Empire from Octavian to 476 CE, covering political, economic, social and cultural change in Rome's transition from Mediterranean and European empire to the collapse of the empire in the West.

## HIST 405 Anglo-Saxon England (4)

This course covers development and change in the political, economic, social and cultural institutions of Anglo-Saxon England from the settlement and conquest period (ca. 400 C.E.) to the Norman Conquest in 1066.

## HIST 406 The Crusades (4)

A study of the Crusades provides a microcosm of trends and assumptions in the Europe of the High Middle Ages. The course will focus on interrelationships of church, political structures, economy and military structures, with special attention on the First, Fourth and Sixth Crusades (1095-1270).

## HIST 408 The Early Middle Ages (4)

The Early Middle Ages in Europe from 300-1000. The fusion of classical, Christian and Germanic tribal elements to develop medieval civilization. The course covers political, economic, social and cultural change from the time of Constantine to 1000.

## HIST 409 The High Middle Ages (4)

Medieval civilization from 1000-1400. The course includes the conflict of church and state, growth of national monarchies, the agricultural revolution and growth of commerce, the flowering of medieval culture, and the devastations of the 14th century.

## HIST 410 Early Modern Europe, 1350-1789 (4)

This course offers a comparative study of states and society in Western Europe from the Renaissance to the French Revolution. Topics include the persistence of the humanist tradition, European exploration and conquest, religious reform and ideology, the rise of science, and the crisis of culture and social relations. The emphasis in these centuries that shaped the modern world is social and cultural, but political and intellectual issues are also considered in depth.

## HIST 411 The Enlightenment to World War I (4)

A political, social and cultural history that explores the origins of modern Europe. Topics include the Scientific Revolution, the Enlightenment, the French Revolution, the Industrial Revolution, the impact of Europe on the world, the growth of liberalism and socialism, and the causes of World War I.

## HIST 412 Europe Since 1914 (4)

An overview of 20th century European history and culture. Topics include: the impact of World War I; the appeal of totalitarian systems: communism, fascism, Nazism; Europe's "suicide" during World War II; the reconstruction of Europe; the Cold War; economic integration; and Europe's cultural impact since 1914.

## HIST 414 Gender and Society in Early Modern Europe (4)

This course examines the role of gender in early modern Europe from the late Middle Ages to the end of the eighteenth century. Topics include religion, law, labor, social and family relations. The course also considers the impact of major historical developments such as the Renaissance, Reformation, Scientific Revolution, industrialization, and the rise of the modern state on gender relations.

## HIST 415 Eastern Europe, 1815-1918 (4)

A survey of Eastern European history from the end of the Napoleonic Wars to World War I. Major topics include the collapse of the Austro-Hungarian, Russian, and Ottoman Empires, nationalism, industrialization, fin-de-siecle cultural ferment, and the origins and impact of the Great War.

## HIST 416 Eastern Europe, 1918-1989 (4)

A survey of Eastern Europe from the end of the World War I to the collapse of communism. Major topics include the creation of the new states, nationalism; socialism, the Holocaust, Stalinism, the anti-Soviet uprisings in Warsaw, Budepest, and Prague, and the revolutions of 1989.

## HIST 417 Russian Empire (4)

A survey of Russian history from the origins of Kievan Rus in the ninth century to the Russian Revolution of 1917. Major topics include the Mongols; the development of the Russian autocracy; Orthodoxy; serfdom; the exploration and colonization of Siberia, Central Asia, and Alaska; and Russia's alleged peculiarity vis-à-vis the West.

## HIST 418 Fall of European Communism (4)

A survey of Eastern European and Russian history from Prague Spring in 1968 to the election of Vladimir Putin in 2000. Major topics include the dissident movement; the economic failures of communism; the East German Stasi and the Soviet KGB; the political upheaval of 1989 and 1991; and the ethnic conflict in the Balkans.

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## HIST 419 Soviet Union (4)

A survey of Soviet history from the Russian Revolution of 1917 to the collapse of communism in 1991. Major topics include the revolutionary upheaval of 1917; Soviet policies toward national minorities and religious groups; Stalinism; socialist realism; World War II; the "developed socialism' of the Khrushchev and Brezhnev years; the Cold War; and Gorbachev's glasnost and perestroika reforms.

## hist 420 The French Revolution (4)

A consideration of the causes, events, and results of a key event in French history. The course also examines conditions in eighteenth century France and the historiography of the French Revolution.

## HIST 422 Imperial Spain (4)

Examines Spain and the Spanish world from 1400 to 1700. Includes Spanish expansion and empire building worldwide, as well as the economic, political and social history of Spain itself.

## HIST 423 Spanish Civil War (4)

This course provides an overview of the political, economic, and social circumstances of Spain's late 19th and early 20th century, as well as a detailed examination of the war years and their immediate aftermath. It also examines the significance of the war within the larger context of European history.

## HIST 424 Tolerance and Intolerance in Europe, 500-1500 (4)

What are the roots of tolerance, and intolerance, in Western Europe? This course is a survey of the philosophical, ecclesiastical, legal, cultural, and social attitudes toward and treatment of minorities in Western Europe from the end of the Roman Empire forward.

## HIST 425 Britain 55 BCE то 1399 CE (4)

A survey of the sources and development of political, economic, social and cultural institutions from the Roman invasion of Celtic Britain to the ouster of Richard II. Some topics include the merging of Celtic, Roman and Anglo-Saxon cultures, the development of local self-government and law, the effect of Christianization, Viking invasions and royal government, the rise of towns and commerce, the effects of the Norman invasion, transition from personal rule to centralized government, the growth of Parliament, the Hundred Years' War, the Black Death and the economic disruptions of the fourteenth century.

## HIST 426 Britain and Ireland, 1399-1714 (4)

This course considers the social, political, religious and cultural development of Britain and Ireland from the late Middle Ages to the beginning of empire and industrialization. Topics include the Tudor revolutions in government and religion, relations between kings and parliaments, the evolution of toleration, and ideas about rights and liberty. Special consideration is give to the interaction of the three kingdoms (England, Ireland and Scotland) in the formation of Great Britain and the role of that interaction in the emergence of the British Empire.

## HIST 428 Modern Britain, 1714 - Present (4)

The study of the evolution of British society from the beginning of the eighteenth century to the present. Major political, economic, social and cultural developments are covered including industrialization and the rise of the working class, the emergence of imperial Britain, the Irish Question, the rise of welfare state and the role of decolonization, diversity, and devolution in the emergence of contemporary Britain as well as its place in a united Europe.

## HIST 430 History of the Maya (4)

This course will study the development of complex society in the parts of Mesoamerica dominated by speakers of Maya languages. These peoples first appear in the archaeological record in the middle of the first millennium BCE and persist to the present. The course will include consideration of the experience of the Maya through the period of Spanish contact to the present but will focus on aspects of Maya culture in the Classic period, from about 100 BCE to 800 CE.

HIST 432 Seminar in U.S. Economic History (4)
Economic development of the United States since the Revolution. Topics to be covered include capital formation and the growth of business concentration; distribution of national income; problems of agriculture; growth of the labor movement; patterns of inflation and depression; impact of international relationships on U.S. economic development. Prerequisite: ECON 201A or 201B or consent of the instructor. This course fulfills the History Major Core Senior Seminar requirement.

## HIST 433 History of Mexico (4)

A study of the Mexican people from the early native cultures to the present, with particular emphasis on the Mexican Revolution of 1910 and the major political, social, economic and cultural developments of modern Mexico. Includes major Indian cultures, the Conquest, religion and the Catholic church, literary and artistic expressions, machismo and women, and relations between Mexico and the United States.

## HIST 435 History of Modern China (4)

Explores the profound changes that have taken place in China from around 1600 to the present, including the apogee and decline of the imperial system, the encroachments of the West, the failure of Republicanism, the rise and eventual victory of the Chinese communists, and the consequences of China's adoption of a market-based economy in the 1980s.

HIST 438 Modern Japan (4)
Traces the development of Japanese society from earliest times to the present. While some attention will be given to early aristocratic culture and the emergence of the warrior elite, emphasis will be on the period after 1600, particularly the emergence of Japan as an international power after 1868 and economic success since World War II.

## HIST 445 Topics in American Women's History (4)

Course will address the history of women in America from one of several topical or regional perspectives. Topics may include Law, Women, \& Family in American History, Women \& Work in American History, or Women in the American West. When the class is offered, prospective students should consult the departmental descriptions for the periods and topics to be covered.

## HIST 446 Women in American History (4)

A study of the status and role of women in America from the pre-colonial period to the present. Special attention will be given to the educational, labor, and political reforms of the nineteenth century, women's associations, and the various "waves" of women's rights and feminist activism.

HIST 449 Gender and Sexuality in Latin America (4)
This course examines the changing definitions, institutions, and behaviors related to gender, sexuality, and the formation of families in Latin America from indigenous civilizations to contemporary societies. The course explores how women handled the transition from European colonies to nation-states and how various Latin American men and women in the twentieth century were able to position themselves in "traditional" nation-states. The course concludes by evaluating the social, economic and political changes in Latin America and contemporary social movements.

## HIST 450 Colonial America (4)

A study of the European derived societies and cultures in those parts of North America that later became the United States from the beginnings of European expansion until 1763. Topics may include European backgrounds, relations with native peoples, cultural mixing, labor systems, gender relations, and political, social, and economic characteristics and changes.

HIST 451 The American Revolution and the Early Republic (4) A study of the political, economic, and social institutions and conditions during the long period that included the War of American Independence; the contest between federalism and anti-federalism in the newly-independent United States before 1789; and the emergence of a paradoxical American nation notable for a devotion to chattel slavery and to liberty as well as for technological achievements represented by the Erie Canal.

## HIST 452 Antebellum America (4)

A study of nineteenth-century American society and politics before the Civil War. Topics may include the market revolution, the commercialization of agriculture, territorial expansion and its implications for chattel slavery and Indian policies, the religious movements, reform movements, the emergence of the women's rights movement, and the lure of the West.

## HIST 454 Civil War and Reconstruction (4)

A study of the causes and consequences of the Civil War, the struggles of the Reconstruction era, and the transformation of American soceity and politics in the period between 1850 and the end of Reconstruction.

HISt 456 The Emergence of Modern America (4) A study of the major intellectual, cultural, religious, and social developments in the late nineteenth and early twentieth-century United States. Explores how what materialized in this era--particularly the consumer revolution, professionalization, and secularization--created a modern American culture and a particular set of problems we still deal with today. This is a reading-intensive course that requires students to have a basic working knowledge of the period.

## HIST 457 America through Depression and War (4)

A study of the causes and consequences of the Great Depression, U.S. involvement in World War II, and the advent of the Cold War. Explores the extent to which the challenges of the first half of the 20th century reshaped the United States socially, politically, economically, and culturally, particularly in regard to education, race, ethnicity, gender, and international political participation.

## HIST 458 Modern America since World War II (3-4)

A study of political, social, economic, diplomatic, and cultural change at home and in international affairs as the United States took on a greater role as a global superpower after 1960. Topics may include the Vietnam War, civil rights, student protest, environmental issues, international regional military interventions, feminism, the end of the Cold War, the new conservatism of the 1980s, and the concerns of terrorism.

## HIST 468 Blacks in American History (4)

A study of African culture, social philosophy and political influences in the United States from the pre-Colonial period through the present day. Major emphasis will be placed on black political philosophies and strategies during the periods of Reconstruction, WWI and WWII, the civil revolts of the 1960s, and the contemporary period of political activism.

## HIST 469 Religion in America (4)

An overview of religious beliefs, institutions, and practices from 1630 to the present. Covers major trends in American religion as well as fringe movements, examining the central questions of church and state, religious freedom, and the impact of democracy, science, consumer culture, and professionalization on religious life in America.

## HIST 470 The American South (4)

A regional history of the southeastern United States. The course examines the South from its Native American origins to its antebellum opulence, from the devastation of the Civil War to the development of the modern Sun Belt. An important sub-theme of the class is the journey of African Americans.

## HIST 471 The American West (4)

A regional history of the trans-Mississippi west. Major political, social and economic events relating to the Western United States are explored.

## HIST 472 California History I (4)

Study of California history from the period of European contact through the early years of the 20th century. Special attention is given to the origins, means, and consequences of Spanish expansion into Alta California, to the emergence of Mexican California and to its accelerated Americanization after the Treaty of Gua-dalupe-Hidalgo. The closing weeks of the course will include attention to themes that, though rooted in the earlier period, continue to shape present-day California. Among those themes are water policies, immigrations, and the consequences of California's great size and of its location on the Pacific.

## HIST 473 California History II (4)

Develops a historical perspective on major political, economic and social issues from the early 20th century "invention of California" through depression, war and prosperity to the challenges of continuing growth and declining resources today.

## HIST 474 The Darwin Wars: Science and Religion in American History (4)

Covers the relationship between science and religion in American thought and culture from the early nineteenth century through the twentieth century. Natural theology, the impact of Darwin, the higher criticism, and culture wars are some of the topics covered in this course.

## HIST 477 American Social History (3-4)

Selected review of the social history of the American peoples. Topics may include social mobility, class structure, social movements, gender roles, race and ethnicity, generational differences, the "American Dream," and individualism.

## HIST 482 Judaism and Christianity in the Formative Period (4)

 The course focuses on the history of Palestine, Judaism and Christianity in the period from the Babylonian Exile in 589 BCE to the Council of Nicea in 325 CE. This is the critical formative period for the development of Judaism and Christianity. The course devotes particular attention to the historiography of Jewish and Christian documents written during this period especially two sets of documents that have been discovered in the twentieth century and which have led to a reevaluation of many aspects of Judaism and Christianity: the Dead Sea Scrolls found at Qumran and the Gnostic materials found at Nag Hammadi in Egypt. This course fulfills the History major core senior seminar requirement.
## HIST 487 Introduction to Egyptian Language and Culture (4)

This course is an introduction to the Egyptian language and its hieroglyphic and hieratic writing system. Students learn to read a story written in Middle Egyptian, the classical language of ancient Egypt. This is the version of the language that was the literary and administrative language from about 2250 to about 1350 BCE. The study of the language and writing systems is used to introduce students to related aspects of Egyptian culture and history. May be repeated for credit once.

## HIST 495 Special Studies (1-4)

Individualized studies in historical topics, themes, periods and/or areas beyond the scope of the established curriculum. Open from 1 to 4 units as determined by the department faculty sponsor. Not to be used as a substitute for HIST 498 Senior Seminar. For additional information, please consult the comments on special studies, page 315).

## HIST 496 History Journal (2)

This class will cover all aspects of scholarly journal publication, including management, editing, setting up and implementing an anonymous review system, selection of manuscripts, layout, budgeting, production, sales, and distribution. Students will publish the department student history journal as the final result. May be repeated for credit. Cr/NC only.

HIST 497 Internship in History (1-6)
Field experience in city, county, state and federal agencies and with private business and community organizations. May be repeated three times for credit. Prerequisite: prior arrangement with instructor.

## HIST 498 Senior Seminar (4)

Directed studies in a seminar setting on a particular topic or theme (please see Schedule of Classes for the specific topic selected by the instructor). Combines secondary reading and original research leading to the completion of a research project.

## HIST 499 History Honors Seminar (4)

Individualized studies for advanced undergraduates with at least a 3.50 GPA who want graduate-level academic experience and the honors designation at graduation. Students develop a critical research project in cooperation with a faculty advisor, present their findings, and write a critique of another research paper. Prerequisites: 3.50 GPA, completion of specific major courses, proficiency in a second language and permission of instructor and advisor. This course is not part of major requirements. Consent of department required.

## HIST 500 Historical Methods (4)

Workshop course providing practice in archival research, oral history, descriptive statistics, cultural material analysis and other historical techniques. Recommended for new graduate students, including ITDS.

## HIST 510 Graduate Pro-Seminar (4)

Readings and projects on topics within a common frame of reference, as arranged by instructor and participating students.

## HIST 578 Project Continuation (1-3)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. $\mathrm{Cr} /$ NC only.

## HIST 593 Graduate Internship (2-4)

Experience in professional history, typically in museums, historical societies, and other public history settings, as well as junior college internship programs. Students will produce a professional product, such as a curated exhibit; a research report; a course syllabus; or finding aid. Grade only.

## HIST 595 Special Studies (1-4)

Individualized studies in historical topics, themes, periods and/or areas beyond the scope of the established curriculum. Prerequisites: graduate status and prior arrangement with faculty sponsor and graduate advisor.

HIST 596 Research and Teaching Assistant (1-2)
Directed participation and experience in developing teaching methods, course organization and research techniques. Prerequisite: advanced graduate status and consent of instructor and graduate coordinator.

HIST 597 Graduate Seminar: Historical Themes and Issues (3-4) Advanced studies and/or research projects relating to students' theses or field exam topics. Emphasis upon professional historical writing. Prerequisite: completion of 15 graduate course units and admission to candidacy. Non-majors only with permission of instructor.

HIST 598 Comprehensive Examination Reading and Research (3-6)
Directed reading and research activities. Open only to graduate students with classified standing in history who have selected the comprehensive examination option for the M.A. degree. Preferably taken for credit during the semester in which the comprehensive examinations are scheduled. Prerequisite: classified graduate standing in the history comprehensive option for the M.A. Should be taken for each of the two comprehensive examination fields for a total of 6 units.

## HIST 599 Masters Degree Thesis Research (6)

Extensive individual research and writing project under the direction of the student's thesis committee chair. Preferably taken for credit during the semester in which the M.A. thesis is scheduled for submission in final form. Prerequisite: classified graduate standing in the history thesis option for the M.A. and an authorized Advancement to Candidacy form.

## Human Development (HD)

## HD 318 Human Development: Sex and the Life Cycle (3)

An examination of developmental and evolutionary aspects of human reproductive biology and behavior from fetal through adult stages. Sexual selection and life history perspectives on fetal sex differentiation, gender identity, sex role development, puberty and secondary sexual characteristics, and mate choice. Satisfies GE, category E (The Integrated Person). Crosslisted as ANTH 318. Prerequisite: for ANTH majors: ANTH 201; for non-majors: ANTH 201, BIOL 110 or BIOL 115 or consent of instructor.

## HD 391 Seminar in Human Development (2)

This seminar introduces majors to the interdisciplinary study of human development. It covers major figures in life-span developmental, comparative crossspecies, cross-cultural and multicultural, and class and gender perspectives. Open to human development majors. Prerequisite: Junior standing. Grade only.

## HD 490 Senior Project (1)

A senior capstone course devoted to senior projects required of Human Development students. Prerequisite: Admission to the Human Development Major, graduating senior, and completion of HD 391.

## HD 495 Special Studies (1-4)

The Human Development major encourages independent study as preparation and practice for life-long self-directed learning. Students should formulate plans in consultation with a faculty member. Special forms for this purpose are available in the department office. These should be completed and filed during the add/ drop period. Prerequisite: upper-division Human Development major or consent of instructor. Cr/NC only.

## HD 496 Agency Internships (1-4)

Agency Internship to allow students in Human Development to do supervised internships in a variety of educational and social service settings. Prerequisite: Admission to the Human Development Major and consent of instructor.

## Humanities (HUM)

HUM 200 Written and Oral Analysis (3)
Students practice the techniques of critical reading and thinking, of expository writing, and of oral expression. They examine the principles of thinking, speaking, and writing, with a view to the multitude of purposes for which these activities are crucial. Satisfies GE, category A1 (Written and Oral Analysis). Prerequisites: completion of GE categories A2 and A3.

## HUM 301 War and Peace Lecture Series (3)

Students attend the public War and Peace Lecture Series and meet in discussion groups weekly to address a broad range of issues relating to the problem of war and prospects for peace. Lecturers represent diverse disciplines ~ e.g., economics, physics, peace studies, political science, sociology $\sim$ and institutions. Discussion sessions synthesize material presented in lectures and outside readings and elicit students' personal responses to the issues raised. Reading and writing assignments required. Satisfies GE, category C3 (Ethics and Values).

## hUM 395 Literature, Arts and Education (1-4)

Students will work individually or in teams to present enrichment activities and curriculum to local schools in the Rancho-Cotati School District. Students may do this in conjunction with a current class they are taking or as an independent project.

## HUM 460 Teaching Assistant in Humanities (1-3)

Provides students experience in assisting an instructor in an Humanities course by doing course related research and tutoring.

HUM 495 Special Studies (1-3)
Independent study designed in consultation with an instructor. Students must complete the standard SSU form. Prerequisite: consent of instructor.

## Hutchins School of Liberal Studies (LIBS)

## LIBS 100 The Craft of Writing (2)

A course designed to help students who are experiencing difficulties with writing. While the craft of writing will be emphasized (punctuation, sentence construction, word choice, paragraph and essay organization, etc.), the course will also address how the craft of writing can become the art of persuasion and self-expression.

## LIBS 101 The Human Enigma (12)

Drawing on materials about small-scale societies, ancient cultures and contemporary civilizations, this course concentrates, within a comparative framework, on the development of cultural values, the concept of human nature, the growth of self-awareness, and the emergence of ethical and political thought. Prerequisite: A passing score on the EPT.

## LIBS 102 In Search of Self (12)

This course focuses on the individual, exploring how personal history, unconscious processes, and political and historical environments shape the concept of the self. This course develops a fuller understanding of these influences through scientific investigation, historical exploration and creative expression, employing materials drawn from biology, psychology, sociology, literature, history, politics and the arts.

## LIBS 201 Exploring the Unknown (12)

An investigation of the meaning and limits of knowledge with respect to the nature of the mind and physical reality. These issues are pursued through several different but interrelated fields of study, including literature, art, philosophy, comparative religion and science. The course considers Newtonian and quantum mechanical theories of physical reality, the religions of various cultures, and the functions of myth. The term includes a section focusing on the nature of human creativity.

LiBS 202 Challenge and Response in the Modern World (12) An examination of modern accomplishments and problems that have derived from several sources: the 18th century mechanical models, the Scientific and Industrial Revolutions, and the rise of modern economic theories. Asking how it is possible in the 21st century to live a moral life, the course examines the rise of individualism, the tension between personal and social values, the problems of poverty and the distribution of wealth, and the multiple consequences of modern technology upon the human and natural environments.

## LIBS 302 Introduction to Liberal Studies (3)

An interdisciplinary 'gateway course' examining the meaning of a liberal education, emphasizing seminar skills, oral and written communication, and introducing the Portfolio. It is taken with LIBS 304 or 308 in the first semester of upper-division study. (These are the prerequisites for all upper-division Hutchins courses.) Successful completion of LIBS 302 is required to continue in the Hutchins program. Students must earn a grade of C or higher to continue in Hutchins.

## LIBS 304 We Hold These Truths (3)

The first course in a two-semester sequence, designed to examine fundamental beliefs, assumptions and "self-evident" truths that serve as the foundation for American culture and politics, and then to consider those truths in light of challenges provided by multicultural perspectives.

## LIBS 305 Hutchins Forum (1)

There are two main objectives of the Hutchins Forum. One is to serve as a learning community among Track I students (majoring in Liberal Studies, not pre-creden-
tial). Every other week the Forum functions as a sort of "headquarters" for advising or "laboratory of ideas" to assist students on elaborating the meaning of a Liberal Studies education. And, if they are so inclined, to facilitate their focus on a project or to define their own career interests or academic concentrations. Secondly, in the intervening weeks, the Hutchins Forum also serves as a learning community for the entire Hutchins School. This is accomplished by inviting faculty, alumni and students to share their insights or research with the Hutchins community.

## LIBS 307 Lecture Series (2)

Lecture series. Topics vary.

## LIBS 308 The Practice of Culture (3)

The second course in a two-semester sequence, designed to raise critical questions regarding cultural practices in a variety of settings. Topics may include nonwestern cultures, cross cultural issues, popular culture, and global politics.

## LIBS 312 Schools in American Society (3)

Students will explore basic issues inside the American educational system while fulfilling the state-mandated classroom experience requirement for admission to the credential program.

## LIBS 320A Elective Seminar Core A (3)

Courses under this core area focus on the relationship between the individual human societies. The moral and ethical underpinnings of our patterns of social interaction are investigated with special attention paid to how these affect race, gender, and class relations. Of particular importance to social scientists are questions concerning whether the goals of human dignity, political justice, economic opportunity, and cultural expression are being enhanced or destroyed by specific historical developments, cultural practices, economic arrangements, and political institutions. Examples of seminars in Core A: PostModernism, Quest for Democracy, and Conspiracy Theories. Prerequisite: LIBS 302 prior or concurrently or LIBS 202 prior.

## LIBS 320B Elective Seminar Core B (3)

Included in this core area are courses that deal with science and technology and their relationship to the individual and society. Students build upon their understanding of the sciences and come to grips with some of the crucial issues posed by our culture's applications of science and technology. Students write on topics which address scientific aspects of social issues, the contribution science makes to understanding issues of personal concern, and science as a social endeavor. Examples of seminars in Core B: Health and Healing, Machine as Metaphor, Global Food Web, and the Future of Energy. Prerequisite: LIBS 302 prior or concurrently or LIBS 202 prior.

## LiBS 320C Elective Seminar Core C (3)

Through the arts and humanities we explore what and why humans create. Courses focus on the broad range of experiences in novels, poetry, drama and other literary forms, the visual arts, languages, architecture, music, dance, the writings of philosophers and the thought and literature of the world's religions. Study in the arts and humanities explores the inner world of creativity and individual values as well as the questions about how we arrive at a sense of meaning and purpose, ethical behavior, and a sense of beauty and order in the world. Examples of seminars in Core C: Earth Art, African Art, Memoir, Countercultures, and Minorities in American Cinema. Prerequisite: LIBS 302 prior or concurrently or LIBS 202 prior.

## LiBS 320D Elective Seminar Core D (3)

Courses in this core area deal with such issues as the study of biology as it relates to psychology, consciousness and perceptions of reality, meaning-making as a necessary human achievement, and identity formation as it is understood in the light of developmental psychology. Examples of seminars in Core D: Madness and Civilization, Death and Dying, Personal Geographies, and Empathy. Prerequisite: LIBS 302 prior or concurrently or LIBS 202 prior.

LIBS 321A Elective Course in Core A (3)
Courses in this area satisfy seminar requirement.
LIBS 321B Elective Course in Core B (3)
Courses in this area satisfy seminar requirement.
LIBS 321C Elective Course in Core C (3)
Courses in this area satisfy seminar requirement.
LIBS 321D Elective Course in Core D (3) Courses in this area satisfy seminar requirement.

Libs 327 Literacy, Language and Pedagogy (3)
This course for pre-credential multiple subject students looks at the importance of literacy and language arts in the contemporary world, including the value of writing and literature in the classroom, as well as the significance of literacy as a broader educational and social issue. Students will develop a pedagogy of grammar, examine the use of literature and the written word in the classroom, and create and teach a classroom grammar lesson.

## LIBS 330 The Child in Question (3)

A close inspection of child development and elementary school pedagogy, emphasizing relevant social and cultural factors as well as major theoretical views of physical, emotional and personality growth. Subjective views of childhood experience will be contrasted with observations. Readings from Erikson, Freud, Hall, Goodall and others.

## LIBS 336 Special Topic Workshops (1-4)

Topics will vary from semester to semester. May be repeated for credit.

## LIBS 337 Special Literary Project (2)

Faculty proposed special projects. For students working on faculty-initiated research projects. May be repeated for credit.

## LIBS 338 Special Art Project (2)

Faculty proposed special projects. For students working on faculty-initiated research projects. May be repeated for credit.

## LIBS 339 Special Drama Project (2)

Faculty proposed special projects. For students working on faculty-initiated research projects. May be repeated for credit.

## LIBS 340 Special Science Project (2)

Faculty proposed special projects. For students working on faculty-initiated research projects. May be repeated for credit.

LIBS 341 Zephyr Publication (1)
In this course we will be putting together a Volume of Zephyr, the Hutchins Literary Journal. Students will create the thematic structure and recruit written and visual work from the entire Hutchins Community (including Lower- and Upper- Division students, faculty, staff, Degree Completion students, Masters students and alumni). Students will also make all decisions regarding selection and editing, as well as organization and layout. The semester will culminate with the publication and distribution of Zephyr and the organization of a public reading for the Hutchins community.

## LIBS 342 Hutchins Community Art Show Preparation (1)

This course will give students a forum to create a Hutchins Community Art Showing. During class time, students will choose the dates and venue for the art showing, secure the necessary venue, publicize the event, create a call for entries, process the entries, decide which entries will be shown, hang show, plan and conduct reception, take down show.

## LIBS 360 Special Topic Workshops (1-2)

Topics will vary from semester to semester. May be repeated for credit. Cr/NC only.

## LIBS 361 Hutchins Pedagogy Project (2)

The Hutchins Pedagogy Project workshop will combine project-based learning, Web CT and in-class training to teach Hutchins students (future teachers) how to implement seminars and/or act as tutors in elementary, AVID, and high school classrooms. Hutchins students will use individual and small group work in addition to whole-class seminar discussions to increase critical thinking and collaboration skills of students in local Sonoma County classrooms.

## LIBS 370 Seminar: Creative Process (2)

A series of exercises designed to give students fuller access to their capacities and to provide practice in putting those capacities to productive use $\sim$ in the arts, in problem solving and in daily life.

## LIBS 371 Seminar: Self-Awareness (2)

Methods of exploring and expanding self-awareness vary from semester to semester, and may include such techniques as autobiography, intensive journalkeeping, Gestalt exercises, dream analysis and meditation.

## LIBS 395 Community Involvement Program (1-4)

Students volunteer for unpaid placements within the community approved by the coordinator of the Hutchins Internship/Field Experience Plan. These placements include work in social service, education and the media. Students participate in four meetings per semester focusing on work-related issues; they also prepare a short paper about their placement and keep a time log. Students may take up to 6 units in CIP, a maximum of 4 in any one semester. One unit is equivalent to 30 hours of volunteer work per semester. Units count as electives for graduation. They may not be applied to the Hutchins major requirement. For the university's CIP regulations, please see page 304. Cr/NC only.

## LIBS 396 Field Study (1-4)

Field Study for juniors and seniors is a project conducted outside of the university classroom setting that is taken for credit/no credit. It may include work that is literally outside in the field, or other hands on experience (e.g., a research study). Field Study projects are co-designed by a student and a sponsoring faculty member; or a faculty member may design a project, with student participation solicited. A student consults with a faculty member on the project, develops a plan of study, including number of units, project outcomes, number of meetings with the faculty sponsor and deadline for completion. A Project Contract is submitted to Admissions after the beginning of the semester and before last day to add classes. Consent of instructor. Cr/NC only.

## LIBS 397 Study Away (1-4)

Study Away for both juniors and seniors is an educational experience that occurs away from SSU that is taken for credit/no credit. This might include study in the U.S. or abroad in an exchange program or an independently designed project. Study Away projects are co-designed by a student and a sponsoring faculty member or committee, with the terms of study and the expected outcomes written in contract form. A written report is required for Study Away projects upon completion. It is suggested that you begin the planning process early in the semester before you will undertake Study Away. The student must also follow University policies for leaving campus for Study Away. Required forms and procedures are available in the International Studies office. These forms must accompany the Project Contract and the Project Form to be signed by the sponsoring faculty and the Hutchins Provost. Prerequisite: completion of LIBS 302.

## LIBS 399 Student Instructed Course (1-2)

The Hutchins faculty welcome proposals from students in the final stages of the major who, in consultation with a faculty advisor, would like to design and offer an interdisciplinary seminar on a topic of special interest to them. Guidelines for student-instructed courses are available in the Hutchins office. Students may count two student-instructed courses (Cr/NC only) as elective units in the Hutchins major. Cr/NC only. May be repeated once for credit.

## LIBS 402 Senior Synthesis (4)

A capstone course required for the Hutchins major. Drawing on the papers collected for his or her portfolio, the student prepares a major paper and a Senior Project synthesizing aspects of that individual's own intellectual development. Each student makes an oral presentation of his or her project at the end of the semester. Must be taken in the student's final semester in the major.

## LIBS 403 Senior Synthesis - Study Away (4)

A capstone course required for the Hutchins major. Drawing on the papers collected for his or her portfolio, the student prepares a major paper synthesizing aspects of that individual?s own intellectual development. This is done in a study away situation. Also available for students choosing a minor in Hutchins.

## LIBS 410 Independent Study (1-4)

Independent Study for seniors is an individualized program of study taken for a letter grade with a Hutchins faculty sponsor who is willing to supervise it. A student consults with a faculty member on a topic, develops a plan of study, including number of units, project outcomes, number of meetings with the faculty and deadline for completion. A Project Contract is submitted to Admissions after the beginning of the semester and before the last day to add classes. May be repeated for credit. Prerequisites: LIBS 302 and consent of instructor.

## LIBS 411A Service Learning: Youth Issues (3)

SSU students taking this course will go to local elementary and secondary schools and conduct seminar discussions that create a learning community.

## LIBS 420A Elective Seminar Core A (3)

Courses under this core area take as their focus the relationship between the individual and all kinds of human groups. The moral and ethical underpinnings of our patterns of social interaction are investigated with special attention paid to how these do and should affect issues such as race, gender, and class. Of particular importance to social scientists are questions concerning whether the goals of human dignity, political justice, economic opportunity, and cultural expression are being enhanced or destroyed by specific historical developments, cultural practices, economic arrangements, or political institutions.

## LIBS 420B Elective Seminar Core B (3)

Included in this core area are courses that deal with science and technology and their relationship to the individual and society. In today's world, any well-educated person should understand, at least at a general level, both the methods of science and important information which has been discovered through their applications. Here students build upon their understanding of the sciences and come to grips with some of the crucial issues posed by our culture?s applications of science and technology. Students write on topics which address the idea of the material world: scientific aspects of social issues, the contribution science has made to your understanding of an issue of personal concern, your sense of science as a social endeavor.

## LiBS 420C Elective Seminar Core C (3)

Through the arts and humanities we explore what and why humans create. These fields include the broad range of experiences in literature, epics, poetry, drama and other literary forms, the visual arts, languages, architecture, music, dance, the writings of philosophers and the thought and literature of the world's religions. Study in the arts and humanities explores the inner world of creativity and individual values as well as the questions about how we arrive at a sense of meaning and purpose, ethical behavior, and a sense of beauty and order in the world.

## LiBS 420D Elective Seminar Core D (3)

What one endorses as really "real" is a result of many factors, some of them psychological, some biological, some philosophical, some social, and so forth. Courses in this core area will deal with such issues as the study of biology as it relates to psychology, consciousness as it affects and is affected by perceptions of reality, meaning-making as a necessary human achievement, and identity formation as it is understood in the light of developmental psychology and the nature-nurture controversy. You will have the opportunity to formulate your own thoughts about the status of human consciousness and reality and include that formulation in this section.

## LIBS 480 Seminar Facilitation (1-3)

This course provides students with an opportunity to enhance their facilitation skills through serving as a seminar leader in large lecture/discussion courses. Requires consent of course instructor.

## LiBS 497 Modern Media Dialogue Series (1)

The Modern Media Dialogue Series will provide students the opportunity to learn about the many aspects and consequences of our media age, from journalism and censorship to new forms of communication and information. Students will participate in a weekly dialogue with an invited guest and community members to deepen their understanding of modern media forms and practice.

## LIBS 499 Internship (1-5)

All students develop an internship working outside the classroom. Students also prepare a portfolio project based upon a larger topic implicit in their internship. They participate with other interns in an internship class once a week to discuss their internship experience and issues related to the larger society. Grade only.

## LIBS 595 Special Studies (1-4)

Individualized studies in areas beyond the scope of the established curriculum.

## Interdisciplinary Studies (ITDS)

## ITDS 200 California Cultural Analysis (3)

Within the context of readings related to California history and culture and their role in shaping contemporary California life, students practice the techniques of expository writing, oral expression, and reading and thinking critically. Satisfies GE Category A1. Prerequisites: completion of GE Categories A2 and A3.

## ITDS 280 Introduction to California Culture Studies (3)

Introduction to California culture studies and its multi-ethnic, interdisciplinary and multi-disciplinary perspectives, tasks, and methods. Course includes the study of a variety of California regionalisms and a range of topics from California geology to California philosophy and art. Students do fieldwork and take field trips to sites of historical and cultural interest (Jack London Park, Angel Island, Fort Ross, San Francisco Mission District, State Capitol, Steinbeck County). Fulfills GE requirement in C4.

## ITDS 297 Selected Topics (1-4)

Exploration of basic human problems. Resource persons from various disciplines will participate. Please see the Schedule of Classes for areas to be emphasized. May be repeated for credit.

## ITDS 300 California Cultural Studies Faculty Forum (1-3)

 California cultural studies faculty, students, and guests present topics for discussion on on-going research and study. Cr/NC may be repeated for credit up to 3 units. Prerequisite: major or minor in California cultural studies program, upper-division standing in programs affiliated with California cultural studies, or permission of the California cultural studies director.
## ITDS 301 Lecture Series (1-3)

A public lecture series on topics of general interest. Two units requires regular attendance and a final paper. Students who take three units additionally meet once a week in discussion groups and do further reading of selected texts.

ITDS 302 Topics and Themes in California Culture Studies (3) Course includes California Regionalism, San Francisco, Representing Los Angeles, California and the Environmental Imagination.

## ITDS 345 Directed Reading and Writing Tutorials (1-4)

Directed studies of California themes and topics within the context of small group tutorials. Students develop individual reading projects and complete a capstone project or thesis. Prerequisites: major or minor status, participation in California cultural studies? integrated GE program, or consent of California cultural studies coordinator. Note: ITDS 345 may be taken for 1-2 units as part of the integrated GE program.

## ITDS 395 Community Involvement Program (1-3)

An experience involving the application of methods and theories to community service work. Requirements: approval of a relevant project, a minimum of thirty (30) hours per unit of credit in the actual working situation, regular consultation with a faculty sponsor, and a paper. Prerequisite major or minor standing and permission of program director.

## ITDS 397 Selected Topics (1-4)

Exploration of basic human problems. Resource persons from various disciplines will participate. Please see the Schedule of Classes for areas to be emphasized. May be repeated for credit.

ITDS 444 Theory and Research Methods (4)
Introduction to theory, method and research strategies associated with regional cultural studies across a range of disciplines. Students engage in fieldwork and institutional projects (preservation, restoration, cultural resource development, collection, analysis and description of cultural artifacts and historical preservation).

## ITDS 486 Internship in California Cultural Studies (1-4)

Students apply California cultural studies theory and practice as interns with public and private agencies, corporations, and institutions. Internships require the approval of California cultural studies faculty sponsor and director; a minimum of 45 hours of work per unit per semester. Includes regular consultation and evaluation by the faculty sponsor. Cr/NC only. May be repeated for credit.

## ITDS 495 Special Studies (1-4)

Prerequisite: approved status as a special major or major in interdisciplinary studies.

## ITDS 496 Sr Project in California Cultural Studies (1-3)

Directed Studies in seminar and tutorial settings on topics selected by individual students. Combines secondary reading and original research leading to the completion of a capstone research thesis or project. Project is graded by supervising CCS faculty and is presented at the Faculty Forum.

## ITDS 497 Special Topics (1-4)

Exploration of basic human issues. Resource persons from various disciplines will participate. Please see the Schedule of Classes for areas to be emphasized. May be repeated for credit.

## ITDS 498 Internship (1-4)

An internship is a supervised program of work and study in a governmental, community service, technical, business, or educational setting. ITDS 498 (or 598) is designed for students in the Special Major/Interdisciplinary Studies program or in one of the faculty initiated special majors. Forty-five hours of on-the-job work are required for each unit of credit. For grade or $\mathrm{Cr} / \mathrm{NC}$, as determined by the student's program.

## ITDS 499 Senior Project (3)

A senior paper or project to be prepared under the supervision of the student's Faculty Committee. The senior paper or project should present the synthesis of the student's interdisciplinary program of study. The paper or project will be graded by the student's Faculty Committee and will be presented orally to the ITDS Committee at the completion of the student's senior year.

## ITDS 578 Project Continuation (1-3)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. $\mathrm{Cr} /$ NC only.

## ITDS 595 Special Studies (1-4)

Prerequisite: approved status as a classified major in interdisciplinary studies.

## ITDS 598 Internship (1-4)

An internship is a supervised program of work and study in a governmental, community service, technical, business, or educational setting. ITDS 498 (or 598) is designed for students in the Special Major/Interdisciplinary Studies program or in one of the faculty initiated special majors. Forty-five hours of on-the-job work are required for each unit of credit. For grade or $\mathrm{Cr} / \mathrm{NC}$, as determined by the student's program.

For MA action for a viable future students only. Design and implementation of culminating project and written component. Prerequisites: completion of individual study plan coursework and consent of student's graduate committee chair.

ITDS 599A Thesis and ITDS Research (2-4)
ITDS 599B Thesis and ITDS Research (2-4)

## Jewish Studies (JWST)

JWST 200 Introduction to Jewish Studies (3)
Introduction to Jewish Studies is an interdisciplinary survey course that introduces students to the culture, literature, history, philosophy, religion, and academic traditions of Jewish people from antiquity to the present. In this course, we will analyze how Jewish people have deployed a wide range of intellectual discourse to gain an understanding of the meaning of their identify as Jews. The course will also provide a historical overview of the Jewish Diaspora, from the Middle East to Africa to Europe to the America. The readings and class discussions will divide into three parts covering the ancient, medieval, and modern periods.

## JWST 250 Introduction to Judaism (4)

A survey of Jewish religious traditions from the Bible through the present day. Evolution of major religious ideas through classical texts.

JWST 251 Topics in Jewish Biblical Studies (3-4)
Introduction to the academic study of the Hebrew Bible (Old Testament) through a variety of scholarly approaches to the Bible, including historical and literary analysis. Emphasis is on developing skills in critical thinking, reading, and writing about the Bible. Students can repeat course for credit; topics will vary per semester.

JWST 341 Topics in Jewish History: Judaism and Christianity of the Greco-Roman Period (4)

JWST 350 Jewish Religion and Biblical Values (3)
This course explores the ideas - religious and political - and texts that have shaped Jewish thought and practiced from its formation to the present.

## Kinesiology (KIN)

## KIN 101 Physical Education Activities (1-2)

Activities classes. Classes are conducted in the following activities: aquatics (swimming, physical conditioning swimming, water polo and scuba). Individual sports (adapted activities, martial arts, tennis, indoor rock climbing). Fitness (aerobics, conditioning, pilates, jogging/running and weight training). Dance (recreational, yoga). Outdoor activities. Team sports (basketball, soccer, softball, volleyball). Course offerings vary from semester to semester. Most sections meet twice weekly, with some sections meeting at specially arranged times according to the nature of the activity. Students may take, for credit, as many different 101 classes as desired. The same 101 activity class may be repeated once for credit. Cr/NC only.

## KIN 120 Motor Skill Development in Public Schools (2)

Prepares students to teach motor skills to school-aged children. Topics including motor development, motor learning and instructional design as related to motor skill acquisition are introduced. Students task analyze a variety of motor activities, plan developmentally appropriate lessons, and teach peer and public school-aged children in local schools.

## KIN 201 Foundations of Kinesiology (3)

This course is designed to orient students to kinesiology as a field of study. Students will be exposed to multiple disciplines within kinesiology. By engaging in discussions, activities, and field observations, students will explore and become prepared to select a career path within the field.

## KIN 217 Personal Fitness and Wellness (3)

Designed to introduce the concepts and practices involved in creating a personal life-long fitness and wellness program. General health topics will be emphasized, specifically cardiovascular fitness, nutrition, stress management, disease prevention, and current health tre4nds and topics. Students will develop personal action plans for enhancing personal health and well-being. Satisfies GE Area E.

## KIN 230 Introduction to Field Experience (1-2)

Provides lower division students an opportunity to sample work experiences in a variety of settings in physical education, adapted physical education, athletic training, or exercise science. Thirty hours of supervised field work for each unit of credit. This course does not meet the field work requirement in the kinesiology major concentrations. Prerequisites: Overall 2.0 GPA and departmental approval.

## KIN 240 First Aid and CPR (1)

Study of the basic principles and practical applications of first aid and C.P.R. techniques required by a first-aider to provide initial emergency care necessary to sustain life and minimize and consequences of injuries or sudden illness until qualified medical personnel can arrive.

## KIN 300 Analysis of Motor Performance (1-2)

Lecture, activity laboratory. A series of 1-unit courses. Each course is designed to provide students with an understanding of the mechanics of the neuromuscular skills and functional application of the activities presented within the course. In addition students will be involved in task analyzing and teaching skills/activities contained within each course.

## Kin 301 History and Philosophy of Human Movement (4)

An introduction to significant historical and philosophical considerations in the development of human movement. Contemporary philosophical issues as well as active physical participation with an experiential emphasis will be studied. Prerequisite: ENGL 101, upper-division standing and consent of instructor for nonkinesiology majors.

## KIN 305 Psychological Bases of Human Movement (4)

Introduction to psychological factors influencing learning and performing motor skills and the psycho-social influences of sport, exercise and physical activity on the developing individual. Emphasis will be on the application of current motor learning, sport and exercise psychology theories on such topics as learning, motivation, goal setting, stress, anxiety, group dynamics, leadership, moral development, and exercise adherence. Prerequisite: ENGL 101, WEPT, Upper Division standing, and consent of instructor for non-Kinesiology majors.

## KIN 307 Computer Applications in Physical Education (3)

Provides students with information on, training in, and experiences with various information technology methods and applications related to Physical Education. Two hours of lecture and two hours of laboratory activity per week. Prerequisites: Consent of instructor.

## KIN 311 Selected Topics (1-4)

Selected upper-division courses that are taught on a one-time basis.

## KIN 315 Sociology of Sport (3)

Examines and utilizes basic sociological concepts and demonstrates their manifestations in the teaching of physical education and sports. Prerequisite: ENGL 101. Priority given to Kinesiology majors.

KIN 316 Women in Sport: Issues, Images, and Identities (3)
This course is designed to introduce students to an overview of issues, images and identities of women participating at various levels of sport in the United States. Attention will be given to the historical, social, political, and economic contexts that have influenced the American woman's experiences in sport. Prerequisites: Junior standing or with consent of instructor.

## KIN 320 Curriculum, Pedagogy and Assessment (3)

This course is designed to explore different styles of teaching, management strategies, and assessment techniques used in physical education. Effective teaching characteristics will be discussed and opportunities given for students to put these into practice. Prerequisite: KIN 300 (3 courses) or consent of instructor.

KIN 325 Introduction to Adapted Physical Education (3)
An introduction to the scope, basic concepts and teaching methods of adapted physical education; a study of selected disabiities, with a primary focus on implications for physical education. Course includes 18 hours of practical experience in the field.

## KIN 330A Measurement and Evaluation (1)

A survey of descriptive statistics. Includes measures of central tendency, variability, scale scores, correlation and graphing with applications in kinesiology. Meets first half of the semester. Required for all kinesiology majors. Prerequisite: GE math.

## KIN 340 Emergency Response (3)

Study of the principles and practical applications of advanced first aid techniques required to provide the initial emergency care necessary to sustain life and to maintain life support until the victims of accidents or sudden illness are cared for by qualified medical personnel.

KIN 342 Principles of Musculoskeletal Injuries (3)
Lecture, laboratory. Designed to show students the proper methods of recognition, evaluation, and treatment of musculoskeletal injuries to the upper and lower extremities. Comprehension of anatomy, mechanism-of-injury, and pathology are stressed. Fee of \$10 required for this course. Prerequisite: BIOL 220.

## KIN 350 Biomechanics (4)

Lecture, laboratory. Presents the quantitative and qualitative analysis of human movement and the anatomic concepts needed for understanding human movement in relation to mechanical effects such as application of force in relation to center of mass, displacement, velocity, acceleration of bodies, and buoyancy. Emphasis is on understanding and application of principles to any movement pattern. Prerequisites: BIOL 220 and GE math.

## KIN 360 Physiology of Exercise (4)

Lecture, laboratory. Study of the acute and chronic effects of human activity and exercise. Laboratory and field experiences in selected areas, including exercise metabolism, skeletal muscle and cardiopulmonary physiology, body composition estimation, and nutrition as they pertain to clinical, fitness and sports settings. Prerequisites: GE math; BIOL 115 and BIOL 224.

## KIN 371 Intercollegiate Baseball, Men (2)

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

## KIN 372 Intercollegiate Basketball, Men (2)

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

## KIN 373 Intercollegiate Cross Country, Men (2)

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

## KIN 374 Intercollegiate Football, Men (2)

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

## KIN 375 Intercollegiate Soccer, Men (2)

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

## KIN 376 Intercollegiate Tennis, Men (2)

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

## KIN 377 Intercollegiate Track and Field, Men (2)

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

## KIN 378 Intercollegiate Golf - Men (2)

Activities include: soccer, tennis, basketball, baseball, and golf. May be repeated for credit.

## KIN 381 Intercollegiate Basketball, Women (2)

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and soffball. May be repeated for credit.

## KIN 382 Intercollegiate Cross Country, Women (2)

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

## KIN 383 Intercollegiate Soccer, Women (2)

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

KIN 384 Intercollegiate Softball, Women (2)
Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

## KIN 385 Intercollegiate Tennis, Women (2)

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

## KIN 386 Intercollegiate Golf, Women (2)

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

KIN 387 Intercollegiate Volleyball, Women (2)
Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

KIN 388 Intercollegiate Women’s Water Polo (2)
Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

KIN 395 Community Involvement Program (1-4)
Provides majors and non-majors the opportunity to gain volunteer experience working with individuals with disabilities in designated on-campus and community placements involving physical activity. Thirty hours of verified, supervised work and scheduled meetings with the instructor are required for each unit of credit. Requirements include a daily journal and portfolio. Prerequisite: permission of instructor.

KIN 400 Elementary School Physical Education (3) An introduction to and practice in applying the concepts and principles of developmentally appropriate physical education for children. Prerequisite: upper-division majors in kinesiology or multiple-subject credential candidates or by consent of instructor.

## KIN 404 Theory of Coaching (2)

A survey of issues encountered by coaches in all sports. Topics will include, but not be limited to communication with players, colleagues and administration, ethical issues and responsibilities, coaching philosophies, relations with media and community, time management, coach and athlete motivation, mental training skills and equipment and facilities management. Prerequisite: ENGL 101, Upper Division standing, and consent of instructor for non-Kinesiology majors.

## KIN 410 Lifespan Motor Development (3)

Survey of the development of perceptual-motor function from birth through aging, with emphasis on gross motor performance.

## KIN 425 Seminar in Adapted Physical Educ (3)

Exploration and discussion of current research and professional issues in the field of adapted physical activity. Prerequisite: KIN 325 or equivalent. Corequisite: 1 unit KIN 430C.

KIN 426 Individualized Assessment and Program Design (4) Selection, administration and interpretation of motor assessment instruments. Planning and developing appropriate activities and programs to meet individual needs for children and adults with disabilities. Prerequisites: KIN $325,330 \mathrm{~A}$, and 410 or consent of instructor.

KIN 427 Individuals with Disabilities in Educational and Recreational Settings (3)
To explore the role of psychosocial context in the design and implementation of effective learning environments for youth and adults with disabilities, using service-learning pedagogy.

## Kin 430A Field Experience in Physical Education (1-3)

Provides upper-division kinesiology majors experiences in teaching in K -12 public or private school setting. Course requirements include a work journal, development of a personal portfolio, and verification of completion by immediate supervisor. Prerequisites: completion of 10 units in physical education concentration related to specific field experience; C average in major and support courses.

KIN 430C Field Experience in Adapted Physical Education (1-3) Provides upper-division kinesiology majors specializing in adapted physical education an opportunity to work with individuals with disabilities in school or other settings. Course requirements include a daily journal, development of a personal portfolio, and verification of completion by immediate supervisor. Prerequisites: KIN 325 ; C average in major and support courses.

## Kin 430D Field Experience in Exercise Science (1-3)

Provides qualified upper-division students an opportunity to gain experience in either applied exercise physiology, biomechanics, or physical therapy. Course requirements include the development of a personal portfolio, a log of completed hours, a daily journal describing experiences, and verification of completion by immediate supervisor. Prerequisites: completion of a minimum of three support and/ or core courses related to the field experience; C average in major and support courses.

## KIN 430E Field Experience in Lifetime Fitness (1-3)

Provide qualified upper-division students an opportunity to gain experience private and public fitness settings. Course requirements include, but are not limited to a daily journal describing experiences, a log of completed hours, and verification of completion by an immediate supervisor. Prerequisites: completion of a minimum of three support courses and/or core courses related to the field experience, C average in major and support courses.

Kin 442 Musculoskeletal Evaluation, Training and Treatment (4) Lecture, laboratory. Students learn the HIPS technique for evaluating musculoskeletal conditions and injuries. The prevention of musculoskeletal injuries and proper disposition of the patient will be stressed. The theoretical basis of rehabilitation and the physics/mechanics of therapeutic modalities, as well as common musculoskeletal injuries to the axial skeleton will be studied. Prerequisite: KIN 342.

## KIN 446 Exercise Instruction (3)

This course provides each student with practical learning experiences designed to develop the skills needed to be a competent exercise instructor/leader. The course allows students to put into practice their knowledge of exercise from their previous coursework in biomechanics, exercise physical and conditioning for performance and health. Students will be involved in group-centered instruction, field observation, laboratory experiences, and skill execution practicals. Prerequisites: KIN 350 and KIN 360.

## KIN 460 Conditioning for Performance and Health (3)

A review of methods for the conditioning of a broad range of people from exercising adults through competitive athletes. Emphasis during the first half of the semester will be on topics related to adult fitness, including cardiorespiratory fitness, resistive training, flexibility, weight management, and exercise for special populations. During the second half of the semester topics related to athletes will include endurance training, training for strength and power, nutritional considerations for athletes, and the use of various putative ergogenic aids. Prerequisite: KIN 360 .

## KIN 495A Special Studies in Physical Education (1-4)

Includes completion of a project designed to meet a specialized advanced study need. The student should have prerequisite skills. The project should be planned and described in writing, in consultation with and with the consent of the faculty advisor. There are four areas of study: 495A Special Studies in Physical Education; 495C Special Studies in Adapted PE; 495D Special Studies in Exercise Science; and 495E Special Studies in Lifetime Fitness.

## Kin 495C Special Studies in Adapted Physical Education (1-4)

 Includes completion of a project designed to meet a specialized advanced study need. The student should have prerequisite skills. The project should be planned and described in writing, in consultation with and with the consent of the faculty advisor. There are four areas of study: 495A Special Studies in Physical Education; 495C Special Studies in Adapted PE; 495D Special Studies in Exercise Science; and 495E Special Studies in Lifetime Fitness.
## KIN 495D Special Studies: Exercise Science (1-4)

Includes completion of a project designed to meet a specialized advanced study need. The student should have prerequisite skills. The project should be planned and described in writing, in consultation with and with the consent of the faculty advisor. There are four areas of study: 495A Special Studies in Physical Education; 495C Special Studies in Adapted PE; 495D Special Studies in Exercise Science; and 495E Special Studies in Lifetime Fitness.

## KIN 495E Special Studies: Lifetime Fitness (1-4)

Includes completion of a project designed to meet a specialized advanced study need. The student should have prerequisite skills. The project should be planned and described in writing, in consultation with and with the consent of the faculty advisor. There are four areas of study: 495A Special Studies in Physical Education; 495C Special Studies in Adapted PE; 495D Special Studies in Exercise Science; and 495E Special Studies in Lifetime Fitness.

## KIN 497 Selected Topics in Kinesiology (1-4)

A single topic or set of related topics not ordinarily covered by the kinesiology major curriculum. May be repeated for credit with a different topic.

KIN 500 Introduction to Scholarly Inquiry in Kinesiology (2) This course is designed to prepare graduate students in Kinesiology to formulate and carry out a research project as part of his/her M.S. degree. Both theoretical and practical aspects of research will be included: examination of research paradigms, critical review of literature, effective design of a study, concepts of statistical and qualitative analysis of data, and the use of the library and computers as research tools. Prerequisite: KIN 330A or a course in descriptive statistics; an introductory computer course; and graduate standing.

Kin 505 Seminar in Psychological Bases of Human Movement (3) A critical review of current literature regarding the social and psychological factors involved in participation in sport, exercise and physical activity on individuals and group over the lifespan. Prerequisite: KIN 305 and KIN 315 or equivalents.

## KIN 520 Pedagogical Methods (3)

This course will examine instructional theories and models of teaching while focusing on practical applications that can lead to improvement of teaching physical education. The teaching of physical education will be analyzed in context with various teaching approaches, systematic observation techniques, principles of supervision, and will endorse a "theory into practice" approach to teacher effectiveness. Prerequisite: KIN 320 or its equivalent.

## KIN 521 Curriculum Design and Analysis in Physical Education (3)

Intensive study, evaluation, and application of current developments in curriculum theory and practice for public school Physical Education. Includes review of literature related to curriculum development, review of professional standards, examination of curricula models, leading to the design of an innovative physical education curriculum plan. Prerequisite: KIN 520 Pedagogical Methods or its equivalent.

## KIN 522 Research and Issues in Physical Education Teacher Education (3)

The central focus of this course is to introduce students to literature and research on teacher preparation, effective teaching, and research on effective schools. This includes an understanding of the research questions pursued, the methodologies employed, and the results generated. Prerequisite: KIN 520 Pedagogical Methods or its equivalent.

## KIN 525 Individualized Movement Programs for Rehabilitation

 Education (3)The student will learn how to formulate individualized exercise programs for rehabilitation/development of fitness skills in people with orthopedic injuries, chronic diseases, and disabilities. This course will take both a medical and functional point-of-view in dealing with development/return of quality-of-life skills, as well as advanced athletic skills. Prerequisites: Human Anatomy/Human Physiology/Athletic Injuries/Adaptive P.E.

## KIN 550 Seminar in Biomechanics (2)

This course uses topical published research articles to discuss the quantitative and quantitative analysis of human movement and their application for Kinesiology professionals. Topics will vary, however, the underlying objective will be to understand aspects of the research presented in these articles including: appropriateness of research design, methodology, statistical methods, analysis techniques and limitations of studies. Prerequisite: KIN 350 or equivalent.

## KIN 560 Advanced Physiology of Exercise (2)

This course will center around the presentation and discussion of topics related to the application of exercise physiology to school, athletic, and adult fitness settings. Topics will include metabolism and nutrition as it pertains to exercise, the muscular system and resistive training, body composition and weight loss, the cardiovascular system as it relates to endurance training and cardiac rehabilitation, and exercise in extreme environmental conditions, and commonly used ergogenic aids. Prerequisite: KI 360 or equivalent.

## KIN 578 Project Continuation (1-3)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. $\mathrm{Cr} /$ NC only.

KIN 590 Graduate Internship (3)
KIN 590 students will have opportunity to apply Kinesiological theories and methods in field experiences related to Kinesiology professions. Internships require faculty approval and a minimum of 45 hours of work per unit, including regular consultation with and evaluation by the faculty sponsor. Prerequisite: graduate standing and consent of instructor.

KIN 595 Special Studies (1-4)
Includes completion of a project to meet a highly specialized advanced study need. Project to be selected in conference with the faculty advisor and approved by the departmental Graduate Studies Committee. Prerequisites: consent of instructor and approval of departmental Graduate Studies Committee before the study is initiated.

KIN 599 Culminating Project (3)
KIN 599 Culminating Project is a scholarly investigation based on the students concentration area. Students will complete one of the following: project, thesis, scholarly article, clinical project or business/curriculum plan. Prerequisite: KIN 590 and an authorized Advancement to Candidacy form.

## Linguistics (LING)

## LING 400 Linguistic Analysis (4)

Introduction to phonological and grammatical analysis. Includes articulatory phonetics, methods and practice in the analysis of sound systems, with attention given to American English. Also includes grammatical analysis, methods and practice in the analysis of word and sentence structure, with emphasis on nonWestern European languages. Prerequisite: LING 200 or equivalent.

## LING 403 Meaning, Context and Reference (3)

 Introduction to the linguistic approach to the study of meaning, including the ways in which meaning is determined by language use. Includes issues of semantics and pragmatics. Prerequisite: LING 200 or consent of instructor.
## LiNG 430 Language Acquisition and Communicative

 Development (3)Investigation of the processes underlying the acquisition of language in childhood and beyond including both first and second languages. Examination of various perceptual, cognitive, and social skills that interact with communicative development. Consideration of key questions concerning the nature of stages in development, the role of innate linguistic knowledge, and the role of experience in language acquisition. Prerequisite: LING 200.

## Ling 432 Language in Sociopolitical Context (4)

Focus on such topics as language attitudes, political power and linguistic equality, language and sociopolitical institutions, and language planning. Practical introduction to the insights offered by discourse analysis to the study of language varieties reflected in particular geographical regions, and by members of particular social classes/groups. Prerequisite: LING 200 or consent of instructor. Cross-listed as ANTH 383.

## LING 490 Topics in Linguistics (4)

In-depth examination of a specific topic within Linguistics. Topics vary with each offering. May be repeated for credit with departmental approval.

## LING 495 Special Studies (1-4)

Students interested in Special Studies in linguistics must fill out a special studies application by the end of the first week of the semester. Prerequisite: LING 200 or an appropriate upper-division course in linguistics or another discipline; consent of supervising faculty member and approval of program coordinator.

## LING 498 Practicum for Teaching ESL (2)

This final course in the TESL Certificate Program is a practical experience in teaching English as a Second Language. With the guidance of the coordinator/ instructor, students will find placement in an ESL class. Students must complete approximately 90 hours of service with emphasis on actual classroom teaching, but the time commitment also includes lesson preparation, meetings and grading of papers. Students will be observed by the instructor (once or twice during the semester). There will also be three seminar meetings, times to be arranged.

## LING 499 Internship in Applied Linguistics (1-3)

Practical experience entailing 50-60 hours for the semester in teaching English as a second language or in the development of ESL materials. Prerequisite or corequisite: LING 441 or 442 . To be taken one time only.

## LING 595 Special Studies (1-3)

Students interested in Special Studies in linguistics must complete a special studies application by the end of the first week of the semester. Prerequisite: graduate standing and consent of instructor.

## Mathematics (MATH)

## MATH 035 Elementary Algebra (1)

Real numbers, linear equations and inequalities, quadratic equations, polynomial operations, radical and exponential expressions. Prerequisite: placement based on ELM examination taken within the past two years. Course credit is not applicable toward graduation.

## MATH 045 Intermediate Algebra (1)

Linear, quadratic, radical, rational, exponential, and logarithmic functions and their graphs. Conic sections. Prerequisite: MATH 35 or equivalent, or placement based on ELM examination taken within the past two years. Course credit is not applicable toward graduation.

## MATH 103 Ethnomathematics (3)

This course examines the mathematics of many indigenous cultures, especially those of North and South America, Africa, and Oceania. It will examine the use of mathematics in commerce, land measure and surveying, games, kinship, measurement of time, navigation, data storage, and other topics. The mathematics involved includes number bases, probability, geometry, number theory, lattice theory, and many other topics of interest in modern mathematics. This class is recommended for liberal arts students who are interested in studying other cultures. Satisfies GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

## MATH 104 Introduction to Modern Mathematics (3)

A class designed to explore the beauty and relevance of mathematics. Topics may include puzzles, paradoxes and logic; axiomatic systems; biographies; infinity of the counting numbers and higher infinities; historical crises and breakthroughs in mathematics; and uncertainty. This class is recommended for liberal arts students. Satisfies GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

## MATH 105 Mathematics and Politics (3)

This course will explore mathematical achievements in the theory of politics. Topics may include: escalation, conflict, yes-no voting, political power, and social choice. This course has an enormous cultural content, while at the same time dealing with important mathematical ideas. This class is especially suitable for social science students. Satisfies GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

## MATH 107 Precalculus Mathematics (4)

Covers a brief review of college algebra; functional notation, composition and decomposition of functions, inverse functions; behavior of families of functions such as polynomial, rational, exponential, and logarithmic; trigonometric functions, equations, and identifies; some mathematical modeling. Emphasis on problem solving. Satisfies the GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

## MATH 107W Precalculus Workshop (2)

A workshop designed to be taken with MATH 107. Exploration of precalculus concepts through problem solving in a group setting. Cr/NC only. Corequisite: MATH 107.

## MATH 111 Symmetry in the Arts and Sciences (3)

Exploration of the mathematical theory of symmetry in the plane and in space. The theory uses the idea that the set of rigid motions comprises an algebraic structure called a group, and that composing rigid motions correspond to performing an algebraic operation. The course emphasizes how the mathematical theory aids in understanding the causes and consequences of symmetry in natural and manmade objects. A central theme is the contribution of mathematics to other fields, such as architecture and decorative art; engineering of mechanical devices; music and dance; evolution and anatomy; crystallography; chemical bonding and atomic structure; philosophy; and mathematical proofs. Satisfies GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

## Math 131 Introduction to Finite Mathematics (3)

Designed to give students an understanding of finite mathematics applied in the modern world to social sciences, economic analysis, statistical analysis, and decision making. Topics include linear models, linear programming, financial mathematics, sets, combinatorics, probability, and statistics. Recommended for students with interests in the social sciences and management. Satisfies GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

## MATH 141 Studies in . . . (3)

Topics and approaches may vary. Please consult the current Schedule of Classes for details. Satisfies the GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

## MATH 142 Discrete Structures I (3)

A study of discrete structures that have applications in computer science. Topics may include logic, introduction to number theory, methods of proof, mathematical induction, set theory, relations, functions, directed graphs, Boolean algebras, and combinatorics. Prerequisites: MATH 107 or equivalent, or consent of instructor.

## MATH 142E Discrete Mathematics for Engineering (2)

The first portion of MATH 142: A study of discrete structures needed for electronics and communications engineering. Topics may include logic, proofs, mathematical induction, set theory, Boolean algebra, and combinatorics. Prerequisites: MATH 107 or equivalent, or consent of instructor.

## MATH 150 Modern Geometry (3)

A study of Euclidean geometry. It will cover topics such as compass and straightedge constructions, proofs, parallel and perpendicular lines, triangles, circles, polygons, measurement, solids, transformations, tessellations, and the use of geometry software. Satisfies the GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

## MATH 161 Differential and Integral Calculus I (4)

Calculus I includes limits, continuity, the concept of the derivative, differentiation rules and applications of the derivative, including curve sketching, extremum problems, L'Hopital's rule, implicit differentiation, related rates, Mean Value Theorem, introduction to integration, fundamental theorem of calculus, and substitution. Satisfies the GE requirement for mathematics, category B4. Prerequisite: MATH 107 or consent of instructor.

## MATH 161W Calculus I Workshop (2)

A workshop designed to be taken with MATH 161. Exploration of first-semester calculus concepts through problem solving in a group setting. $\mathrm{Cr} / \mathrm{NC}$ only. Corequisite: MATH 161.

## MATH 165 Elementary Applied Statistics (4)

This course is a technology-intensive introduction to elementary statistics. Topics include: elementary descriptive and inferential statistics and their application to the behavioral, natural, and social sciences, sampling, special distributions, central limit theorem, estimation, tests of hypothesis, analysis of variance, linear regression and correlation. Satisfies the GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

## MATH 175 Mathematics Colloquium (1)

A student taking this course will be required to attend all presentations in the $M^{*} A^{*} T^{*} H$ Colloquium series during the semester and, in addition, keep a journal. May be taken three times for credit. Cr/NC only. Prerequisite: consent of instructor.

## MATH 180 Computing for Mathematics and Science (2)

This course will utilize a software system, such as Mathematica, to implement numerical, symbolic, and graphical computations useful in mathematics and science. It will also introduce students to procedural programming in that system. Prerequisite: MATH 161 or consent of instructor.

## MATH 185 Selected Topics in Mathematics (1-5)

Subject matter to be determined by instructor and may differ from semester to semester. This course may be repeated with different subject matter for up to 12 units. The course title will appear on the student's transcript. Prerequisite: consent of instructor.

## MATH 195 Special Studies (1-4)

Special Studies may be arranged to cover an area of interest not covered in the lower division courses offered by the department. Prerequisites: A college-level math course and consent of instructor.

## MATH 200 Discrete Mathematics (3)

Designed for elementary and middle school teachers, this course is a study of discrete mathematics with emphasis on its use in other areas of mathematics and in real world problems. Topics include selections from logic, proof, coding and cryptography, set theory, sequences, mathematical induction, combinatorics, graphs, and others as selected by the instructor. Prerequisite: a GE Mathematics class or consent of the instructor.

## MATH 210 Introduction to Proof (1)

Introduction to propositional logic and methods of proof, including direct proof indirect proof, proof by "pick-a-point," and proof by mathematical induction. Students construct and analyze conjectures and counterexamples, and analyze and write proofs. Topics will include basic set theory, function theory, and equivalence relations, and may included examples from elementary number theory, algebra, and geometry. Does not count toward the mathematics major, but satisfies the MATH 220 prerequisite for certain upper-division mathematics courses. Cr/NC only. Prerequisite: GE math and consent of instructor.

## MATH 211 Differential and Integral Calculus II (4)

Calculus II includes the calculus of exponential and logarithmic functions, trigonometric and inverse trigonometric functions, numerical integration, techniques of integration, introduction to applications of integration including volumes and probability distributions, differential equations, Taylor polynomials, L'Hopital's rules, improper integrals, series, and introduction to partial derivatives. Prerequisite: MATH 161 or consent of instructor.

## MATH 211S Calculus II-S (2)

First half of MATH 211. Prerequisites: MATH 161 or consent of instructor. Open only to students enrolled in programs that require MATH 211 S .

## MATH 211SW Calculus II-S Workshop (1)

First half of MATH 211W. A workshop designed to be taken with MATH 211 S. Exploration of second-semester calculus concepts through problem solving in a group setting. Cr/NC only. Corequisite: MATH 211S.

## MATH 211W Calculus II Workshop (2)

A workshop designed to be taken with MATH 211. Exploration of second semester calculus concepts through problem solving in a group setting. Cr/NC only. Corequisite: MATH 211.

## MATH 220 Higher Mathematics: An Introduction (3)

This is a transitional course supplying background for students going from calculus to the more abstract upper-division mathematics courses. The principal aim of this course is to develop proficiency in reading and creating proofs. The following topics are included: elementary logic, methods of proof, set theory, relations and functions. Topics that may be covered include: algebras, homomorphisms, cardinality, Boolean algebra, the integers, limits and the real numbers. Transfer students are encouraged to take MATH 220 during their first semester here. Prerequisite: MATH 211 or equivalent, or consent of instructor.

## MATH 222 Elementary Applied Linear Algebra (3)

A course in vector and matrix algebra applied to science and computing. Topics include systems of linear equations, determinants, Euclidean and general vector spaces, eigenvalues and eigenvectors, linear transformations. Prerequisite: MATH 107 or consent of instructor.

MATH 241 Differential Equations with Linear Algebra (4) A course in vector and matrix algebra applied to the study of differential equations. Topics include vectors and matrices, linear independence, spanning, bases, linear transformations, first order differential equations and linear systems, phase planes, geometric and numerical methods. Prerequisite: MATH 211 or equivalent, or consent of instructor.

## MATH 250 Probability and Statistics (3)

A study of elementary probability and statistics and their uses in real-world contexts. Topics include the binomial distribution, conditional probability, expected value, data collection and sampling, measures of location and variability, correlation and regression, estimation, and simple hypothesis testing. This course is designed for teachers and may not be substituted for MATH 165. Prerequisite: Any GE-level math course or consent of instructor.

MATH 261 Multivariable Calculus (4)
Multivariable calculus includes partial derivatives, multiple integrals, alternative coordinate systems, vector functions and their derivatives, line integrals, Green's Theorem, Stokes' Theorem, and Divergence Theorem. Prerequisite: MATH 241 or equivalent, or both PHYS 114 and MATH 211, or consent of instructor.

## MATH 265 Intermediate Applied Statistics with SPSS (4)

This course is a technology-intensive examination of the application of statistical techniques to the real world using SPSS. The course extends the concepts learned in an elementary statistic course and introduces new topics; it is suitable for students with an interest in applying statistics to their field of interest. Topics selected from: theory of estimation, ANOVA (analysis of variance), multiple regression, principles of experimental design, sampling theory, time series analysis, non-parametric statistics, and multivariate analysis. Prerequisite: MATH 165 or MATH 250 or instructor consent.

## MATH 295 Community Involvement Program (1-4)

CIP involves students in basic community problems, performing such tasks as tutoring, coaching, and reading for the blind. Students receive 1 to 4 units, depending on the specific tasks performed. No more than 3 units of credit in CIP may be applied toward any mathematics degree. May be repeated for credit up to 6 units total. Cr/NC only.

## MATH 300A Elementary Number Systems (3)

This course, designed for prospective elementary and middle school teachers, explores numerical ideas underlying the K-8 mathematics curriculum. The emphasis is on understanding the mathematical ideas and procedures, and on representing them in ways that children can understand. Alternative ways of representing and solving problems are encouraged. Problem solving and logical thinking are emphasized throughout. Prerequisite: MATH 150 or other GE math course.

## MATH 300B Data, Chance and Algebra (3)

This course is designed for prospective elementary and middle school teachers. The focus in algebra is on patterns and functions, algebraic structure, representations and connections, and reasoning and problem solving. The focus in data and chance is on developing solid understanding of fundamental concepts and skills in statistics and probability, and on enhancing students' understanding and skills in number and computation proportional reasoning, and algebra. Prerequisite: MATH 300A.

## MATH 303 Interest Theory (3)

Basic interest theory, including patterns of growth, interest operations, basic applications, level payment annuities, non level payment annuities, yield rates, amortization and sinking funds, and bonds. Prerequisite: MATH 161 or equivalent or consent of instructor.

MATH 306 Number Theory (3)
Topics may include mathematical induction, Euclidean algorithm, congruences, fundamental theorem of arithmetic, perfect numbers, number theoretic functions, prime number theorem. Prerequiste: MATH 220 or MATH 142 or MATH 200 or CS 242. This prerequisite is primarily intended to ensure that students are capable of reading and writing proofs.

## MATH 308 College Geometry (3)

Topics may include the Hilbert postulates, isometries in the Euclidean plane, nonEuclidean geometries, construction of geometries from fields. Prerequiste: MATH 220 or MATH 142 or MATH 200 or CS 242 . This prerequisite is primarily intended to ensure that students are capable of reading and writing proofs.

MATH 310 History of Mathematics (3)
Mathematics from ancient times to the present. The student learns how to solve problems of the past using only the tools of the past. Prerequisite: MATH 161 or consent of instructor.

## MATH 316 Graph Theory and Combinatorics (3)

Set theory, counting techniques such as permutations, combinations, generating functions, partitions and recurrence relations, Polya's theorem, Hamiltonian and Eulerian properties of graphs, matchings, trees, coloring problems and planarity. Applications in many disciplines. Students may not earn credit for both MATH 316 and MATH 416. Prerequiste: MATH 220 or MATH 142 or MATH 200 or CS 242.
This prerequisite is primarily intended to ensure that students are capable of reading and writing proofs.

## MATH 320 Modern Algebra I (4)

An introduction to the theory of groups, rings, and fields. Topics covered include permutation and cyclic groups, factor groups, ideals and factor rings, and isomorphism and homomorphism theory of groups and rings. Prerequisite: MATH 220 or consent of instructor.

## MATH 322 Linear Algebra (3)

Topics include applications using linear models, vector spaces, linear transformations, matrices, linear equations, determinants, and the Cayley-Hamilton theorem. Prerequiste: MATH 220 and either MATH 222 or 241 or consent of instructor.

## MATH 330 Techniques of Problem Solving (2)

Cultivates by experience and example the mental disciplines for generating creative solutions to challenging problems. The problems to be considered will be taken largely from recent examinations in the William Lowell Putnam Mathematical Competition, sponsored by the Mathematical Association of America. No more than 4 units of credit in this course may be applied toward any mathematics degree. May be taken four times for credit. Cr/NC only. Prerequisite: MATH 161 or consent of instructor.

## MATH 331 Differential Equations II (3)

Topics may include Picard's method and a discussion of the existence and uniqueness of solutions; General properties of solutions, including the Sturm separation theorem for second-order linear equations; Power series solutions for a regular singular point; Laplace transform; Linear systems of differential equations; Nonlinear differential equations and stability. Prerequisite: Math 241 or consent of instructor.

## MATH 340 Real Analysis I (4)

Topics may include construction of the real numbers, sequences, topology of the real numbers, metric spaces, continuity, the derivative, and the Riemann integral. Prerequisites: MATH 220 and MATH 261, or consent of instructor.

## MATH 342 Discrete Structures II (3)

A study of discrete structures that have applications in computer science. Topics will include combinatorics and counting, probability and statistics, matrices, recurrence relations, generating functions, and graph theory. Throughout the course, applications to computer science will be discussed. Prerequisite: consent of instructor, or MATH 211 and one of the following: MATH 142, MATH 200, or MATH 220.

## MATH 345 Probability Theory (4)

Topics include probability spaces, discrete and continuous random variables, selected probability distributions for random phenomena, distributions of functions of random variables, moment generating functions, expected value, covariance and correlation, conditional expectation, law of large numbers and central limit theorem, sampling distribution of estimators. Prerequisite: MATH 261 or consent of instructor.

## MATH 352 Numerical Analysis (3)

Selected numerical and iterative processes for solving equations. Topics include computer methods, finite differences, Lagrange interpolations, introduction to the finite element method, and the theory of spline functions. Prerequisites: MATH 241 (may take concurrently) and MATH 180 or CS 115 or competence in a high-level programming language, or consent of instructor.

## MATH 360 Introduction to Complex Variables (3)

Topics will include the complex field, functions, limits, continuity, complex differentiation and the Cauchy-Riemann equations, complex integration, residues, conformal mappings. Prerequisites: MATH 261 (may be concurrent) and MATH 220. MATH 340 is strongly recommended.

## MATH 367 Statistical Consulting and Communication (2)

This course is a blending of theoretical and practical aspects of statistical consulting. Students learn how to consult with professionals in various fields, find creative statistical solutions to real-world problems and present results in oral and written form. Students also learn about research and statistical software packages. Prerequisite: MATH 265 or consent of instructor.

## MATH 375 M*A*T*H Colloquium (1)

Students will be required to attend presentations, keep a journal, and write a significant paper on one of the presentations. May be taken three times for credit. No more than 3 units may be applied to the upper-division major or minor requirement. May not be taken concurrently with MATH 175. Prerequisites: consent of instructor and upper-division standing.

## MATH 381 Computing for Statistics: SAS Programming Lan-

 guage (2)Students will learn how to write SAS programs in order to perform data management tasks, statistical analysis, and to generate summary graphs and SAS reports. Topics include essential programming concepts - the environment and steps; typical data processing tasks; data management techniques - working with SAS libraries and different types of data, data set input and output, validation, merging, and subsets; statistical analyses - descriptive statistics, histograms and bar charts,k analysis of variance, regression analysis; and generation of SAS reports. Prerequisite: MATH 265 or concurrent enrollment; or consent of instructor.

## MATH 390 Fieldwork and Seminar: Secondary Mathematics Teaching (2)

Forty-five hours of observation in middle school, junior high, and/or high school mathematics classrooms, plus a weekly seminar. Students begin to view school mathematics from the vantage point of a teacher. Intended primarily for mathematics majors in the secondary teaching track or students considering a career in this field. This course satisfies the 45 hours of field observation required for acceptance into SSU's Single Subject Credential Program, and initiates the development of the Mathematics Portfolio required for mathematics majors in the secondary teaching track. Cr/NC only. Prerequisite: MATH 161 or consent of instructor.

## MATH 395 Community Involvement Program (1-4)

CIP involves students in the community performing such tasks as tutoring, coaching, and reading for the blind. Students receive 1 to 4 units, depending on the specific tasks performed. No more than 3 units of credit in CIP may be applied toward any mathematics degree. May be repeated for a total of 6 units. Cr/NC only.

## MATH 399 Practicum in Mathematics (1-4)

Supervised unpaid instructional work experience in Mathematics. May include tutoring, assisting with classroom activities, and leading supplementary course workshops. Thirty hours of contact time is required for each unit. Does not count for credit in the major or the minor, except for one unit in the Integrated Program. May be repeated for up to 4 units of credit. Prerequisite: requires previous or concurrent enrollment in an upper division mathematics course and consent of instructor. Cr/NC only.

## MATH 416 Graph Theory and Combinatorics (3)

Set theory, counting techniques such as permutations, combinations, generating functions, partitions and recurrence relations, Polya's theorem, Hamiltonian and Eulerian properties of graphs, matchings, trees, coloring problems and planarity. Applications in many disciplines. MATH 416 covers the same topics as MATH 316. Students taking MATH 416 will work advanced problems from these topics and do a special research project which requires a significant paper and an oral presentation. Students may not earn credit for both MATH 316 and MATH 416. Prerequisite: MATH 142 or MATH 200 or MATH 220 or consent of instructor.

## MATH 418 General Topology (3)

Topics include definition of a topology, closed sets, relativizations, base and subbases of a topology, compact topological spaces, separation axioms, normal spaces, regular spaces, metric spaces, continuous mappings, product spaces, function spaces. Prerequisite: MATH 340 or consent of instructor.

## MATH 420 Modern Algebra II (3)

A continuation of MATH 320. Advanced topics in the theory of groups, rings, and fields. Coverage may include topics such as the direct product of groups, finite Abelian groups, Sylow Theorems, unique factorization domains, field extensions, and Galois Theory.

## MATH 430 Linear Systems Theory (3)

Topics may include correlation, convolution, Fourier, Laplace and z-transform, difference equations, fast Fourier transforms and state variable theory. Prerequisite: one semester of differential equations (such as MATH 241) or consent of instructor. (Crosslisted with ES 400 and CES 400).

## MATH 431 Partial Differential Equations and Integral Transforms (3)

A course in partial differential equations (PDEs). Topics include mathematical models in physics, theory and solution of quasi-linear first-order PDEs, second-order linear and nonlinear PDEs including applications, Fourier series, boundary-value problems, Fourier and Laplace transforms, Numerical methods and solutions. Prerequisite: MATH 241 or consent of instructor.

## MATH 440 Real Analysis II (3)

A continuation of MATH 340. Topics include sequences and series of functions, Taylor series, Weierstrass approximation theorem, Fourier series and the Lebesgue integral. Prerequisite: MATH 340 or consent of instructor.

## MATH 441 Operations Research (3)

A course in operations research and industrial problem solving. Topics may include optimization, simplex algorithm for linear programming, queueing theory, game theory, PERT least time path analysis, mathematical modeling of industrial problems. Prerequisites: MATH 345 and either MATH 241 or MATH 222, or consent of instructor.

## MATH 445 Mathematical Statistics and Operations Research (4)

Topics include: properties of statistics, convergence in probability, theory of estimation and confidence intervals, Bayesian statistics, tests of significance, power and uniformly most powerful tests, random processes (with emphasis on queuing theory) and stationarity. Prerequisite: MATH 345 or consent of instructor.

## Math 465 Experimental Design and Regression Analysis (4)

Advanced course in simple and multiple linear regression analysis; nonlinear and nonparametric regression analysis. Design of experiments and analysis of variance including one-way, two way and block design; nonparametric techniques and multiple comparison methods. Prerequisite: MATH 265 and MATH 241 or a course in linear algebra or consent of instructor.

## mATH 467 Statistical Consulting, Communication and Project Management (2)

This course is a blending of theoretical and practical aspects of statistical consulting. Students learn how to consult with professionals in various fields, find creative statistical solutions to real-world problems and present results in oral and written form. Students also learn about research and statistical software packages. MATH 467 covers the same topics as MATH 367. In addition, students taking MATH 467 will also learn how to oversee a statistical project completed by a team. Prerequisite: MATH 367 or consent of instructor.

## MATH 470 Mathematical Models (3)

The process of expressing scientific principles, experiments, and conjectures in mathematical terms. Topics include: gathering reliable data, exposing underlying assumptions, variables, relationships, levels, refining of models, and stochastic models. Deterministic vs. stochastic models. Applications to biology, physics, chemistry, geology, social science and environmental sciences. Prerequisite: MATH 211 or consent of instructor.

## MATH 485 Selected Topics in . . . (1-3)

Subject matter and number of units to be determined by the instructor and may differ from semester to semester. Some of the possible areas of study are multivariable analysis, calculus of variations, convex geometry, differentiable manifolds, graph theory, Galois theory, algebraic topology, integral equations. This course may be repeated for up to 6 units. The course title will appear on the student's transcript. Prerequisite: consent of instructor.

## MATH 490 Capstone Seminar: Secondary Mathematics Teaching (1)

Seminar focusing on connections among undergraduate coursework, secondary school curriculum, and learning and teaching mathematics. Students present their completed Mathematics Subject Matter Program portfolios for final evaluation. Students draw upon their portfolios, experiences, and readings in mathematics education to present information and engage fellow students in discussion of relevant issues. Prerequisites: Senior standing or consent of instructor.

## MATH 495 Special Studies (1-4)

Prerequisites: a lower-division math course and consent of instructor.

## MATH 496 Proseminar in Mathematics (1-3)

A mutual exploration of selected current issues in mathematics by members of the mathematics faculty and mathematics majors. Non-majors may enroll by permission of the instructors. Prerequisite: upper-division standing.

## MATH 499 Internship in Mathematics (1-3)

Field experience in mathematics, computer science, or statistics. May be repeated for credit up to 3 units total. Cr/NC only. Prerequisite: prior arrangement with instructor.

## MATH 595 Special Studies in Mathematics (1-4)

Subject matter and number of units to be determined by instructor and may differ from semester to semester. This course may be repeated with different subject matter for up to 12 units. The course title will appear on the student's transcript. Prerequisite: consent of instructor.

## Music (MUS)

MUS 101 Introduction to Music (3)
What does music mean? Why does music matter? These questions will shape the development of listening tools and cultural perspectives appropriate to the diverse and changing roles music plays in different times and places. No prior background in music is required. Satisfies GE, category C4 (Comparative Perspectives).

## MUS 105 Music Theory for Non Majors (3)

Through writing and analysis, this course incorporates the following concepts: rhythm and meter; basic properties of sound; intervals; diatonic scales and triads; diatonic chord progressions, basic cadential formulas, melodic and phrase structure; dominant seventh; Use of music notation software. Not open to Music Majors. Satisfies GE, category C1 (Applied Arts Combining Studio and Theory).

## MUS 106 Fundamentals of Music Theory (3)

Intensive practice in developing skill and fluency reading music notation. Aural and written practice recognizing, writing and using intervals, scales and key signatures. Beginning sight singing and dictation using simple pitch and rhythmic materials. Should be taken concurrently with MUS 109. Restricted to music majors; open to non-majors only with consent of instructor.

## MUS 109 Intensive Keyboard Lab I (2)

A course designed for prospective music majors who fail to meet the keyboard competencies required for entry into the program. Those students who also lack knowledge of theory fundamentals should take MUS 105 with this course. Prerequisite: prospective major status and recommendation of a music advisor.

## MUS 110 Theory I: Diatonicism (3)

This course incorporates the concepts from MUS 105. In addition, through writing and analysis, the course will include: introduction to sequence; secondary dominants; modulation to closely related keys; secondary leading tones; Diminished seventh and non-dominant 7th chords, borrowed chords will be addressed. Figured bass; non-harmonic tones; melodic and phrase structure; and voice leading involving 4 part choral writing. Use of music notation software. A concurrent laboratory experience in ear training and sight-singing including melodic, harmonic, and rhythmic dictation is required. See Ear Training I. Prerequisite: MUS 105 or 106, or consent of instructor.

## MUS 115 Vocal Methods (1)

Group work in the fundamental techniques of singing. Problems of tone production, breath control, diction, repertory, and interpretation. Offered for upper-division credit as MUS 415 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

## MUS 118 Guitar Methods (1)

Basic performing techniques on guitar. Offered for upper-division credit as MUS 418 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

## MUS 120 Ear Training I (2)

Development of sightsinging and dictation skills using pentatonic and diatonic materials. Techniques include moveable-do solfa, takadimi rhythmic system, and drills in intervals, triads and dictation, facilitated by computer software and partner work. Also emphasizes development of broad listening skills, using examples of great works based upon simple diatonic melodies. Prerequisite: MUS 105 or equivalent.

## MUS 122 String Methods (1)

Basic performing techniques on orchestral string instruments. Offered for upperdivision credit as MUS 422 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

## MUS 123 Woodwind Methods (1)

Basic performing techniques on band and orchestral woodwind instruments. Offered for upper-division credit as MUS 423 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

## MUS 124 Brass Methods (1)

Basic performing techniques on band and orchestral brass instruments. Offered for upper-division credit as MUS 424 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

## MUS 129 Percussion Methods (1)

Basic performing techniques on standard percussion instruments. Offered for upper-division credit as MUS 429 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

## MUS 133 Private Instruction-Strings (1)

Private instruction on one instrument. May be repeated for credit. Prerequisite: audition.

## MUS 134 Private Instruction-Woodwinds (1)

Private instruction on one instrument. May be repeated for credit. Prerequisite: audition.

## MUS 137 Private Instruction-Brass (1)

Private instruction on one instrument. May be repeated for credit. Prerequisite: audition.

MUS 138 Private Instruction-Percussion (1)
Private instruction on percussion instruments. May be repeated for credit. Prerequisite: audition.

MUS 139 Private Instruction-Keyboard (1)
Private instruction on one keyboard instrument. May be repeated for credit. Prerequisite: audition.

## MUS 141 Private Instruction-Voice (1)

Private voice instruction. May be repeated for credit. Prerequisite: audition.
MUS 143 Private Instruction-Guitar (1)
Private guitar instruction. May be repeated for credit. Prerequisite: audition.
MUS 147 Applied Music Studies (1)
Advanced individual study of instrument or voice. Instructor permission required. May be repeated for credit.

## MUS 150 Survey of U.S. Music (3)

An introductory course with lectures and demonstrations dealing with the broad range of music in the United States from the Colonial period to the present. Satisfies GE, category C1 (History of the Fine Arts).

## MUS 151 Repertory Class-Private Instruction (1)

This class provides an opportunity for students to perform their repertory in a group setting. Private instruction faculty coach students in technique, interpretation, and presentation. Classes are normally offered for voice and classical instrumental. Also offered for upper-division credit as MUS 451. May be repeated for credit. Prerequisite: concurrent enrollment in appropriate private instruction course.

## MUS 159 Audio and Recording Production I (1)

Fundamentals of audio and recording production in a studio and of live performances. Discussion and demonstrations of major types of software and/or hardware used in the production of music including creative and innovative methods. Students will develop skills in all phases of studio and live performance operation and will complete a number of individual projects.

## MUS 189 Jazz Improvisation I (1-2)

Exploration of the techniques of melodic composition and improvisation based on the scales and chords used in jazz. Maybe repeated for credit. Prerequisite: MUS 105 and consent of instructor.

## MUS 199 Student Instructed Course (1-3)

Topic will differ each semester. Cr/NC only.

## MUS 201 Music in Action (3)

Experience great classical, jazz and world music performances created by today's musicians. Students are engaged as audiences for on-campus, videotaped and recorded performances of renowned and important performers and composers and for Music Department productions. Post-performance small group discussions and on-line chats ask students to further engage by reflecting upon their shared experiences. Attendance is required at several on-campus free admission performances. Satisfies GE, category C4.

## MUS 209 Intensive Keyboard Lab II (2)

A continuation of work begun in MUS 109. Prerequisite: MUS 109.

## MUS 210 Theory II: Chromaticism (3)

This course incorporates the concepts from Music Theory II. IN addition, through writing and analysis, the course will include: Neapolitan and augmented sixth chords, chromatic harmony, altered chords and dominants, mixture chords; modulation to distantly related keys, and 9th, 11th and 13th chords, melodic, phrase and theme structure, voice leading involving 4 part choral writing. Use of music notation software. A concurrent laboratory experience in ear training and sight-singing including melodic, harmonic, and rhythmic dictation is required. See Ear Training II. Prerequisite: MUS 110 or consent of instructor.

## MUS 210 Theory II: Chromaticism (3)

This course incorporates the concepts from Music Theory II. IN addition, through writing and analysis, the course will include: Neapolitan and augmented sixth chords, chromatic harmony, altered chords and dominants, mixture chords; modulation to distantly related keys, and 9th, 11th and 13th chords, melodic, phrase and theme structure, voice leading involving 4 part choral writing. Use of music notation software. A concurrent laboratory experience in ear training and sight-singing including melodic, harmonic, and rhythmic dictation is required. See Ear Training II. Prerequisite: MUS 110 or consent of instructor.

## MUS 212 Jazz Harmony and Arranging I (3)

Study of basic melodic and harmonic materials commonly used in jazz. Application through arranging projects for small jazz groups. Prerequisite: MUS 110 or consent of instructor.

## MUS 212 Jazz Harmony and Arranging I (3)

Study of basic melodic and harmonic materials commonly used in jazz. Application through arranging projects for small jazz groups. Prerequisite: MUS 110 or consent of instructor.

## MUS 220 Ear Training II (2)

Continuation of Ear Training I. Sightsinging progresses to two-,three- and four-part music, incorporating the most common chromatic tones. Dictation focuses upon triad inversions, continuing development of melodic and rhythmic dictation skills, and the introduction of polyphonic dictation. Listening skills are pursued using great works which emphasize contrapuntal techniques. Prerequisite: MUS 120 or equivalent.

## MUS 220 Ear Training II (2)

Continuation of Ear Training I. Sightsinging progresses to two-,three- and four-part music, incorporating the most common chromatic tones. Dictation focuses upon triad inversions, continuing development of melodic and rhythmic dictation skills, and the introduction of polyphonic dictation. Listening skills are pursued using great works which emphasize contrapuntal techniques. Prerequisite: MUS 120 or equivalent.

## MUS 250 Survey of European Music (3)

An introductory course with lectures and demonstrations dealing with classical European music from the Middle Ages to contemporary music. Satisfies GE, category C1 (History of the Fine Arts).

## MUS 251 History of Western Music - Ancient World to 1750 (3)

History of Western Music from the Ancient World to 1750. The course embodies the study of the evolution of musical genres, from the earliest plainchant of the Medieval church to the intricate polyphony of the High Baroque including the music of Bach and Handel. Listening and analytical study of specific compositions requires the student to have a working knowledge of musical notation and theory. Prerequisites: MUS 110, or by consent of the instructor.

## MUS 252 History of Western Music 1750-present (3)

History of music in the Western tradition, dating from 1750 to the present. The course embodies the study of representative composers including Mozart, Beethoven, Brahms and Stravinsky, as well as analytical studies of specific works dating from this time period. This course is offered to both Majors and non-Majors with a working knowledge of musical notation and theory. Prerequisites: MUS 210, or by consent of instructor.

## MUS 259 Music Technology: Tools and Applications (2-3)

 A hands-on survey of hardware and software resources for music notation, midi sequencing, digital recording and synthesizer operation. The focus will be on building basic skills for using these tools in real-world situations. Required for Music Education students; open only to music majors.
## MUS 289 Jazz Improvisation II (3)

Basic voiceleading techniques for improvising on common functional chord progressions: blues, "Rhythm" changes and various "standards". Prerequisite: MUS 110 and MUS 189; or consent of instructor.

## MUS 289 Jazz Improvisation II (3)

Basic voiceleading techniques for improvising on common functional chord progressions: blues, "Rhythm" changes and various "standards". Prerequisite: MUS 110 and MUS 189; or consent of instructor.

## MUS 292 Jazz Piano I (1)

An introduction to jazz improvisation at the keyboard. Emphasis is placed on developing skill in reading lead sheets, in chord substitution and voicing at the keyboard, and in creating an improvised "piano trio" texture. Prerequisite: MUS 209 or consent of instructor.

## MUS 295 Community Involvement Program (1-4)

CIP involves students in basic community problems, performing such tasks as tutoring, coaching, and performing for hospitals and schools. Students taking CIP through the Music Department must arrange for supervision by a Music Department advisor. Students in the music education concentration must see their advisor about special requirements. Cr/NC only.

## MUS 300 Seminar (3)

An intensive study, for music majors, of the history, theory or research methodology of a specific topic in music. May be repeated for credit under different subtitles. Prerequisites: 9 units of theory and concurrent enrollment in MUS 320, or consent of instructor.

## MUS 301 Music and Technology:Then and Now (3)

How does technology affect musical composition, performance and listening? An exploration of the effects of musical notation, music printing, acoustic musical instruments, self-playing musical instruments, recording, electronic instruments and digital resources on past and present music making. No prior background in music is required. Satisfies GE, Category C1 (History of the Fine Arts).

## MUS 309A Keyboard Proficiency Lab (1)

The study of functional keyboard; figured bass, harmonization, transposition and sightreading. Prerequisite: Placement test. Students who lack sufficient keyboard fluency may take pre-major Intensive Keyboard Labs (MUS 109 and 209) to meet the required competency.

## MUS 309B Keyboard Proficiency Lab (1)

The study of functional keyboard; figured bass, harmonization, transposition and sightreading. Prerequisite: Placement test. Students who lack sufficient keyboard fluency may take pre-major Intensive Keyboard Labs (MUS 109 and 209) to meet the required competency.

## MUS 310 Theory III: Form and Analysis (3)

This course incorporates the concepts from Music Theory I and II. In addition, through analysis from the macro to the micro large-scale form, orchestration, motive identification and tracking, detailed harmonic progression (sonorities, functions and modulation types) are studied. Variation techniques, binary and ternary forms, sonata forms, contrapuntal forms are including in the study of such composers as Bach, Mozart, Beethoven and Mahler. Use of music notation software. A concurrent laboratory experience in ear training and sight-singing including melodic, harmonic, and rhythmic dictation is required. See Ear Training III.

## MUS 312 Jazz Harmony and Arranging II (3)

A continuation of MUS 212. Study of advanced melodic and harmonic materials commonly used in jazz. Application through arranging projects for small (saxophone ensemble) and large (big band) jazz groups. Prerequisite: MUS 212.

## MUS 312 Jazz Harmony and Arranging II (3)

A continuation of MUS 212. Study of advanced melodic and harmonic materials commonly used in jazz. Application through arranging projects for small (saxophone ensemble) and large (big band) jazz groups. Prerequisite: MUS 212.

## MUS 314 Orchestration (2)

Techniques of instrumentation and choral arranging. Prerequisites: MUS 323, 324 or 325 , and 210 or 212 or 317 ; performance experience on strings, woodwind, brass, and percussion instruments (recommended); and consent of instructor.

## MUS 315 Diction - English/Italian (1-2)

This hands-on course complements vocal instruction and theatre arts classes through diction training. Students will learn to use the "International Phonetic Alphabet" to help them analyze and transliterate English for the stage, Italian and Latin songs and arias.

## MUS 316 Diction - French and German (1-2)

A continuation of MUS 315. Students will learn to use the "International Phonetic Alphabet" to help them analyze and transliterate foreign texts in French and German.

## MUS 317 Small Jazz Band Arranging (3)

Arranging for two, three and four parts in a jazz style is explored. Instrumental and vocal orchestration is studied. Prerequisites: MUS 112 and 212.

## MUS 320 Ear-Training III (2)

Continuation of Ear Training II. Focuses upon the music of Bach. Bachis chorales form the core of sightsinging and dictation exercises, supplemented by excerpts from cantatas and other works. The full chromatic gamut is introduced, and more advanced harmonic and rhythmic patterns. Listening and analysis activities focus upon a diverse selection of Bach's works. Prerequisite: MUS 220 or equivalent.

## MUS 320 Ear-Training III (2)

Continuation of Ear Training II. Focuses upon the music of Bach. Bachís chorales form the core of sightsinging and dictation exercises, supplemented by excerpts from cantatas and other works. The full chromatic gamut is introduced, and more advanced harmonic and rhythmic patterns. Listening and analysis activities focus upon a diverse selection of Bachs works. Prerequisite: MUS 220 or equivalent.

## MUS 321 Aural Skills Practicum (1)

Focus varies each semester. Will stress the development of such practical skills as sight-singing, dictation, oral tradition, transcription, repertory building, scorereading, rhythm training, and sight-reading of various periods, cultures, and styles. May be repeated for credit. See each Concentration for number of semesters required.

## MUS 323 Chamber Singers (1-2)

Small vocal ensemble. Repertoire may include madrigals, motets, masses and partsongs from the Medieval, Renaissance, Baroque and 20th century periods. Emphasis is placed on the development of comprehensive musicianship, interpretive skills, and ensemble sensitivity. Frequent public performances. Admission by audition. May be repeated for credit.

## MUS 324 Sonoma County Bach Choir (1-2)

Medium-sized vocal ensemble specializing in rehearsal and performance of music from the Renaissance, Baroque, Classical and 20th-century periods. Repertoire features major choral/orchestral works by Schutz, Bach, Mozart, and others, performed with historical instrumentation and performance practices. Frequent public performances. Admission by audition.

## MUS 325 SSU Chorus (1-2)

Large chorus featuring a wide range of accompanied and a cappella literature. Emphasis placed on development of vocal technique and musicianship skills, and on preparation of repertoire. Includes public performances. No previous choral experience required; singers will be given a simple screening after enrolling. May be repeated for credit.

## MUS 326 Guitar Ensemble (1-2)

The course focuses on all aspects of the literature for multiple guitars~performance, listening, sightreading and technique. A wide variety of repertory is covered and a public performance is required. Project proposals from class members are welcomed. Prerequisite: consent of instructor.

## MUS 327 Symphonic Wind Ensemble (1-2)

Woodwind, brass and percussion ensemble of 60+ music majors, qualified nonmajors and community members. Focus is on the performance of serious wind band literature, including the best of the traditional band repertoire. Four annual concerts includes some touring. Placement by audition. May be repeated for credit.

## MUS 328 String Orchestra (1-2)

This string-based ensemble will explore concert and opera literature from several periods, and eventually will include woodwinds, brass and percussion players. This course is open to students, faculty and staff. May be repeated for credit.

## MUS 329 Chamber Music Ensembles (1-2)

Enrolled students will be assigned to various ensembles according to instrumentation and expertise. During each semester outstanding musicians from the San Francisco Symphony and the San Francisco Opera Orchestra will coach each ensemble on a periodic basis. Course culminates in a series of public performances. Admission by audition. May be repeated for credit.

## MUS 330 Musical Theatre Production (1-3)

A course devoted to the study and performance of operatic and musical theatre literature. Designed for singers, actors and others interested in Music Theatre. Maybe repeated for credit. Prerequisite: By audition.

## MUS 340 Musical Theatre Scenes Workshop (1-3)

A performance course designed to broaden student's familiarity with the opera and musical theatre repertoire. Students have input regarding literature and scenes. The class is open to all students. May be repeated for credit.

## MUS 342 History of Jazz (1-3)

The study of jazz from its origins to the present. Listening to music is the core of the class; emphasis is on developing skill in recognizing and describing what happens in classic performances. The changing styles of jazz are related to the social and cultural context of the music in each style period.

## MUS 343 Studies in Musical Genres (1-3)

An in-depth study of a particular type of music. Course activities will include lecture, listening and in-class performances. Prerequisite: MUS 101, MUS 201 or consent of instructor. Satisfies GE category C1.

## MUS 344 Studies-Specific Composers (1-3)

An in-depth study of the life and works of a single composer. Course activities will include lecture, listening and in-class performances. Prerequisite: MUS 101, 201 or consent of instructor. Satisfies GE category C1.

MUS 346 Studies in Music Theory (1-3)
The detailed study of a particular theoretical system in music. May be repeated for credit with consent of the instructor.

## MUS 347 Studies in World Music (1-3)

The detailed study of the music of a particular country or area outside the Western European musical tradition. May be repeated for credit.

## MUS 350 Survey of World Music (3)

This class examines the world's musical cultures with an emphasis on musical repertoires and how they relate to social, cultural and religious contexts. Students are encouraged to show their musical talents and participate in learning a few melodies and rhythm. Satisfies GE, category C4 (Comparative Perspectives).

## MUS 353 Indian Singing Ensemble (1-2)

Experience the joy of Indian singing as we explore the philosophical and spiritual concept of Nada Brahma (the universe is sound; music being eternal bliss). No requirements; bring your throat.

## MUS 359 Audio and Recording Production II (1)

A continuation of Audio and Recording Production I. Prerequisite: MUS 159or by consent of instructor.

## MUS 370 Music and Dance in the World’s Religions (3)

A survey of music and dance in the world's major religions as well as in the traditional religions of Africa, Asia and the Native Americans. Satisfies GE, category C4 (Comparative Perspectives).

## MUS 376 Chamber Wind Ensemble (1-2)

While the core instrumentation of the group is the traditional wind octet or harmoniemusik, the ensemble maintains a flexible instrumentation to accommodate a diverse and exciting repertoire. Original repertoire from composers such as Gabrieli, Strauss, Dvorak and Stravinsky form the core repertoire of this group comprised of select members from the Symphonic Wind Ensemble.

## MUS 377 Brass Ensemble (1)

This ensemble is a vibrant group of interested trumpet, horn, baritone, trombone and tuba players who perform a wide array of pieces from Gabrieli antiphonal music to jazz works as well as music in the Philip Nones brass repertory. The group meets weekly and plays concerts on and off campus.

## MUS 378 Percussion Ensemble (1)

An outgrowth of the Symphonic Wind Ensemble, the Percussion Ensemble performs a mixture of historically relevant repertoire as well as pieces of the modern repertory. The ensemble affords its members the chance to cultivate sensitive chamber music skills and to explore performance techniques on all the various percussion instruments.

## MUS 379 Contemporary Jazz Ensemble (1-2)

Rehearsal and performance of literature from post-bebop through fusion, with different ethnic music, classical music, rock, and free improvisation. May be repeated for credit. A Latin music ensemble is also offered some semesters. Prerequisite: consent of instructor.

## MUS 389 Jazz Improvisation III (3)

A continuation of MUS 289. Advanced chord-scale and chord substitution techniques for improvising on functional chord progressions. Prerequisite: MUS 289.

## MUS 389 Jazz Improvisation III (3)

A continuation of MUS 289. Advanced chord-scale and chord substitution techniques for improvising on functional chord progressions. Prerequisite: MUS 289.

## MUS 390 Jazz Orchestra (1-2)

The Big Band performs the best literature for the medium from the traditional swing era to modern big band arrangers. May be repeated for credit.

## MUS 391 Concert Jazz Ensemble (1-2)

Rehearsal and performance of literature in traditional and contemporary jazz idioms. Repertory includes original arrangements especially designed for the ensemble by music faculty and students. May be repeated for credit. Prerequisite: consent of instructor.

## MUS 392 Jazz Piano II (1)

Continuation of MUS 292. Prerequisite: MUS 292 or consent of instructor.

## MUS 395 Community Involvement Program (1-4)

CIP involves students in basic community problems, performing such tasks as tutoring, coaching, and performing for hospitals and schools. Students taking CIP through the Music Department must arrange for supervision by a Music Department advisor. Students in the music education concentration must see their advisor about special requirements. Cr/NC only.

## MUS 399 Student Instructed Course (1-3)

Topic differs each semester. Cr/NC only.

## MUS 400 Music for the Classroom (2)

Philosophy, concepts, and materials for music teaching in the classroom. The structure, nature, and function of music in children's lives. Prerequisite: MUS 105 or equivalent or consent of instructor.

## mus 401 Conducting Technique (2)

An introduction to the basics of conducting with emphasis on baton technique and development of effective conducting and rehearsal techniques common to instrumental and vocal ensembles.

## MUS 402 Choral Conducting and Methods (3)

Basic conducting techniques, and techniques of choral rehearsal and performance. Prerequisite: MUS 401 or consent of instructor.

## MUS 403 Instrumental Conducting and Methods (3)

Conducting techniques through the study of selected instrumental works. The course will include score-reading at the piano. Prerequisites: MUS 402 or consent of instructor.

## MUS 410 Theory IV: 20th Century Techniques (3)

 A study of melodic, rhythmic, harmonic and formal organization of 20th century music. Prerequisites: MUS 210, 220, 150 and 250 or consent of instructor.
## MUS 410 Theory IV: 20th Century Techniques (3)

A study of melodic, rhythmic, harmonic and formal organization of 20th century music. Prerequisites: MUS 210, 220, 150 and 250 or consent of instructor.

## MUS 412 Jazz Composition (3)

Study of form and techniques for jazz composition. Students will compose five tunes. Prerequisites: MUS 312 or 389.

## MUS 415 Voice Methods (1)

Group work and teaching techniques in the fundamentals of singing. Problems of tone production, breath control, diction, repertory, and interpretation. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor

## MUS 418 Guitar Methods (1)

Basic performing and teaching techniques on guitar. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

## MUS 420 Ear Training IV (2)

Continuation of Ear Training III. Begins with Mozart, and proceeds through Beethoven and the Romantics into music of the twentieth century. Emphasizes accurately singing and hearing music of increasing chromatic complexity, using an intervallic approach to augment tonal hearing. Listening and analysis activities focus upon selection of great works from Mozart to Stravinsky. Prerequisite: MUS 320 or equivalent.

## MUS 420 Ear Training IV (2)

Continuation of Ear Training III. Begins with Mozart, and proceeds through Beethoven and the Romantics into music of the twentieth century. Emphasizes accurately singing and hearing music of increasing chromatic complexity, using an intervallic approach to augment tonal hearing. Listening and analysis activities focus upon selection of great works from Mozart to Stravinsky. Prerequisite: MUS 320 or equivalent.

## MUS 422 String Methods (1)

Basic performing and teaching techniques on orchestral string instruments. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

## MUS 423 Woodwind Methods (1)

Basic performing and teaching techniques on band and orchestral woodwind instruments. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

## MUS 424 Brass Methods (1)

Basic performing and teaching techniques on standard brass instruments. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

MUS 425 Composers Forum (1)
Individual projects in creative work. Individual projects in jazz performance.

MUS 426 Jazz Forum (1)
Individual projects in creative work. May be repeated for credit. Prerequisite: consent of instructor.

## MUS 429 Percussion Methods (1)

Basic performing and teaching techniques on standard percussion instruments.
May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

MUS 433 Private Instruction-Strings (1)
Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 133 and audition.

MUS 434 Private Instruction-Woodwinds (1)
Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 134 and audition.

MUS 437 Private Instruction-Brass (1)
Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 137 and audition.

## MUS 438 Private Instruction-Percussion (1)

Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 138 and audition.

## MUS 439 Private Instruction-Keyboard (1)

Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 139 and audition.

MUS 440 Vocal/Instrumental Proficiency Jury (1) A performance illustrating proficiency as well as knowledge of the technique and tone production in voice, on guitar, and on string, woodwind, brass and percussion instruments. For students in the music education concentration or the California Music Subject Matter Competency Program. Cr/NC only. Prerequisites: MUS 415, 418, 422, 423, 424 and 429.

MUS 441 Private Instruction-Voice (1) Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 141 and audition.

MUS 442 Private Instruction - Indian Singing (1)
Private instruction in Indian classical singing. Maybe repeated for credit. Prerequisite: MUS 353 and consent of instructor.

## MUS 443 Private Instruction-Guitar (1)

Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 143 and audition.

## MUS 445 Private Instruction-Composition (1-2)

Private instruction in composition for advanced students. May be repeated for credit. Prerequisite: MUS 425 or consent of instructor.

## MUS 446 Private Instruction-Conducting (1-2)

Private instruction in conducting for advanced students. May be repeated for credit. Prerequisite: audition.

## MUS 447 Applied Music Studies (1)

Advanced individual study of instrument or voice. Instructor permission required. May be repeated for credit.

## MUS 448 Vocal Accompanying Workshop (1-2)

This course offers pianists and vocalists an opportunity to explore and perform their shared repertoire. Emphasis will be placed on developing communication skills between performers and on improving sight reading proficiency. The course culminates in a recital presented by class members.

## MUS 451 Repertory Class-Private Instruction (1)

This class provides an opportunity for students to perform their repertory in a group setting. Private instruction faculty coach students in technique, interpretation, and presentation. Classes are normally offered for voice and classical instrumental. May be repeated for credit. Prerequisite: concurrent enrollment in the appropriate private instruction course.

## MUS 453 Advanced Indian Singing Ensemble (1)

This course is designed for advance singers of Indian classical music. It is open to those who have taken 3 semesters of MUS 321/353 or the consent of the instructor.

MUS 460 Teaching Assistant in Music (1-4)
MUS 480 Special Topics (1-4)
Topic will vary from semester to semester. Consult Schedule of Classes for current offering.

## MUS 481 Special Topics Workshop (1-3)

Activity will vary from semester to semester. Consult Schedule of Classes for current offering.

## MUS 489 Jazz Improvisation IV (3)

Continuation of MUS 389. Advanced thythmic concepts and techniques for improvising on contemporary modal and free-form compositions. Prerequisite: MUS 389.

## MUS 490 Senior Project (1-3)

A course in which the work of the music major reaches culmination. Group or individual projects in research, analysis, theory, or performance that bring together all the skills and proficiencies developed by the student. For the music education concentration the project is a summative portfolio. Prerequisites: completion of all music major requirements or consent of instructor.

## MUS 491 Senior Recital (2-3)

The preparation and presentation of a senior recital is the culminating activity for music majors in the performance concentration. Prerequisites: completion of all performance concentration requirements or consent of instructor.

MUS 495 Special Studies (1-4)
Individualized studies in topics beyond the scope of the regular curriculum. Contract with an instructor, specifying work to be completed. A regular schedule of contract hours is necessary. Prerequisite: consent of instructor.

## MUS 499 Internship (1-4)

Work experience in organizations and projects related to music. Prerequisites: appropriate preparation for successful completion of internships and consent of instructor.

MUS 500 Introduction to Graduate Study (3)
A course in the methods and materials for research in music. Proficiency in an imaginative use of the resources for accessing musical data will be developed through projects in bibliography. Required of first-semester graduate students.

## MUS 595 Special Studies (1-4)

Individualized studies in topics beyond the scope of the regular curriculum. Contract with an instructor, specifying work to be completed. A regular schedule of contract hours is necessary. Prerequisite: consent of instructor.

## Native American Studies (NAMS)

## NAMS 200 Introduction to Native Americans (3)

A survey of the various geographical environments of tribes living in North America. The emphasis is upon precontact cultures, but includes cultural and historical changes to tribes during the settling of this country by Europeans. Satisfies GE category D1 (Individual and Society), and the ethnic studies requirement.

## NAMS 205 Introduction to Native American Arts (3)

A general introduction of the traditional American Indian arts in the United States. The course will include information on the culture that produced the art forms. Craft projects or research paper by the student will be a part of the class requirements. Satisfies GE, category C1 (Fine Arts), and the ethnic studies requirement.

## NAMS 300 Experimental Courses (1-4)

Content varies from semester to semester. The majority of these courses are designed as short-term field excursions into various areas of the country where American Indians lived or are living.

## NAMS 305 North American Indian History (4)

A survey-lecture course. It will chronologically follow the economic, military, social, and legal relationships between North American Indians and Euro-American colonists. Special emphasis will be placed on the relations with the federal and state governments from the Colonial period to the 20th century.

## NAMS 338 Native Americans and The Cinema (3)

This course examines and critiques the depiction of Native Americans in American cinema, video, and documentary films. These media efforts are analyzed through an exploration of stereotypes, literature, and other popular influences found in American society. Documentary films by non-Indian and Native American film makers will be examined and analyzed. Satisfies GE, category C1 (Fine Arts), and the ethnic studies requirement.

NAMS 346 Phlosophic Systems and Sacred Movements in Native North America (3)
Only by common participation in religious cults and philosophic systems have the separate Indian tribes of North America ever united. This proposition will be critically examined by analysis of prehistoric and contemporary American Indian religious movements and philosophic systems. Precontact native religious systems will be surveyed. Archaeoastronomy and native art forms will be investigated as expressions of religious activities. Postcontact religious reorganization such as the ghost dance will be studied. Satisfies GE, category C3 (Philosophy and Values), and the ethnic studies requirement.

## NAMS 354 Native American Literatures (3)

A discussion of traditional myths and songs as well as contemporary literary works of Native Americans. Satisfies GE, category C2 (World Literature), and the ethnic studies requirement.

## NAMS 399 Selected Topics (1-3)

This student-instructed course is offered periodically on various Native American subjects. The course is offered when instructors are available with unique knowledge and skill not available through the regular faculty.

NAMS 400 Special Topics (1-4)
Special topics courses in Native American studies are offered occasionally, depending on student interests and faculty availability. Typically, courses might be: Native American Law, Health Issues in the Native American Community, and Native American Tribal Government.

NAMS 410 Seminar: Individual Native American Culture (4) An in-depth focus on the cultural experience of an individual Native American people.

## NAMS 412 Native California History and Culture (4)

 A survey of the cultures and histories of Native California Indians. Special emphasis on local Indians.
## NAMS 414 Native American Cultures of America SW (4)

An examination of the prehistory, ecology, settlement patterns, social organization, cosmological and ritual systems, material culture, mythology, language and status of Southwestern Native Americans.

NAMS 418 Regional Historical Studies (4)
Seminar. Provides students with an opportunity to pursue various regional studies of Indian groups from precontact times to the present. Prerequisite: NAMS 200 or consent of instructor.

NAMS 420 Fundamentals of Native American Education (1-4) This course is appropriate for those who will be teaching Native American students K -12 or those who wish to develop curriculum materials about American Indians. A survey of North American Indian educational history will be followed by practical projects stressing appropriate teaching strategies.

## NAMS 430 Advanced Native American Art Workshop (1)

Emphasizes the practical application of traditional and contemporary Native American art forms, designs, and techniques. This course attempts to advance the students' utilization of and appreciation for the various methods and skills of Native American arts while promoting individual creativity.

## NAMS 440 The Contemporary Native American (4)

A seminar on the status of Native Americans in modern American society, including economic, political, and legal aspects; the role of the federal government; and the emergence of pan-Indianism and political activism.

NAMS 442 Contemporary Affairs: Native Americans of CalforNIA (3-4)
An intensive study of the contemporary problems, issues, and developments involving American Indians in California.

NAMS 495 Special Studies (1-4)
Prerequisites: An upper-division core course; approval of supervising faculty member and approval of program coordinator.

## Nursing (NURS)

## NURS 200 Professional Concepts in Nursing (3)

Seminar, 3 hours. Professional, Philosophical and theoretical foundations of nursing are explored. Basic concepts of health are examined and issues common to all aspects of professional nursing are introduced. Corequisites: NURS 205 and 210A.

## NURS 203 Basic Pharmacology for Nurses (2)

Seminar, 2 hours. Introduction to principles of pharmacology and to the nurse's role in the safe administration of medications. Content includes basic pharmacological principles, physiological actions, therapeutic and adverse effects of major drug classifications and routes of administration, basics of drug calculations, and patient education.

## NURS 205 Skills in Professional Nursing Practice (3)

Lecture 2 hours, Laboratory 3 hours. Concepts, processes and practices are offered in a variety of classroom and laboratory activities using the nursing process. The nursing laboratory emphasizes the role of the nurse and the opportunity to acquire and demonstrate communication an psychomotor skill proficiency. Lagoratory fee payable at time of registration.

## NURS 206 Psychiatric/Mental Health Nursing (3)

Seminar 2 hours, Laboratory 3 hours. Students are introduced to the principles of mental health and illness. Nursing care therapeutics with populations experiencing mental health, stresses and psychiatric illnesses are examined and applied.

## NURS 208 Nursing Applications of Pathophysiology (3)

Seminar, 3 hours. Pathophysiology in medical-surgical nursing is presented as a foundation for caring for the adult patient. Health and disease processes are studied as they apply to the clinical care of the adult patient.

## NURS 210A Clinical Practicum I (4)

Clinical Laboratory, 12 hours. Students apply the nursing process and theoretical principles to the care of adults across the lifespan in health care settings. Students develop the ability to recognize health problems and implement professional standards of care. Corequisites: NURS 200, 203 and 205.

## NURS 210B Clinical Practicum II (4)

Applies theoretical principles of nursing care to individuals across the lifespan in acute care and psychiatric health care settings. Emphasis is on providing care to persons experiencing changes in health and illness. Prerequisites: NURS 200, 205, 210A.

## NURS 300 Introduction to Evidence-Based Practice (3)

Seminar, 3 hours. Discusses the nature of scholarly inquiry to locate, critically appraise and use research and practice guidelines to inform evidence-based practice. Approaches to research in nursing are explored. Students critically appraise and interpret studies and practice guidelines to enhance their understanding of the relationship between theory, practice and research. Prerequisites: Statistics.

NURS 305 Assessment and Clinical Decision Making (3) Seminar, 2 hours; laboratory, 3 hours. Concepts and skills of human health assessment basic to clinical decision making within the caring process are expanded. Interview skills focus on eliciting an accurate and thorough history, taking into account multiple dimensions that characterize the person. Physical examination skills are further developed to provide a database for nursing diagnosis and planning nursing care. Laboratory fee payable at time of registration. Prerequisite: acceptance to RN-BSN program.

## NURS 312 Baccalaureate Nursing Perspectives I (4)

Explore contemporary perspectives in baccalaureate nursing with emphasis on professionalism, theory and evidence-based practice, communication, client education, critical thinking, leadership and professional development.

## NURS 313 Baccalaureate Nursing Perspectives II (4)

Seminar, 4 hours. Application of baccalaureate nursing perspectives to women's and children's health care, adult complex care and mental health care. Explores advocacy and care of individuals, families and communities. Pre/Co-requisite: NURS 312.

NURS 340 Women's Health in the Expanding Family (2-3)
Seminar, 3 hours. Principles and concepts of wellness and illness in childbearing and child-rearing families. Preventive and therapeutic aspects of nursing care for the pregnant and post-partum client. Use of community resources introduced. Prerequisites: all 200-level nursing major courses; concurrent enrollment in NURS 342 and 345 .

## NURS 342 Child Health in the Expanding Family (2-3)

Seminar, 3 hours. Principles and concepts of child wellness and illness in the context of the family. Preventative and therapeutic aspects of nursing care of the infant, child, and adolescent are emphasized. Prerequisites: all 200-level nursing courses; concurrent enrollment in NURS 340 and 345.

## NURS 345 Clinical Practicum with Expanding Families (3-4)

Clinical Laboratory, 12 hours. Applies the nursing process to child-bearing and child-rearing families. Clinical experiences focus on principles and concepts of health promotion and maintenance to families in various phases of the health and illness continuum. Prerequisite: all 200 -level nursing major courses. Corequisite: NURS 340 and 350 . Malpractice insurance required.

NURS 348 Foundations of Obstetrical and Pediatric Nursing (6) Challenge credit for obstetrical and pediatric nursing care principles and practice content in curriculum for licensure. Open only to matriculated RN-BSN students who have passed the NCLEX-RN. Prerequisite: NURS 312 and NURS 313.

NURS 380 Care of Individuals and Families with Complex Needs (3)

Seminar, 3 hours. Applies the nursing process to individuals and families with complex health care needs, emphasizing care of older adults. Prerequisite: NURS 340,342 and 345 . Corequisite: NURS 385.

NURS 385 Clinical Practicum in Care of Individuals and Families with Complex Needs (3)
Clinical Laboratory, 9 hours. Applies the nursing process to individuals and families with complex health care needs, emphasizing care of older adults. Clinical experience originates in acute care settings and includes discharge planning, case management and leadership roles of the nurse. Corequisite: NURS 380.

## NURS 388 Foundations of Psychiatric and Complex Nursing

 Care (7)Challenge credit for advanced medical-surgical and psychiatric nursing care principles and practice in curriculum for licensure. Open only to matriculated RN-BSN students who have passed the NCLEX-RN. Prerequisites: NURS 312 and NURS 313.

## NURS 395 Community Involvement Program (1-4)

CIP involves students in community problems related to the promotion of health and the prevention of illness. Credit may be given for such activities as volunteer work in health agencies and planning and participating in community health projects. A total of 6 units may be applied toward a degree. May be taken by petition only. Prerequisites: admission to the nursing major, consent of advisor and department chair.

## NURS 396 Selected Topics in Nursing (1-3)

A single topic or set of related topics not ordinarily covered by the nursing major curriculum (e.g., sexuality, death and dying, health planning and policy). The course may be repeated for credit with different topics, to a maximum of 12 units. Prerequisite: consent of instructor.

## nURS 404 Community Health Nursing Theory (3)

Seminar, 3 hours. Explores population-focused nursing in the context of promotion protection, and improvement of health for individuals, families and communities. Determinants of health and operations of the health care system will be discussed with an emphasis on social, cultural, and environmental factors, which impact the health of the greater community. Prerequisite: NURS 300.

## NURS 405 Community Health Nursing Practicum (3)

Clinical practice, 9 hours. Students apply knowledge and skills from nursing and public health science to provide clinical care for client, individuals and families in their communities. Cultural diversity and vulnerable populations are emphasized while exploring the community as client. Pre/Corequisite: NURS 404.

## NURS 415 Theory in Nursing Practice (1)

Seminar, 1 hour. Theories and concepts from nursing and related sciences are applied to a selected client population in a clinical setting. A learning contract for senior clinical study is developed by each student in a selected area of nursing practice that includes client care, research and theory, legal and ethical issues, standards of practice, and leadership and management in the clinical setting. Students must expect to complete NURS 425 Senior Clinical Study within the next two semesters.

## NURS 425 Senior Clinical Study (4)

Clinical Laboratory, 12 hours. Clinical application of Humanistic Nursing Theory. Concepts from nursing and from related sciences are applied in the nursing care of selected populations. Informed choices through critical analysis of evidencebased practice and moral and ethical standards are applied to nursing care. Integration and synthesis of concepts, personal development and leadership/management abilities are expanded through professional nursing practice. Prerequisite: NURS 415 within past two semesters.

## NURS 440 Nursing Leadership and Management (3)

Lecture/discussion, 3 hours. Formulates a theoretical foundation for the process of nursing leadership and management. Attitudes and behavioral principles of effective leadership are developed and applied. Problem-solving strategies are developed as management problems are analyzed. Effects of the management process on patterns of health care practice and delivery are critically evaluated. Prerequisite: completion of all 300-level course work.

## NURS 450 Nursing in a Sociopolitical Environment (3)

Seminar, 3 hours. Explore historical and current sociopolitical issues in nursing and health care and their impact on the practice and profession of nursing. Professional accountability and effective sociopolitical advocacy are emphasized. Prerequisite: completion of all 300-level course work.

## NURS 480 Health, Sexuality, and Society (3)

Seminar, 3 hours. Examines issues in human sexuality as they relate to the health and well-being of self and others. A range of human sexual experience will be explored. Satisfies GE, category E. Open to non-nursing majors. Prerequisite: upper-division standing.

## NURS 495 Special Studies (1-4)

Individual or group study, under guidance of an advisor, of special issues in nursing. Prerequisites: admission to the nursing major and/or consent of instructor and department chair. Specific guidelines available from the nursing department.

## NURS 497 Nursing Externship (2-6)

Clinical Laboratory, 6 to 18 hours. Work study course offered in cooperation with selected clinical agencies. Students apply previously learned nursing theory and clinical skills in assigned patient care setting under the supervision of selected Registered Nurse preceptors. The course is offered for 2-6 units. Cr/NC only. Prerequisites: NURS 385 and permission of instructor.

## NURS 500A Scholarly Inquiry (3)

Seminar, 3 hours. Linkages between theory, research and advanced practice are developed to provide the student with the necessary skills to critically analyze and apply research.

## NURS 500B Scholarly Inquiry (3)

Seminar, 3 hours. Students apply the knowledge and skills gained in NURS 500A through scholarly activities and projects in community settings.

## NURS 501 Assement and Maintenance of the Individual, Family

 and Community (3)Seminar, 3 hours. Expands the students' ability to identify and promote behaviors that enhance the health of self, individuals and families. Principles from epidemiology, family health, psychology, sociology, change theory and related therapies. Focuses on rapid identification of physical, mental, emotional and spiritual health risks and modification of those risks as part of primary care.

## NURS 502 Pathophysiology Basis of Nursing Care (3)

Seminar, 3 hours. Physiological and pathophysiological processes are examined and integrated within the context of the human experience.

## NURS 504 Policy and Politics of Health Care (2)

Seminar, 2 hours. Course reviews the principal ways health care is organized and financed, and identifies current issues in health care organization and financing. Analytic perspectives on health and health care economics are emphasized. Prerequisite: graduate nursing student or consent of instructor.

## NURS 505 Ethics in Healthcare (2-3)

Seminar, 3 hours. Bioethics in healthcare is critically discussed from both a theoretical and practical viewpoint. Separate modules address various ethical aspects of healthcare delivery related to clinical, educational and administrative topics.

## NURS 506 Systems Management in Healthcare (4)

Seminar, 4 hours. Systems Management utilizes systems theory in understanding organization behavior and change. The content of the course includes selected issues in organization environment, structure, culture, human resources, politics and system leadership. The process of the course will focus on effecting organization change.

## NURS 507 Community Health Nursing Theory (3)

Seminar, 3 hours. Explores population-focused nursing in the context of promotion, protection, and improvement of health for individuals, families and communities. Determinants of health and operations of the health care system will be discussed with an emphasis on social, cultural, and environmental factors which impact the health of the greater community.

## NURS 509 Advanced Assessment and Clinical Decision

 Making (3)Seminar, 3 hours, Laboratory 3 hours. Advanced concepts and skills in human health assessment are presented in relation to clinical decision-making. Interview skills focus on eliciting an accurate and thorough history, taking into account multiple dimensions of the person. Exam skills are further developed to provide a database for advanced diagnosis and care. Lab fee. Open to the individuals entering the Family Nurse Practitioner program.

## NURS 510 Professional Issues and Leadership (2-3)

Seminar, 2 or 3 hours. Current nursing issues in advanced practice, professionalism, and nursing education are examined from a leadership perspective. Focuses on expanding nursing power and influence in professional situations. Faculty and students collaborate in the identification of contemporary issues.

## NURS 514 Community Health Nursing Practicum (3)

Clinical practice, 9 hours. Students apply knowledge and skills from nursing and public health science to provide clinical care of clients, individuals and families in their communities. Cultural diversity and vulnerable populations are emphasized while exploring the community as client. Pre/Corequisite: NURS 507.

## NURS 515A Financial Management in Health Care Organizations I (3-4)

Seminar, 3 or 4 hours. Provides theory and experience with the elements of budget development. The course is divided into segments: 1) pre-budget, 2) budget preparation and 3) monitoring variance. Students select a clinical site and mentor to provide experience with budget preparation and monitoring. DEMSN students take this course for 3 units; all other Leadership and Management students take this coures for 4 units.

## NURS 515B Financial Management in Health Care

 Organizations II (4)Seminar, 3 hours. Continuation of NURS 515A provides hands-on experience with budget control and variance.

## NURS 516 Pathophysiological and Pharmacological Issues in

 Clinical Nursing (3)Seminar, 3 hours. Advances knowledge of pathophysiological and pharmacological issues in support of the clinical nurse leader role functions of advocate, educator, systems analyst/risk anticipator, clinician and outcomes manager.

## NURS 522A Instruction Process in Higher Education I (4)

Seminar, 4 hours. First in a series on current teaching strategies in higher education. Students will explore the core competencies of nursing education including theoretical foundations of teaching/learning, curriculum development, learning environments, diverse classrooms, technology/curriculum delivery systems, simulation, clinical coaching, promotion and assessing critical thinking and evaluation in the academic arena.

NURS 522B Instructional Process in Higher Education II (4)
Seminar, 4 hours. The second in a series of two courses on current teaching strategies in higher education. Students will explore the core competencies of nursing education including theoretical foundations of teaching/learning, curriculum development, learning environments, diverse classrooms, technology/curriculum delivery systems, simulation, clinical coaching, promotion and assessing critical thinking and evaluation in the academic arena. Prerequisite: NURS 522A.

NURS 525 Clinical Practicum (3)
Clinical laboratory, 9 hours. Clinical application of theories and concepts from nursing and related sciences is applied in the nursing care of selected populations. Research-based knowledge and pertinent theoretical frameworks are utilized to respond to complex and specific health care needs of these populations. Integration and synthesis of concepts, personal development and leadership/management abilities are expanded through professional nursing practice.

## NURS 526 CNL Professional Role Development (2)

Provides leadership in the application of the nursing process to client care, organizational processes and/or systems, improving outcomes at the unit or service level.

## NURS 530 Nursing Leadership Theory (4)

Seminar, 4 hours. Theories of organizations and management are analyzed in relation to health care and nursing care delivery systems. Emphasis is placed on analyzing and evaluating the relationship between clinical nursing practice and organizational management. Organizations are analyzed according to structure, functions and organizational behaviors. Prerequisites: concurrent enrollment in NURS 535A.

## NURS 530 Nursing Leadership Theory (4)

Seminar, 4 hours. Theories of organizations and management are analyzed in relation to health care and nursing care delivery systems. Emphasis is placed on analyzing and evaluating the relationship between clinical nursing practice and organizational management. Organizations are analyzed according to structure, functions and organizational behaviors. Prerequisites: concurrent enrollment in NURS 535A.

## NURS 535A Residency (3)

Field Work, 9 hours. Focus is on the synthesis of theoretical nursing knowledge and role development in areas of education, management or clinical nurse leader. Select assignments provide for practice with a preceptor in a designated practice or educational setting.

## NURS 535B Residency (2)

Field Work, 6 hours. Continues from N535A with a focus on the synthesis of theoretical nursing knowledge and role development in areas of education, management or clinical nurse leader. Select assignments provide for practice with a preceptor in a designated practice or educational setting. . Pre-requisite/ Co-Requisite: N535A.

## NURS 536 CNL Professional Role Devlopment (2)

Clinical residency informing and demonstrating the clinical nurse leader role functions of advocate, member of profession, team manager, information manager, systems analyst/risk anticipator, clinician, outcomes manager and educator. Prerequisites: RN licensure and completion of N506, N502, N509, N507, N515A, N500A, N500B, and N514.

## NURS 540A Pathophysiological Concepts in Diagnosis and

 Treatment I (2)Seminar, 2 hours. Develops a pathophysiological conceptual foundation for the diagnosis and management of common acute and chronic illnesses in advanced primary care nursing practice. Research and theory from various disciplines are used to evaluate unique interaction patterns of person and environment as a basis for selecting strategies to promote health and minimize the effects of illness. Emphasizes interdisciplinary aspects of primary health care through partnerships with patients as a basis for collaboration, consultation and referral.

## NURS 540B Pathophysiological Concepts in Diagnosis and

 Treatment II (4)Lecture/discussion, 4 hours. Further develops a foundation for the diagnosis and management of common, yet more complex, acute and chronic illness in advanced primary care nursing practice. Research and theory from various disciplines are used to evaluate unique interaction patterns of person and environment as a basis for selecting strategies to promote health and minimize the effects of illness. Continues to emphasize the interdisciplinary aspect of primary health care through partnerships with patients as a basis for collaboration, consultation and referral. Prerequisite: NURS 540A.

## NURS 549 Health Maintenance Practicum (3)

Clinical Laboratory, 9 hours. The course reviews health assessment of the adult and introduces assessment of the well-child and healthy pregnant woman. The course correlates with and supports the student in applying the theoretical concepts of health maintenance from NURS 501. The course provides the student with a comprehensive understanding of health promotion and disease prevention in clients across the life span. The course provides the students with the skills to evaluate the health status of a client taking into account the unique dimensions of a person including culture, ethnicity, socioeconomic status, educational status and religious and spiritual status when developing a health maintenance plan. Prerequisites: acceptance into family nurse practitioner program; concurrent enrollment in NURS 550A and previous or concurrent enrollment in NURS 501 and 540A. Laboratory fee payable at time of registration.

## NURS 550A FNP Preceptorship I (2)

Clinical preceptorship, 6 hours. Beginning clinical practice in primary care settings is implemented. Specialized knowledge and skills are utilized to assess physical, emotional, social, cultural and spiritual needs of patients. Concepts from various disciplines are integrated to provide a framework for developing and applying strategies for health promotion and illness management. Begins to develop advanced nursing role identity as FNP. Prerequisites: concurrent enrollment in NURS 549; previous or concurrent enrollment in NURS 501, 540A and 552. Laboratory fee payable at time of registration.

## NURS 550B FNP Preceptorship II (5)

Clinical preceptorship, 15 hours. Continued implementation of clinical practice in primary care settings. Further develops and expands FNP clinical judgment and practice skills in family primary care. Research findings and theory-based knowledge are applied to formulating diagnoses and management plans. Personal and professional parameters of the nurse practitioner role are examined. Prerequisite: NURS 550A. Laboratory fee payable at time of registration.

## NURS 550C FNP Preceptorship III (4)

Clinical preceptorship, 12 hours. Expands clinical practice in primary and extended care settings. Facilitates the integration of nursing and other theories and research in providing health care to individuals, families and groups. Conceptual perspectives are applied as a foundation for complex decision making in advanced nursing practice. Professional identity is expanded to integrate the multiple aspects of the nurse practitioner role. Prerequisites: NURS 540A/B, 549 and 550A/B.

## NURS 552 Pharmacology for FNPs (3)

The principles of pharmaco-kinetics and pharmaco-dynamics provide the management of primary care conditions. The course emphasis is on safe, ethical and legal NP scope of practice and meets State criteria for the furnishing of drugs and devices by NPs, including Schedule II and DEA. Concurrent enrollment in NURS 540A or permission of instructor required.

## NURS 553 Pharmacology for CNL (2)

Seminar, 2 hours. Develops a foundation for safe and effective management of pharmacological needs of clients with acute and chronic illness. Research findings and evidence-based knowledge are applied. Emphasizes the role of the nurse in critically evaluating medication effects, side effects and interactions, Principles of pharmacology relative to human physiology are reviewed.

## NURS 555 FNP Expanded Clinical Practice (2-4)

To enhance and expand clinical decision-making skills via extended clinical practice in preceptorship for Family Nurse Practitioner students. To synthesize and concisely report clinical findings via written or dictated chartnotes and verbal presentation to preceptor.

## NURS 578 Project Continuation (1-3)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. $\mathrm{Cr} /$ NC only.

## NURS 595 Special Studies (1-4)

Individually arranged course for one or more students who wish to pursue academic interests beyond the scope of the regular curriculum. Prerequisites: acceptance into master's program in nursing, and consent of instructor and department chair.

NURS 596 Selected Topics In Nursing (1-5)
A single topic or set of related topics not ordinarily covered in the graduate curriculum (e.g., nursing administration and supervision, curriculum development and teaching methods). The course may be repeated for credit with a different topic, to a maximum of 12 units. Prerequisite: consent of instructor.

## NURS 599 Master's Thesis (2-6)

Research on thesis developed by student in consultation with nursing department faculty, and approved by the department and the student?s Thesis Committee.
Prerequisites: NURS 503A and approval of thesis prospectus.

## Philosophy (PHIL)

## PHIL 101 Critical Thinking (4)

Critical thinking is the best defense against intellectual trickery and self-delusion. It provides specific techniques and tools whereby we can avoid basic fallacies in our own thinking and detect them in the thought of others. Reasoning is a highly complicated human activity and cannot be satisfactorily studied in an intellectual vacuum. Hence, in this course, critical and uncritical thought are contrasted in the context of the world of human interests and activities - social, political and scientific. All of the basic "tricks" for persuading people to accept false premises and conclusions as true are systematically laid out and their detection practiced. Satisfies GE, category A3 (Critical Thinking).

## PHIL 102 Introduction to Logic (3)

An introduction to the nature of contemporary systems of logic and their application. Students will learn how to abbreviate arguments in ordinary language, to deduce conclusions, and to locate fallacies. Recommended for students of the sciences, computer programming or mathematics, and the general student interested in the structure of arguments. Satisfies GE, category A3 (Critical Thinking).

## PHIL 120 Introduction to Philosophy (3)

This course provides an introduction to some of the enduring questions of thinking: What is the nature of knowledge, of morality, of justice, of the self, of religion, of the search for wisdom, of reality? Topics and approaches may vary from section to section. Consult the department office for current information. Satisfies GE, category C3 (Philosophy and Values).

## PHIL 200 Philosophical Issues (3)

Students practice the techniques of reading and thinking critically, of expository writing, and of oral expression as they reflect together on philosophical issues. Recent topics have included Human Consciousness, Foundations of Greek and Chinese Thought, and Philosophical Issues in Global Climate Change. As students read and discuss the semester's topic, they will reflect consciously on the principles of thinking, speaking, and writing. This skills- oriented course reflects the assumption that we master skills more thoroughly when we are working on an interesting set of issues that are significant and relevant to our lives. Prerequisites: completion of GE categories A2 and A3.

## PHIL 202 Proseminar (3)

This course is designed to help students acquire the skills required to successfully major or minor in philosophy, skills such as making effective oral presentations or critically evaluating demanding philosophical texts. The course will be based on an investigation of important contemporary or historical problems, and attention will be paid to both analytic and continental approaches to these problems. Possible topics of discussion are: postmodern critiques of science; moral relativism; arguments for the existence of god; the good life; the nature of emotions; the nature of beauty. Topics will vary from year to year depending on the interests of faculty. Prerequisites: current philosophy major or minor, or permission of instructor.

## PHIL 204 Applied Ethics (3)

Applied ethics deals with ethical problems in different areas of human life in an interdisciplinary way. It includes, for instance, social and political ethics, computer ethics, medical ethics, bioethics, environmental ethics, business ethics, and it also relates to different forms of professional ethics. In a course in applied ethics a student can expect to explore the social and ethical impact of human behavior in specific areas of human endeavor, and can expect to learn how humans might apply normative rules in practical contexts.

## PHIL 207 Philosophical Movements (3)

This course will explore philosophical movements and figures in an intersubdisciplinary fashion, which includes metaphysical, epistemological and axiological questions. Topics will vary but may include: Historical frameworks of philosophical thought, a focused survey of a particular philosophical figure, an examination of a particular school of thought, or the impact of philosophical thought on global history or culture. This class will be comparative in nature and class will be held in the lecture/seminar format.

## PHIL 301 Philosophy of Science and Technology (3)

Our lives are fundamentally shaped by Science and Technology, this fact has concerned some of the best minds in philosophy. Recently the scope and speed of scientific discovery and technological change has noticeably accelerated with the advent of information technology. Fantastic claims have been made in regards to our potential to understand through science and control through technology nearly every aspect of the natural world, including our own bodies and minds. This fundamental alteration of humanity must not go unexamined. In this class we will explore the great impacts science and technology has on our ability to know about the world, to understand our origins, and our efforts to promote or challenge our social values and the rise of technoethics. We will look at science and technology as a human practice that inherently fosters certain social values at the expense of others.

## PHIL 302 Ethics and Value Theory (3)

An introduction to the philosophical analysis of ethics, morality and values, and a survey of the various systems of moral philosophy. The course covers such issues as: What is the good life? What considerations are relevant to making moral decisions? Are moral principles universal, or relative to a given society? How, if at all, can moral judgments be justified or moral disagreements resolved? Satisfies GE, category C3 (Philosophy and Values). Consult Schedule of Classes for topic to be studied. May be repeated (with a different focus) for credit.

## PHIL 303 Social and Political Philosophy (3)

A philosophical examination of the Western tradition of social and political thought. The course will discuss topics such as justice and the ideal society, the question of justified revolution, the role of private property, freedom, individual rights and social welfare, different forms of government and the role of values in political deliberation.

## PHIL 305 Truth (3)

The aim of this course is to examine a wide sampling of answers to one of the great perennial questions of philosophy: what is truth? Depending on the interests of the faculty, possible readings might address, but are not limited to, the following thematic areas of interest: debates over truth from Socrates to Nietzsche and beyond; the meaning of truth in science, technology, religion and art; truth and power; non-Western approaches to truth; universal versus particular truth. This course is required of all students who are majoring in philosophy.

PHIL 306 Contemporary Topics in Philosophy (3)
This course introduces students to themes, thinkers, and debates within contemporary philosophy. While the specific emphasis may vary, the course engages with the open-ended problems and concerns that currently animate philosophical research. Students will be encouraged to think self-reflexively about the nature of philosophical thinking and the ways in which philosophy participates in public debates today. Topics may include globalization and financial crisis, democracy and violence, post-colonialism, neo-liberalism, and market-critique, religious pluralism, media and pop culture, law and social movements.

## PHIL 307 Philosophical Figures (3)

Selected each semester will be an important figure or grouping of figures, such as a school, movement, or noted debate, from the philosophical canon or outside the canon. The figure or figures $\dot{¿}$ work will be introduced in such a way to historically contextualize their significance and place within the tradition.

## PHIL 311 Robotics and the Transhuman Future (3)

The field of Cognitive robotics presents us with profound philosophical questions. Can robots be used to model or replicate human cognitive functions? How would robust robotic artificial intelligence change the world we live in? What would it mean to be human in a fully automated world? To begin to answer these questions we will create simple mechanical reasoning devices and discuss their relevance to philosophical theories of life and mind. We will use LEGO beams, plates, gears, motors, and a RCX micro controller board programmed in the LEGO or NQC (Not Quite C) language along with various sensors and motors to construct small autonomous robots. These robots will be used to try to recreate and explore the strengths and weaknesses of some recent experiments in the field of cognitive robotics.

## PHIL 313 Ethics in Science, Engineering, and Information

 Technology (3)Advanced sciences and high technologies constantly challenge our notions of ethics and morality. In this class we will look at ethical theories that seek to give guidance to scientists, engineers, and other technologists whose work is not only changing the way we live our lives but also our very understanding of life and our place in the universe. Students will look at case studies on topics such as; biotechnology, ethical decision making in the technological design process, engineering disaster analysis, ethics and information technology, technology design and its impact on the traditional social contract.

## PHIL 315 Existentialism (3)

Existentialism points to the philosophical significance of human existence itself: to do philosophy means to take oneself seriously as an embodied, finite subject, existing in the world and relating to other subjects. Existentialist thought is both a historical movement in philosophy and also a methodology of philosophy. In this class, we will read several prominent existentialist philosophers and examine relevant themes such as the ethics of ambiguity, anxiety and dread, passion and desire, subjectivity and intersubjectivity, finitude and the divine, freedom and choice.

## PHIL 325 Environmental Philosophy (3)

This course examines the philosophical problems that emerge with sustained reflection on environmental issues. These problems include: the moral standing of non-human entities, the status of "value" in nature, and the status of "nature" itself as something other than human, and vice versa.

## PHIL 335 Religion, Spirituality, and Social Justice (3)

In this seminar, we will explore the theme of spiritual or contemplative practice and its relations to social justice. More specifically, in order to probe the related questions--how is spiritual inwardness related to moral or political change, and how does contemplative practice lead to collaborative work for social justice?-this course will examine several key thinkers (eg. Kierkegaard, Arendt, Habermas) who give us resources for diagnosing the symptoms of violence and political apathy and who suggest different and complementary models of contemplative practice. The guiding question of the course will be: to what extent are forms of spiritual praxis--whether overtly religious, secular, or post-secular--inseparable from the search for non-violent means of social change?

## PHIL 338 Philosorhy of Emotion (3)

A philosophical study of emotion, raising definitional, epistemological, meta physical, and value questions about emotion. The course includes the study of particular emotions, such as love, compassion, fear and pride, and makes use of information about emotions from the sciences and social sciences.

## PHIL 340 Buddhism and Philosophy (3)

From its historical beginnings in India through to the schools of Japanese Zen and its eventual introduction to the West, Buddhism has had a distinctive and important impact on philosophical thought. The course will focus on the metaphysical, psychological, ethical, aesthetic, and practical dimensions of Buddhist teachings. Course content and historical emphasis will vary.

PHIL 350 Topics in Moral Philosophy (3)
The aim of this course is to examine recent research and scholarship dealing with a wide range of problems and issues of concern to philosophers who are working in the area of practical philosophy. Some possible topics include: the roles of reason and emotion in moral motivation and judgement; the objectivity of value; the nature of moral identity; social dimensions to moral experience; advanced work in the theory of justice; the scope and limits of morality; the relationship between morality and self-interest; the character of rational action.

## PHIL 355 American Phlosophy (3)

This course surveys major themes and thinkers that define America's distinct philosophical tradition. Stress will be on the origins of "Pragmatism" as a philosophical movement. Our focus will be on the classical thinkers: Emerson, Thoreau, Peirce, James, Dewey, and Mead, and extend to cover the "Neo-Pragmatism" of Richard Rorty, Hilary Putnam, Cornell West, Stanley Cavell and others. Course content and emphasis may vary.

## PHIL 360 Philosophy of Art and Literature (3)

An inquiry into the nature of art and literature. This course includes consideration of such topics as: The Possibility of Defining ?Art,? Artistic Imagination, Creativity and Genius, the Purpose of Art, The Interpretation, and Critical Evaluation of Artworks and Works of Literature, Art and Literature in Everyday Life, and The Intriguing relationship between Philosophy and Literature.

## PHIL 368 Philosophy and Film (3)

A turn to film and film studies in search of contemporary culture's handling of philosophical themes. The course will develop strategies to study the hidden philosophical significance found within selections from film genres. Such study is indebted to the work of Stanley Cavell and his project to find in film the voices of a repressed American philosophy. Work from throughout critical theory will be considered.

## PHIL 370 Advanced Logic (3)

This course is designed for students who have taken an introductory course in logic. The goal of this course is twofold. First, to consider some more complex logical languages and systems, and second, to consider some of the more properly philosophical issues raised by discussion of those systems. Possible topics of discussion include modality and modal propositional languages; the probability calculus and its application to problems of induction and confirmation; decision theory, and some of the paradoxes of rationality that it seems to give rise to; and game theory, and its relation to economic and moral reasoning.

## PHIL 375 Philosophy of Law (3)

This course represents an advanced introduction to seminal problems and themes in the philosophy of law. Of central concern will be two themes: 1) the differences and relation between law, morality, and politics; and 2) the nature of legal reasoning and modes of justification. The course will examine historical and cultural influences on legal institutions and introduce students to rival philosophical approaches such as legal positivism, natural law and legal realism. Specific course emphases and themes may vary depending on faculty interest.

## PHIL 378 Feminist Philosophy (3)

This course is an introduction to feminist philosophy. In this class, we will see how the meaning of concepts such as the body, identity, gender, sexuality, and race have changed throughout the past two centuries by looking at central debates within feminist thought. Questions may include: how is it that we come to expect behavior, appearance, and actions to be essentially gendered? What are the implications of gender for how we understand sexuality and race? Where can we find resources for changing such expectations? How do we decide when such transformation is necessary and worth pursuing?

## PHIL 383 Philosophy of Language (3)

A study of classical and current theories about the nature and functions of language, and about truth and meaning. Analysis of the relevance of philosophy of language to other branches of philosophy, linguistics, psychology and the social sciences. Analysis of philosophical issues in the language of fiction and poetry.

## PHIL 390 Advanced Topics in Philosophy (1-6)

Topics courses are intended to cover some particular aspect of a philosophical problem, a particular philosopher, or some philosophical issue not normally explored in detail in any of the standard course offerings. Topics include: philosophy in literature, American philosophy, phenomenology, advanced logic, philosophy of science, eastern world views and 20th century philosophy. May be repeated (with a different focus) for credit.

## PHIL 399 Student Instructed Course (1-3)

An introductory or advanced course designed by a senior or graduate student and taught under the supervision of faculty sponsor(s).

## PHIL 400 Senior Seminar (3)

A seminar for students in their senior year. Topics vary from semester to semester. May be repeated for credit.

## PHIL 450 Senior Thesis (A) (3)

Writing of a paper deemed acceptable by a faculty director and reader. Superior papers nominated for distinction will be defended before the philosophy faculty. Students wishing to be candidates for graduation "with distinction" are urged to write a thesis. Prerequisite to PHIL 452: PHIL 450. Prerequisites: advanced standing and instuctor consent.

## PHIL 452 Senior Thesis (B) (3)

Writing of a paper deemed acceptable by a faculty director and reader. Superior papers nominated for distinction will be defended before the philosophy faculty. Students wishing to be candidates for graduation "with distinction" are urged to write a thesis. Prerequisite to PHIL 452: PHIL 450. Prerequisites: advanced standing and instuctor consent.

## PHIL 462 Research Assistant in Philosophy (1-6)

Intended to give selected students experience in participating in the construction of a professor's research project. Prerequsites: advanced standing and a faculty invitation.

## PHIL 470 Teaching Assistant in Philosophy (1-6)

Intended to give students experience in assisting the instructor in a philosophy course by doing research and tutoring students in the class. Prerequisites: advanced standing and consent of the instructor.

## PHIL 495 Special Studies (1-3)

Advanced individualized instruction and research with one or more members of the philosophy faculty. The course is designed to provide advanced students with an opportunity to do specialized research and study under strict faculty supervision. Prerequisite: consent of the instructor.

## PHIL 499 Internship (1-4)

Supervised training and experience in applied philosophy for advanced students in community organizations. Internship contracts are required. Cr/NC only. Prerequisite: consent of the instructor.

## PHiL 595 Special Studies in Philosophy (1-6)

Advanced research and writing. Students work under close supervision of faculty members. Subject matter variable. May be repeated for credit.

## Physics (PHYS)

## PHYS 100 Descriptive Physics (3)

Lecture, 3 hours. A descriptive survey of the important principles of physics. Satisfies GE, category B1 or B3 (Physical Sciences).

## PHYS 102 Descriptive Physics Laboratory (1)

Laboratory, 3 hours. Experimental demonstrations, exercises and field trips illustrating the methods by which physicists have learned what they claim to know about the world. Instruction is at the PHYS 100 level. Satisfies GE, category B1 or B3 (Physical Sciences) and GE laboratory requirements. Prerequisite: previous or concurrent enrollment in PHYS 100 or ASTR 100, or consent of instructor.

## PHYS 114 Introduction to Physics I (4)

Lecture, 4 hours. The first of three basic sequential courses in physics for science and mathematics majors. Introduction to vectors; classical mechanics, including particle dynamics and fluid mechanics; simple harmonic motion; thermodynamics and kinetics. Satisfies GE, category B1 or B3 (Physical Sciences). Prerequisite: MATH 161.

## PHYS 116 Introductory Laboratory Experience (1)

Laboratory, 3 hours. Demonstrations and participatory experiments are used to increase the student's familiarity with gravitational, electromagnetic and nuclear forces in nature. Applications include biological, geophysical, medical and environmental phenomena. Satisfies GE, category B1 or B3 (Physical Sciences) and GE laboratory requirements. Prerequisite: previous or concurrent enrollment in PHYS 114.

## PHYS 209A General Physics Laboratory (1)

Laboratory, 3 hours. Laboratory experiments to accompany PHYS 210A and develop the student's ability to perform measurements of physical phenomena and to increase their appreciation of the sense of the physical universe gained through experimentation. 209A satisfies GE, category B1 or B3 (Physical Sciences) and GE laboratory requirements. Prerequisites: high school algebra and trigonometry and a high school physical science and previous or concurrent enrollment in PHYS 210A.

## PHYS 209B General Physics Laboratory (1)

Laboratory, 3 hours. Laboratory experiments to accompany PHYS 210B and develop the student's ability to perform measurements of physical phenomena and to increase their appreciation of the sense of the physical universe gained through experimentation. Prerequisites: 209A and previous or concurrent enrollment in 210B.

## PHYS 210A General Physics (3)

Lecture, 3 hours. A basic course in physics for students majoring in biology, geology or preprofessional programs. Fundamentals of kinematics, Newton's laws, work, momentum, harmonic motion, and an introduction to fluids and concepts of temperature. Registration by mathematics majors requires Physics and Astronomy Department approval. 210A satisfies GE, category B1 or B3 (Physical Sciences) requirement. Prerequisites: high school algebra and trigonometry or MATH 107.

## PHYS 210B General Physics (3)

Lecture, 3 hours. A basic course in physics for students majoring in biology, geology or preprofessional programs. Topics include: electric charges, potentials, fields and currents, magnetism, electromagnetic waves, and optics. Registration by mathematics majors requires Physics and Astronomy Department approval. Prerequisites: 210A.

PHYS 214 Introduction to Physics II (4)
Lecture, 4 hours. The continuation of PHYS 114. Electrostatics, quasistatic fields and currents, magnetostatics; electromagnetic induction; waves; physical and geometric optics. Prerequisites: PHYS 114; previous or concurrent enrollment in MATH 211.

PHYS 216 Introductory Laboratory (1)
Laboratory, 3 hours. Selected experiments to increase the student's working physical knowledge of the natural world. Prerequisites: PHYS 114 and 116. Concurrent enrollment in PHYS 214 is strongly recommended.

## PHYS 300 Physics of Music (3)

Lecture, 3 hours. Introduction to physical principles encountered in the study of music; applicable laws of mechanics and acoustics; harmonic analysis; musical scales; sound production in musical instruments; elements of electronic music.

## PHYS 313 Electronics (3)

Lecture, 3 hours. A comprehensive review of DC and AC circuit theory, applications of diodes, transistors and operational amplifiers, electronic test instruments; electronic transducers; waveform generators; noise; logic gates and Boolean algebra; number systems and codes; combinational logic circuits; applications of circuit simulation programs. Concurrent enrollment in PHYS 313L is mandatory. Prerequisites: MATH 107, PHYS 210B or 214; or consent of instructor.

## PHYS 313 Electronics (3)

Lecture, 3 hours. A comprehensive review of DC and AC circuit theory, applications of diodes, transistors and operational amplifiers, electronic test instruments; electronic transducers; waveform generators; noise; logic gates and Boolean algebra; number systems and codes; combinational logic circuits; applications of circuit simulation programs. Concurrent enrollment in PHYS 313L is mandatory. Prerequisites: MATH 107, PHYS 210B or 214; or consent of instructor.

## PHYS 313L Electronics Laboratory (1)

Laboratory, 3 hours. Laboratory to accompany PHYS 313. Experiments in this lab are designed to address the major topics of PHYS 313 lecture course. Students will experiment with physical and simulated circuits. Concurrent enrollment in PHYS 313 is mandatory. Prerequisites: MATH 107, PHYS 209B or 216; or consent of instructor.

## PHYS 313L Electronics Laboratory (1)

Laboratory, 3 hours. Laboratory to accompany PHYS 313. Experiments in this lab are designed to address the major topics of PHYS 313 lecture course. Students will experiment with physical and simulated circuits. Concurrent enrollment in PHYS 313 is mandatory. Prerequisites: MATH 107, PHYS 209B or 216; or consent of instructor.

PHYS 314 Introdcution to Physics III (4)
Lecture, 4 hours. The continuation of PHYS 214. Special relativity; elementary quantum mechanics; the Bohr atom and deBroglie waves; the Schrödinger wave equation with applications to simple one-dimensional problems and to atomic structure; elementary nuclear physics; introduction to equilibrium statistical mechanics; the partition function, Boltzmann statistics. Prerequisites: PHYS 214; previous or concurrent enrollment in MATH 261.

## PHYS 320 Analytical Mechanics (3)

Lecture, 3 hours. This course is an exploration into the principles of Newtonian, Lagrangian, and Hamiltonian mechanics. It also includes a treatment of noninertial reference frames, rigid body rotation, central force problems, and the dynamics of a system of particles. Prerequisites: PHYS 114 and previous or concurrent enrollment in PHYS 325.

PHYS 325 Introduction To Mathematical Physics (3)
Lecture, 3 hours. This course examines advanced mathematical methods and serves as a foundation for future courses. Topics include coordinate systems and vectors; vector calculus; series expansions; differential equations; orthonomal functions; solutions of systems of linear equations; matrices and tensors; complex numbers; eigenvalues and eigenfunctions; Fourier series and Fourier integrals; use of mathematical symbolic processing software. Prerequisites: PHYS 214 and MATH 261 or consent of instructor.

## PHYS 340 Light and Optics (3)

Lecture, 3 hours. An examination of the properties of light from geometric and physical optics perspectives. Topics include: ray optics, refraction, diffraction, coherence, interference, and polarization. The course will present Fermat's principle, Huygens' principle and Fourier optics. Prerequisite: PHYS 314 or 325.

## PHYS 342 Light and Color (3)

Lecture, 3 hours. A descriptive, nonmathematical, but analytical treatment of the physical properties of light, the camera, telescope, microscope and laser; holography, mirages, rainbows and the blue sky; colors in flowers, gems and pigments; human and animal vision and visual perception. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: any physical science course or consent of instructor.

## PHYS 366 Intermediate Experimental Physics (3)

Lecture 2 hours; laboratory 3 hours. An introduction to contemporary techniques and problems in physics. Selected topics in lasers and photonics, materials science (including high-magnetic field measurements and surface analysis using scanning electron and atomic force microscopy), X-ray analysis, applied nuclear physics, adaptive optics. Prerequisites: PHYS 314 and 216, or consent of instructor.

## PHYS 381 Computer Applications for Scientists (2)

Lecture, 1 hour; laboratory, 3 hours. A survey of problem solving techniques including computer modeling and simulation for the physical sciences. The student is introduced to high-level programming languages such as $\mathrm{C}_{++}$and various mathematical tools such as Excel, Mathematica and MatLab. Topics include modern programming techniques, use of graphics and mathematical function libraries, linear least squares data fitting techniques, numerical solution of algebraic and differential equations and error analysis. Prerequisites: PHYS 114 and MATH 211.

## PHYS 395 Community Involvement Program (1-2)

CIP involves students in basic community problems related to physics and astronomy-performing such tasks as tutoring, reading to the blind, service to local, county and state agencies, and service as teacher aides to elementary schools. Students receive 1-2 units, depending on the specific task performed. Not more than 4 CIP units will be applicable to the physics major requirements. May be taken by petition only.

## PHYS 396 Selected Topics in Physics (1-4)

A course of lectures on a single topic or set of related topics not ordinarily covered in the physics curriculum. The course may be repeated for credit with a different topic. Prerequisite: consent of instructor.

## PHYS 430 Electricity and Magnetism (3)

Lecture, 3 hours. An investigation into the fundamentals of electromagnetic theory and its applications. Topics include vector analysis, electrostatics, method of images, magnetostatics, electric currents, electromagnetic induction, electric and magnetic fields in matter, Maxwell's equations, electromagnetic waves, potentials and fields. Prerequisites: PHYS 214 and previous or concurrent enrollment in PHYS 325.

## PHYS 445 Рнотоnics (3)

Lecture, 3 hours. A practical examination of Gaussian beams; guided-wave optics; fiber optics; optical resonators; resonant cavities; laser oscillation and amplification; laser excitation; optical pumping; solid state, gas, dye, chemical, excimer and free electron lasers; semiconductor lasers; laser spectroscopy; fiber optic communication; photomultiplier and semiconductor radiation detectors including photoconductors, junction photodiodes; p-i-n diodes, avalanche photodiodes; detector noise. Prerequisite: PHYS 314 or consent of instructor. (Crosslisted with CES 430 and ES 445).

## PHYS 450 Statistical Physics (2)

Lecture, 2 hours. An introduction to statistical methods. Topics include ideal gas, heat capacities, entropy, enthalpy, the laws of thermodynamics: Boltzmann, Bose and Fermi statistics; applications such as engines and refrigerators. Prerequisite: PHYS 314.

## PHYS 460 Quantum Physics (3)

Lecture, 3 hours. This course examines the Schrödinger equation and its solution for free particles, potential wells, harmonic oscillators, central potentials, and the hydrogen atom. Other topics may include Hilbert space; Hermitian operators; Dirac notation; angular momentum and spin; scattering; wave function symmetry; and elementary perturbation theory. Prerequisites: PHYS 314 and 325.

## PHYS 466 Advanced Experimental Physics (3)

Lecture 2 hours; laboratory 3 hours. Advanced topics in lasers and photonics, materials science (including high-magnetic field measurements and surface analysis using scanning electron and atomic force microscopy), X-ray analysis, applied nuclear physics, adaptive optics. Prerequisites: PHYS 314 and 216, or consent of instructor.

## PHYS 475 Physics of Semiconductor Devices (3)

Lecture, 3 hours. A detailed study of semiconductors and their applications. Topics include semiconductor materials, crystal structure and growth; energy bands and charge carriers, conductivity and mobility; metal-semiconductor and p-n junctions; $\mathrm{p}-\mathrm{n}$ junction diodes, bipolar junction transistors, field-effect transistors, CCDs, photonic devices and integrated circuits. Conductivity and contact resistance measurements; I-V and C-V characteristics of diodes; characterization of transistors. Prerequisite: PHYS 314 or consent of instructor. (Crosslisted with CES 432 and ES 432).

## PHYS 492 Instructional Design Project (2)

A directed project to develop at least one laboratory experiment and/or classroom activity that teaches basic concepts in undergraduate physics. Both written and oral presentations (including a demonstration of the experiment or activity) will be required. Prerequisite: Physics 214 and 216 or Physics 210B and 209B.

## PhYS 493 Senior Design Project (2)

A directed project to develop either a working prototype or a detailed conceptual design for an operational laboratory device. Both written and oral presentations (including a demonstration) will be required. Prerequisites: PHYS 313L. Application form required prior to enrollment.

## PHYS 494 Physics Seminar (1)

A series of lectures on topics of interest in physics, astronomy and related fields. May be repeated for credit up to 3 units maximum. Prerequisite: consent of instructor.

## PHYS 495 Special Studies (1-4)

The Physics and Astronomy Department encourages independent study and considers it to be an educational undertaking. Students wishing to enroll for special studies are required to submit proposals to their supervising faculty members that outline their projects and exhibit concrete plans for their successful completion.

## PHYS 497 Undergraduate Research in Physics (2)

Supervised research in an area of physics that is currently under investigation by one or more members of the Physics and Astronomy Department's faculty. This course may be repeated for up to 6 units of credit. Both written and oral presentations will be required. Prerequisites: junior standing and consent of instructor.

## Political Science (POLS)

POLS 151 Credit by Examination: California Government (1)
The state code requirement in California state and local government may be satisfied by passing an examination in the political science department.

## POLS 199 Media: Contemporary Issues (2)

POLS 200 American Political System (3)
An examination of American politics and governmental institutions. Introduces students to the political system and how to participate in it, should the need arise. Satisfies the code requirements in American Constitution and California state and local government. Satisfies GE, category D4 (U.S. Constitution and State and Local Government).

## POLS 201 Ideas and Institutions (4)

An analysis of the basic political values and their impact on society. Students will be introduced to the relationship between values, ideology and the political process. Political science majors are expected to take this course, which stresses written expression, during their first year in the department. Satisfies GE, category D5 (Contemporary International Perspectives).

## POLS 202 Issues in Modern American Politics (4)

Leaders and issues in American political life considered in relation to major policies and movements, e.g., progressivism, isolationism, the New Deal, containment. Open to majors and minors in political science. Meets code requirements in American Constitution and California state and local government. Satisfies GE, category D4 (U.S. Constitution and State and Local Government).

## POLS 292 Social Science Library Research (1)

A basic introduction to social science library research sources, with special emphasis on political science. Course includes learning library research skills and practice with print resources and electronic sources.

## POLS 302 Social Science Research Methods (4)

Social science research and statistical methods, which includes as a significant component computer-based data analysis using the SPSS (Statistical Package for the Social Sciences) programs. It may include building data files and data analysis using multivariate tables, correlations, and regression techniques in a directed research project. The course includes a two-hour laboratory.

## POLS 303 Introduction to Comparative Government (4)

Reviews the principal concepts and theories of comparative politics, and assesses the institutions that comprise varied systems of government. Concrete examples taken from modern systems will be applied throughout the course. Special attention is focused on the political systems of Britain, France, Japan, Russia and China. Students are assigned research projects on political systems of developing nations.

POLS 304 Introduction to International Relations (4)
An introductory analysis of the dynamics of the international political system, stressing the roles of supranational organizations, internal and external factors in foreign policy formulation by nation-states. Review of traditional and contemporary theories of international interaction.

POLS 304 Introduction to International Relations (4)
An introductory analysis of the dynamics of the international political system, stressing the roles of supranational organizations, internal and external factors in foreign policy formulation by nation-states. Review of traditional and contemporary theories of international interaction.

## POLS 310 Classical Political Thought (2-4)

A comprehensive look at the foundations of Western political thought, with particular attention to the theories of Plato, Aristotle and Thomas Aquinas.

## POLS 311 Modern Political Thought: Machiavelli to Bush (4)

 Examination of the major writings from Machiavelli to the present. Emphasis on original sources and development of student opinions on ideas discussed.
## POLS 312 American Political Thought (4)

An examination of the development of American political ideas as reflected in the works and careers of representative writers and political leaders.

## POLS 313 Critical Theory: Race and Gender (4)

Using race and gender as analytical tools, we investigate how major authors in the field such as "deconstruct" concepts such as rights, democracy, the autonomous individual, and freedom. We will evaluate the central proposition of critical theory that these political principles have been used to "disguise" disparities in power and resources in this country. The ultimate question students will answer, is how useful critical theory in reevaluating our political values as we face an increasingly diverse and interdependent world.

## POLS 315 Democracy, Capitalism, and Socialism (3-4)

Examination of the major ideas of important theorists about the relationships among democracy, capitalism and socialism. A consideration of the actual strengths and shortcomings of some of the current world's major political/economic systems that attempt to put these ideas into practice. Satisfies GE, category D5 (Contemporary International Perspectives).

## POLS 320 State, City and County Government (4)

An introductory study of the political structure and process at the state, county and municipal levels, with emphasis on urban and regional problems. The changing relationships between the state and federal governments will be explored. Political decision making at all three levels will be discussed in depth. Satisfies, by petition, the state code requirement in California state and local government. Can be used to fulfill prerequisite courses for M.P.A. program for structure of state and local government agencies, as well as the political science requirement for the California cultural studies major.

## POLS 330 Race, Ethnicity, and Politics (4)

A survey of the unique impact of race and ethnicity on American politics, including analysis of constitutional, legal, and historical factors affecting the status of persons of color. Attention to the role race and ethnicity play in the media, elections, political participation and representation, public opinion, public policy and popular culture.

## POLS 345 Model United Nations (MUN) (4)

Introduction to the political structure and functions of the United Nations, with emphasis on team participation at the Western MUN or National MUN in New York. Students play decision-maker roles that they research for preparation of position papers on agenda items.

## POLS 350 European Parliamentary Democracies (4)

The theory and practice of democratic government in Britain, France and Germany. Using the United States as a basis for comparison, the course will consider the many important variations in the ways parties, parliaments, bureaucracies and executives have developed and perform in the European political arena.

POLS 351 Politics of Russia (4)
The political evolution of Russia in the post-Soviet era. Evaluation of Russian political institutions and political culture. Appraisal of the most significant problems affecting democratic transition. Review of Soviet political traditions.

## POLS 352 Politics of Eastern Europe (4)

The political development of the East European nations from the interwar period to the present. Special attention is paid to the problems and prospects for democratic transition in the region, with particular concentration on Hungary, the Czech Republic, Poland and the former Republics of Yugoslavia.

## POLS 354 Comparative Political Parties (4)

A comparative approach to the structure and dynamics of political parties, party systems and electoral law. The course will consider parties and their impact on the political process in the United States, Europe and selected cases in other global areas.

## POLS 390 Special Topics (1-4)

A seminar lecture series on a specific theme or topic presented by members of the department, other SSU faculty, and guest speakers. May be audited or taken for credit.

## POLS 391 Gender and Politics (4)

This course explores how gender is used to interpret American politics. Major works in the field are used to investigate the explanatory power of gender as an analytic category. Specific topics include the Constitution, elections, the media, social movements, race, sexuality, and comparative issues. How these aspects of American politics affect, and are affected by, men and women, will be addressed.

## POLS 406 Interdisciplinary Seminar (1-4)

POLS 415 Explorations in Political Theory (3-4)
A seminar dealing with selected topics in political theory, including contemporary theories of the political system, the political novel, revolutionary theorists and socialist theory. A different area of emphasis will be offered each year. Consult Schedule of Classes for current offering. May be repeated for credit.

## POLS 420 American Political Development (4)

The development of American Political institutions including the Congress, the Presidency, the Political Party System, the Public Bureaucracy and Federalism over time from the early years of the republic to the present. Emphasis will be upon explaining stability, critical junctures and political change on those institutions understood from a development perspective.

POLS 421 Federal and Intergovernmental Relations (3-4) This course examines how the different levels of government interact in the creation and implementation of public policies at the federal, state and local levels. The class provides students with an understanding of the theory and reality of federalism in the American political system. Can be used to fulfill prerequisite course for M.P.A. program for intergovernmental relations.

POLS 423 Introduction to Constitutional Law (4) Judicial interpretation of the Constitution, with particular emphasis upon separation of powers, presidential powers, relationship between state and national government control of interstate commerce, and jurisdiction of the courts. Crosslisted as CCJS 404.

## POLS 424 The Bill of Rights, Civil Liberties, and the

 Constitution (4)Judicial interpretation of the Constitution in the areas of civil liberties, freedom of speech, freedom of religion, rights of persons accused of crimes, citizenship and the government's responsibility to protect persons from discrimination. Crosslisted as CCJS 489.

## POLS 425 The American Party System (4)

An examination of political parties in the American system. Comparison with party systems in other democratic countries, Independent voters, third parties, proposed reforms and the nature of the electorate. Satisfies, with Political Science department chair's signature, the state code requirement in U.S. constitution and California state and local government.

## POLS 426 The Legislative Process (4)

An examination of the organization and operation of the American Congress. For comparative purposes, legislatures in selected American states and Western European democracies will be briefly considered. Satisfies, with Political Science department chair's signature, the state code requirement in U.S. Constitution and California state and local government.

## POLS 427 The American Presidency (4)

An examination of the place of the Presidency in the American governmental system. Emphasis will be placed upon the interplay between the president and other elements of the system, particularly the Congress, the bureaucracy and the media. Satisfies, with Political Science department chair's signature, the state code requirements in U.S. Constitution and California state and local government .

## POLS 428 Seminar in California Politics and Government (4)

 Analysis of the California political system. Attention is given to governmental institutions, but primary emphasis is upon parties, interest groups, public opinion, ideologies and leadership. Satisfies, with Political Science department chair's signature, the state code requirement in U.S. Constitution and California state and local government. Can be used to fulfill prerequisite courses for M.P.A. program for structure of state and local government agencies, as well as the political science requirement for the California Cultural Studies major.
## POLS 429 Interest Groups (4)

The role of interest groups in the American policy-making process. Group formation, the influence of money and P.A.C.s on election outcomes and lobbying reform. Satisfies, with Political Science department chair's signature, the state code requirement in U.S. constitution and California state and local government.

## POLS 430 Introduction to Public Administration (4)

An introduction to the field of public administration, with emphasis upon bureaucratic life, leadership and decision making. Cross-listed as CCJS 365.

## POLS 431 Politics and the Media (4)

The role of the mass media in American political life. Emphasis on television, news magazines, major newspapers and political columnists, and their interrelationship with American political institutions.

## POLS 439 Political Science Internship (1-6)

Field experience in city, county, state and federal agencies. May be repeated three times for credit. Note that no more than a total of 6 internship and special studies units may be counted in the 40-unit major. Prerequisite: prior arrangement with a faculty member.

POLS 444 United States Foreign Policy (4)
An analysis of the forces, governmental and nongovernmental, that influence the formulation of U.S. foreign policy. An examination of the organizational structure charged with the formulation and execution of that policy, as well as the content of policy since World War II.

## POLS 445 International Organizations (4)

An analysis of the theories and concepts guiding the study of international organizations, followed by an examination of the United Nations, the European Union, NATO, the WTO and other financial institutions, and various non-governmental organizations.

POLS 446 International Relations of the Middle East: Israel, the Palestinians and the United States (4)
An examination of the evolution of the Palestinian-Israeli conflict with an emphasis on how regional and world power factors have affected, and been affected by, this conflict. The course will cover the historical background of modern European imperialism, the nature and character of the Palestine Mandate period, followed by discussion of the creation of the state of Israel in 1948 and the simultaneous emergence of the Palestinian Problem. The 1956, 1967 and 1973 Arab-Israeli wars and their relation to the rise of the Palestinian Resistance Movement will then be covered, followed by an analysis of the "peace process" of the 1990s and its breakdown.

POLS 447 Nonviolent Strategies in International Relations (4) The use of force is often considered to be the most effective form of power, yet nonviolent strategies of action can, in many cases, provide more efficient and successful means to achieve one's goals than the ultima ratio of violence. Those who rely on "just war theory" to advocate for the necessity of war should note that in the 20th century (and early 21st century), nonviolent forms of resistance to oppressive authority generated more profound social and political transformations than violence. Most recently, direct nonviolent action has helped facilitate democratic transitions and is proving to be the most promising means to bring justice and overcome oppression in current struggles in Burma, Egypt, Iran, Iraq, Western Sahara, Zimbabwe, and Belarus. This course will draw on a range of literature, theory and case studies in international relations to examine these and other questions: " When is nonviolence a preferable alternative, both ethically and strategically?", "How does the regime context (e.g., open society vs. dictatorship) influence the menu of nonviolent options?", "Why have some nonviolent movements been successful while others have failed?", "What insights does the application of nonviolent action provide to the global community?"

## POLS 448 Political Violence, Terrorism, and Law (4)

An examination of political violence, terrorism, and legal structures affecting management of conflict. Includes introduction to scientific methodologies used to study political violence and both current and historical conflicts. Course learning objectives include: gaining an understanding of social science conceptions of "terrorism" and "political violence"; increasing knowledge of terrorism actors, motivations, organizations, and forces that mark the use of violence for political gain; gaining knowledge of the historical epochs of political violence and the controversies that result from a response by targeted nations and actors; Creating, examining, analyzing theories and concepts that inform our understanding of legal structures, terrorism and political violence.

## POLS 450 Politics of Asia (4)

A comparative analysis of the political development of Asia. After a review of the legacy of colonialism and those theories related to economic development and democratic transition, this course will examine the political systems of selected countries in the region.

## POLS 452 Third World Political Systems (4)

A comparative analysis of politics and political development of Third World countries. International and domestic obstacles to modernization will be studied. The general analysis will be supplemented by an intensive scrutiny of selected countries and regions.

## POLS 453 Politics of Latin America (4)

A comparative analysis of the political development of Latin America. After a review of the major theories related to economic development, revolution and democratic transition, this course will compare the political systems of selected countries in the region.

## POLS 458 Comparative Social Policy (4)

Comparative analysis of social policies in advanced industrial democracies. The course will look at relationships between politics, political culture, and public policy.

## POLS 466 Political Psychology (4)

An examination of the psychological sources of political leadership and decision making. A study of the roots of political belief and extremism, as well as the acquisition of civic outlook in childhood and adolescence.

## POLS 475 Urban Politics and Policy (4)

Examination of the structure and process of urban and regional governments within the context of state sovereignty. Such aspects of local government, in both large and small urban areas, as planning, bureaucratic administration, social services, economic issues, the political policy making process and civil rights will be discussed in depth.

## POLS 481 Politics of Regulation and Land Use (3-4)

An examination of regulatory policies as they affect business and land use decisions in the United States. Structural, legal and procedural aspects of the regulatory process are explored along with reform and deregulation. Explores the economic, environmental and political consequences of land use control.

## POLS 483 Politics of Wealth and Poverty (4)

Course focuses upon conditions and causes of poverty, wealth and income inequality in the U.S. and the variety of economic, social, governmental, and political responses that have occurred in recent decades. Of particular concern are the role of the government?s income redistribution and social programs, and the function of values, political interest groups and social science findings in shaping these policies.

## POLS 484 Elections and Voter Behavior (4)

Course examines the impact of the new styles and techniques of political campaigning on both the public decision-making process and control over public policy. Modern techniques of analysis and voter manipulation are discussed, along with the characteristics and behavior of the electorate and their historical patterns of political participation.

## POLS 485 Political Power and Social Isolation (4)

The course explores a wide variety of personal, social and political meanings of community; including the decline of social and civic participation, political powerlessness, and theories of social fragmentation and political change. Recent theories link both economic development and community improvement to an ability to increase levels of "social capital". Given its focus, this course will be of particular interest to those concerned with these policy areas, or with a general discussion of the societal milieu of politics and government.

POLS 486 Selected Issues: International Politics (3-4)
An examination of current topics and developments in global politics, such as regional conflicts, North-South issues, economic interdependence and environmental issues. Title varies to reflect specific content each semester.

## POLS 487 Selected Topics in Comparative Politics (4)

Focus on dynamic political issues and developments in selected regions.

## POLS 494 Selected Topics in Politcal Science (1-4)

POLS 495 Special Studies in Political Science (1-4)
A student may be invited by a faculty member to participate in a continuing research project under the faculty member's direction. The research may extend for more than a single semester. Seniors who participate in this course may have their work considered for graduation with honors. This course may be repeated for credit. Note that no more than a total of 6 special studies and internship units may be counted toward the 40-unit major.

## POLS 498 Senior Seminar (4)

An opportunity for senior majors and graduate students to integrate their basic understanding of political science by exploring the interrelationship between the substantive subfields, basic concepts and the major modes of analysis current in political science today. All Political Science majors must take POLS 302 prior to enrolling in POLS 498.

## POLS 501 The Administrative State (4)

This core course examines a variety of public administration literature, including aspects of organizational structure, group behavior and policy studies. Special attention will focus upon specific topics within the field: organizational behavior, power, leadership, personnel, control and administrative responsibility and discretion.

## POLS 502 Organizational Theory and Analysis (4)

 Presents basic analytic tools that can be used in diagnosing political and organizational situations. The nature and use of influence, strategic thinking and bargaining in organizations.
## POLS 503 Budget and Fiscal Administration (2)

An examination of the budgeting process with emphasis upon theories and politics of budgeting, and budgeting process reform. Required for all MPA students.

## POLS 503A Public Finance (2)

An examination of applied issues in public budgeting and fiscal management. Public policy formation and evaluation of results as revealed in the budget will be explored. Required for public management track students.

## POLS 503B Fiscal Management of Non-Profit Agencies (2)

 An examination of applied issues in non-profit budgeting and fiscal management. Fund accounting, cash flow analysis, expenditure control, long-range financial planning, audits, grants and contracts in non-profit agencies are studied. Required for non-profit track students.
## POlS 504A Human Resources for the Public Sector (2)

The evolving character of public personnel administration in the United States will be considered. Topics include civil service, personnel management, work life in organizations, employee participation, diversity, labor-management relations, and the relationship of public personnel to democracy.

## POLS 504B Personnel Administration for Non-Profit

 Organizations (2)Examination of current issues in the management of employees and volunteers in non-profit organizations. Topics include board-staff relations, staff recruitment, selection, training and management, staff development, performance evaluation of paid and unpaid staff, labor-management relations, diversity, and compliance with state/federal regulations.

## POLS 505 Research Methods (4)

Lecture and laboratory. An examination of quantitative research techniques required by agency and program managers. Course includes work in data analysis, introduction to computer usage, techniques of needs assessment and program evaluation, and use of simple analytic models.

## POLS 506 Public Policy Process (4)

The course will look at the public policy making process with emphasis on the role of ideas and analysis. Agenda setting, implementation, policy and design will be discussed.

## POLS 507 Ethics in Administration (4)

A seminar designed to help public administrators cultivate an awareness of ethical dilemmas, develop ways of conceptualizing them, and practice ways of thinking about their resolution.

## POLS 508 Public Policy (4)

A comparison of selected social policies in North America and western Europe, with emphasis on explaining the national differences in policy content in such areas as education, environment and aging policy.

## POLS 509 Politics of Health Care and Aging (4)

The course will be an examination of health care and aging policy in the United States. Comparisons with policy in several other democracies will be included. Also included will be a look at policies such as Medicare and the Older Americans Act, as well as the politics of these and others. Crosslisted as GERN 561.

## POLS 509 Politics of Health Care and Aging (4)

The course will be an examination of health care and aging policy in the United States. Comparisons with policy in several other democracies will be included. Also included will be a look at policies such as Medicare and the Older Americans Act, as well as the politics of these and others. Crosslisted as GERN 561.

## POLS 511 Labor Relations (2)

A course that looks at the historical and current development in labor relations in both the public sector and also in the not-for-profit sector. The course looks at changing concepts and their implications for the existing institutions, processes and values for both sectors of the economy.

## POLS 512 Organizational Development (4)

An exploration of values, methodologies, strategies and theories of organization development.

## POLS 513 Leadership and Supvervision (4)

Examines the role of leader and of leadership in administrative agencies, together with an examination of techniques of supervision and administrative control.

## POLS 537 Bargaining, Politics and Administration (4)

 An examination of the politics of administration, with an emphasis on the dynamics of budgeting and interagency conflict. Of special interest in this course will be the focus on new theories of decremental budgeting ~ budgeting and political coalition building in an era of decreasing resources.POLS 538 Administrative Law (2-4)
Introduction to the legal process within the framework of administrative agencies and procedures. The function of administrative law, including the role of legal agencies, delegation of powers, administrative procedures and statutes, and development of the current body of case law.

## POLS 539 Program Implementation (4)

Focuses upon the critical movement from statute or authorization to an actual functioning program. The course will concentrate primarily on a series of case studies involving human services, environmental, economic development, and criminal justice programs at the federal, state and local levels.

## POLS 550 Planning and Evaluation (4)

Techniques of administrative analysis and program evaluation. Included are examinations of techniques for assessment of policy impact and effectiveness, analysis of program objectives, evaluation methodologies, and the administration of evaluation systems. Prerequisite: Political Science Graduate Students and completion of POLS 505.

## POLS 551 Organizational Computer Usage (4)

An investigation of contemporary developments in the area of information systems, this course views computer usage from the organizational rather than data processing perspective. Central areas of concern are organizational planning and change, and the development of information systems that meet the planning challenge.

## POLS 560 Special Issues in Public Policy (4)

An examination of selected issues in public policy/public affairs. Specific topics will be offered on the bases of student interest and current issue development.

## POLS 564 Aging Services Administration (4)

For individuals interested in careers in the administration of health care; residential and social services for the elderly. An introduction to the field of long-term care administration through the use of lectures and structured case studies. Specifically addresses management decision making in the operation of skilled nursing facilities, congregate care facilities, day care, home health care and retirement communities. Open to undergraduates. No prerequisites.

## POLS 578 Project Continuation (1-3)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master?s degree. Prerequisite: permission of the graduate coordinator. Cr/ NC only.

POLS 580 Nonprofit Dynamics: Politics and Community Environment (2)
Introduction to nonprofits and the environment in which they operate. Analysis of nonprofits role and effectiveness in meeting public and private sector community needs. Topics include organizational models, needs assessment and asset mapping, and trends in intra-sector and cross sector partnerships. Required for all MPA students.

POLS 581 Nonprofit Governance and Legal Issues (2) Examination of the historical development of the non-profit sector, its changing social contract, and critical legal/tax issues. Topics include board governance, mission, start up, life cycles, executive director-board-staff relationships, legal status, fiscal sponsorship, and IRS status and rulings.

## POLS 582 Planning and Nonprofit Agencies (2)

This course addresses techniques of strategic and operational planning appropriate to nonprofit agency operation. Topics include needs and service assessment, marketing analysis, program evaluation, organization development and strategic management techniques.

## POLS 583 Resource Development for Non-Profit Agencies (4)

 Course focus is on the techniques and importance of developing and implementing a comprehensive organizational resource development plan for funding, volunteers and donations, as well as ensuring a diversified agency revenue base. In addition, the course covers fund-raising, major donor development, as well as the legal restrictions for nonprofit agencies and the funding criteria used by corporate, community and private foundation funding sources.
## POLS 585 Marketing and Public Relations for Nonprofit

 Agencies (2)An examination of the role of marketing and public relations for nonprofit agencies, together with techniques for designing and implementing realistic marketing and public relations programs. Course will stress adaptation of marketing techniques to not-for-profit organizations, and will explore the types of access to press, electronic and other media available to nonprofits. Course restricted to Political Science Graduates only.

## POLS 587 Grant Writing and Administration (2)

Focus upon full process of prospect research, proposal development, application, and contract management and administration of foundation, government, and corporate grants.

## POLS 588 Issues in Nonprofit Administration (4)

An investigation of current issues and developments in the operation of nonprofit agencies.

POLS 595 Special Studies in Political Science (1-4)
A student may be invited by a faculty member to participate in a continuing research project under the faculty member's direction. The research may extend for more than a single semester. May be repeated for credit.

## POLS 596 Graduate Tutorial - Exam (4)

An independent, intensive review of the literature in specific areas of concentration, in Public Administration to include the MPA Core and Track course materials. Prerequisite materials to be included in this review. Prerequisite: completion of all master's degree requirements.

## POLS 597 Graduate Internship (1-4)

Intensive field experience in a public or private agency. The student must define a current political problem and a discipline-related strategy for dealing with the problem, and work toward implementing the strategy. $\mathrm{Cr} / \mathrm{NC}$ only.

## POLS 599 Master's Thesis (2-4)

Prerequisite: submission of an authorized Advancement to Candidacy form.

## Psychology (PSY)

## PSY 201 Human Potential (3-4)

Concepts and skills useful for increasing self-understanding and interpersonal effectiveness.

## PSY 250 Introduction to Psychology (3)

Theories, research and applications that constitute psychology. An important goal is to help students become informed consumers of psychological knowledge. Prerequisite to upper division courses in the major for students who enter Sonoma State University as first-time freshmen and students who transfer into psychology from other majors at Sonoma State. Satisfies GE, category D1 (Individual and Society).

## PSY 260 Sexual Identities (3)

Explores lesbian, gay, bisexual and transgendered identifies across the lifespan. Topics include the complexities of sexual identity, the coming out process, relational development, and LGBT communities.

## PSY 290 Special Topics (1-4)

One or more psychological topics are selected for study in depth. Consult the schedule of classes for topics to be studied and current unit offering. May be repeated for credit.

## PSY 299 Student Instructed Course (1-3)

Each Student-instructed Course is designed by an advanced student under the guidance of a faculty sponsor. Each course proposal is carefully reviewed by the department Executive Committee before approval is granted. Consult the Schedule of Classes for the topic studied. Only two SICs may be credited toward the psychology major. Cr/NC only.

## PSY 302 Life Span Development (3)

A multidisciplinary examination of the social, cultural, emotional, and physical development of the human being. Shows how research and theories relate to and assist individuals in their own self-development. Satisfies upper-division GE, category E (The Integrated Person).

## PSY 303 The Person in Society (3)

How humans behave, think and feel in interpersonal relationships, families, workplaces, communities and natural environments. How each of these social contexts affects the way people behave in the others. Interrelationships with larger political and economic variables are explored, drawing from other disciplines that offer relevant insights and knowledge. Satisfies GE, category D1 (Individual and Society).

## PSY 304 Sibling Relationships (4)

An exploration of the role of siblings in personal and family development, with a focus on sibling relationships in adulthood and later life. An emphasis will be placed on the psycho-social context of the sibling relationship in addition to theories of the psychology of the individual. Crosslisted with GERN 304.

## PSY 306 History of Modern Psychology (4)

Part I of a year-long course that presents perspectives on the field of psychology. Includes past and present understandings of human experience, integrating issues and controversies. The first semester includes epistemology, traditional scientific and clinical methodologies, and behavioral, psychoanalytic, and Gestalt psychologies. Prerequisites: PSY 250, ENGL 101, PHIL 101, admission to the psychology major or consent of instructor, and sophomore standing.

## PSY 307 Humanistic, Existential and Transpersonal

 Psychology (4)Part II of this series continues with theories, methods, and research in humanistic, existential, and transpersonal psychology. Prerequisite: PSY 306 or consent of instructor.

## PSY 311 Psychology Dialogue Series (1-2)

A lecture series that explores careers and topics of interest to psychologists. Practitioners in diverse fields of psychology are invited to speak on the nature of their work, current social and political trends in psychological practice, and their view of the future of psychology. Cr/NC only.

## PSY 312 Adult Development Lecture Series (2)

Lectures and presentations on thematic issues in the field of adult development and aging. Speakers are drawn from local community programs, Bay Area research organizations, and academic disciplines. May be repeated for credit. Crosslisted with GERN 312.

## PSY 313 Careers in Psychology (2-4)

Offers students an opportunity to explore and discover their values, skills, interests, lifestyle preferences, and the undertaking of the personal strategies necessary to formulate career paths and alternatives.

## PSY 322 Myth, Dream and Symbol (3-4)

Exploration of the creative unconscious in individual growth. Myths, dreams and symbols are explored from the standpoint of theory, symbolic work, art process, guided meditation, and group process. Approaches vary by instructor and may draw from texts by Jung, Campbell, Johnson, Hillman, Edinger, Singer and others. Prerequisite: junior standing.

## PSY 324 Learning Moments (1)

A series of presentations from individuals from all areas of the university, focused on their own personal moments of significant learning. May be repeated once for credit. Cr/NC only.

## PSY 326 Social Psychology (4)

Introduces relationships between self and society, including the formation and change of attitudes and values, interaction and interpersonal dynamics, and the cultural influences on them. Topics include: symbolic interactionism, personal and social identities, motivation, prejudice and the consequences of ethnicity, class, and gender. Crosslisted with SOCI 326. Satisfies GE D1 (Individual and Society).

## PSY 326 Social Psychology (4)

Introduces relationships between self and society, including the formation and change of attitudes and values, interaction and interpersonal dynamics, and the cultural influences on them. Topics include: symbolic interactionism, personal and social identities, motivation, prejudice and the consequences of ethnicity, class, and gender. Crosslisted with SOCI 326. Satisfies GE D1 (Individual and Society).

## PSY 327 Psychology of Organizations (4)

Applies social science methods and principles to organizational behavior. Topics include: teams in organizations, motivation, individual differences, attitudes and emotions relevant to work, stress and well-being, fairness and diversity within organizations, leadership and organizational change. The goal of organizational psychology is to maximize both employee well-being and organizational effectiveness. Prerequisite: PSY 250, PSY 380 or permission from the instructor.

PSY 328 Cross-cultural Psychology (4)
Didactic and experiential in nature, this course introduces students to the field of multicultural psychology as it pertains to concepts, issues, professional practice, and research. The focus is on self-exploration and understanding one's worldview regarding race, ethnicity, culture, gender, sexual orientation, age, and disability.
Students reflect on the psychological and social implications of prejudice, racism, oppression, and discrimination on identity development, and social justice issues in a multicultural society like the United States.

## PSY 329 Group Process (3-4)

The use of the small group as a basis for understanding the individual, the individual's relationship to others, and the individual in group behavior. This class is normally conducted as an encounter group, with supplementary readings and written work. Prerequisites: Admission to the Psychology major and junior standing. Cr/NC only.

## PSY 330 Stereotyping and Prejudice (4)

Review of Social psychological theory and research examining stereotyping, prejudice, bias, discrimination and status.

PSY 335 Memoir and Autobiography (3-4)
Storytelling and the storied nature of human experience, in research, counseling, therapy, and history. Uses methodology from psychology, literature, and other branches of the social sciences and humanities. Includes biography and autobiography, interview, and students' own oral and written narratives.

## PSY 338 Psychology of Creativity (4)

The study of creative people, processes, and environments. Current and historical theory and research on creativity in personal and professional situations, humanities, science, business, education, and everyday life. Emphasis on individual and group projects. Service-learning course.

## PSY 342 The Psychology of Meditation (4)

An exploration of meditative practice as a means of developing awareness, self-growth and psychological insight. Basic instruction in various meditation techniques, actual meditation practice, readings and discussions of the psychodynamics of meditation. Cr/NC only.

## PSY 352 Psychology of Yoga (3-4)

Unification of mind and body through the practice of Yoga. An introduction to the literature and practice of Yoga. The course normally includes separate lecture and practice sessions. May be repeated once for credit.

## PSY 358 Health Psychology (3-4)

Focuses on the relationship between the body and the mind in physical health, psychological well being, and personal growth. Students learn to: (1) critically evaluate empirical research reports and popular claims about mind-body practices; (2) develop an individualized long-term mind-body practice that can be used to promote health, well-being, and personal growth; and (3) apply psychological principles and strategies for helping others adopt and maintain health and wellness promoting mind-body practices. Prerequisites: Admission to the Psychology major and junior standing.

## PSY 360 Peak Performance Psychology (4)

Focuses on the mental training techniques used by the most successful women and men around the world to enhance performance at work, in sport, and in life. This highly practical course will teach you how to create the optimal mental state necessary for success and happiness in almost any endeavor. Students learn how to increase concentration, overcome fatigue, create positive emotions, build confidence, and effectively master the mental, emotional, and physical challenges of school, work, sport, and life. This course is for students who wish to learn how to perform at their full potential with poise, calm, and grace. Includes readings, lectures, discussions, presenting to peers, participation in a mental skills training program, and practicing the mind-body arts of Tai Chi and Qigong. Prerequisites: Admission to the Psychology major and junior standing.

## PSY 362 Human Sexuality (4)

Covers the biological, social, developmental (across the life span), behavioral, and cultural dimensions of human sexuality. Examples of issues that will be addressed in the class include: intimacy, sexual expression, gender identity, sexual education, sex and the media, and sexual practices across cultures.

## PSY 380 Psychological Research Methods (4)

Introduction to the variety of ways psychologists collect research evidence. Students will be asked to try different research methods - conduct interviews, observe behaviors, write an attitude scale and design an experiment. Upon completing this course, students should be able to understand and critically evaluate major research methods in psychology and the social sciences. Prerequisite: PSY 250 and admission to the psychology major.

## PSY 398 Student-Instructed Course (1-3)

Each student-instructed course is designed by an advanced student under the guidance of a faculty sponsor. Each course proposal is carefully reviewed by the department executive committee before approval is granted. Consult the Schedule of Classes for the topic studied. Only two SICs may be credited toward the psychology major. Cr/NC only.

## PSY 399 Graduate Student-Instructed Course (1-3)

Each graduate student-instructed course is designed by an advanced student under the guidance of a faculty sponsor. Each course proposal is carefully reviewed by the department Executive Committee before approval is granted. Consult the Schedule of Classes for the topic studied. Only two SICs may be credited toward the psychology major.

## PSY 404 Psychology of Women (3-4)

Examines women's development and women's place in the world from a psychological perspective. Material is drawn from contemporary research and thinking, Iongitudinal studies, case studies, personal narratives, and story. Prerequisite: junior standing. Crosslisted with WGS 330.

## PSY 405 The Psychology of Gender (4)

Explores gender through a social psychological perspective. Topics include gender socialization, the structure and junction of gender stereotypes, masculinity, and gender discrimination.

## PSY 408 Transitions in Adult Development (4)

This course explores how women and men experience and shape the transitions that occur as they mature socially and psychologically. Inquiry includes normative life cycle transitions as well as unexpected, unusual or "off-time" transitions and develops understandings of how these transitions shape the development of an individual through adulthood and later life. Crosslisted as GERN 408. Prerequisite: junior standing.

PSY 409 Social and Emotional Development (4)
This course presents an overview of social-emotional development across the life span. Theory and research will be assessed based on different theoretical models and approaches, including cross-cultural perspectives. Topics included are attachment, moral and personality development, social cognition, gender roles, identity, aggression, achievement and emotions. Prerequisite: PSY 250, PSY 302 or PSY 410.

## PSY 410 Child Development (3-4)

This course introduces students to the social-emotional, cognitive, language, biological, and physical development of children and adolescents. Students learn major developmental theories and current research as applied to relevant issues in today?s society. The role that parents, teachers, communities, and cultures play in the healthy growth and development of children is emphasized. Prerequisites: PSY 250 and junior standing, or consent of instructor.

PSY 411 Behavioral and Emotional Problems of Children (3-4) Study and observation of children with problems, and examination of the environments in which those problems occur. Major diagnostic categories for behavioral and emotional problems of childhood are covered. Prerequisite: junior standing.

## PSY 412 Adolescent Psychology (3-4)

An examination of the social, cognitive and biological theories in adolescent development. Material is drawn from research and personal interaction with adolescents. Prerequisite: junior standing.

## PSY 418 The Psychology of Family (3-4)

A study of the family as a social-psychological group. Considers family of origin, present families and relationships, and parenting. Prerequisite: junior standing.

## PSY 421 Psychology of Aging (4)

Analysis of psychological development as a life-long process, and examination of patterns of adult learning and ways to facilitate it. Exploration of the role of memory for learning and psychological functioning. Includes the study of issues in mental health in adulthood and later life. Crosslisted as GERN 421. Prerequisite: Open to Human Development and Psychology majors and Gerontology minors only.

## PSY 422 Seminar in Living and Dying (3-4)

This course explores personal values and attitudes about life and death and seeks to understand them in relation to our own psychology and to the larger social context. Topics of separation and loss, loss from homicide, near-death experiences, mythology, and immortality will be addressed. Crosslisted as GERN 422.

## PSY 423 Сommunity Psychology (3-4)

The study of community structure and processes in relation to human needs. Includes organizing community action, the role of the individual in social change, theories and strategies of organizing, building alliances, and affecting legislation and policy.

## PSY 425 Abnormal Psychology (4)

The study of the wide spectrum of mental disorders found in the DSM with applications for community mental health, psychotherapy and other helping professions. Prerequisites: PSY 306 and junior standing, or consent of instructor.

## PSY 428 Introduction to Counseling (4)

An examination of the counseling process. Various approaches are considered and methods for the development of component skills presented. Prerequisites: PSY 306 and junior standing. Some sections require admission to the major and consent of instructor.

## PSY 429 Gestalt Process (4)

An experiential-didactic approach to the Gestalt process as developed by Fritz Perls and his associates. Useful both for developing counseling and therapeutic skills and perspectives and for personal growth. May be repeated once for credit.

## PSY 430 Depth Oriented Psychotherapy (4)

This advanced seminar focuses on several modalities used to access the psyche in depth oriented therapies. Dora and Martin Kalff and Sandplay, Jung's Individuation and use of Mandalas and DW Winnicott and his work with relational space will be the focus of this experiential learning forum.

## PSY 431 Introduction To Art Therapy (3-4)

An overview of the field of art therapy, its varied schools of thought, and different possibilities of application~from public school settings to mental hospitals. Information on graduate and professional training in the field. Prerequisite: junior standing.

## PSY 432 Group Work with Older Adults (4)

This service-learning course introduces students to the fundamentals of group work with older adults. The class provides an overview of the phases of group development and basic skills and techniques for facilitating effective groups. Theoretical perspectives from sociology and psychology are used to examine how groups function, the value they have for older adults, and common themes in groups for older adults. To enhance learning, students go to senior sites in the community to co-facilitate weekly intergenerational dialogue groups. Crosslisted with GERN 432 and SOCl 432. Prerequisite: Admission to the major and junior standing.

## PSY 438 Psychological Aspects of Disability (3-4)

This course is designed to give participants a better understanding of people with disabilities and an awareness of how society regards them. The disabilities addressed range from traumatic physical injuries through progressive diseases and conditions to mental retardation, alcoholism and emotional disabilities. The class is appropriate for anyone interested in disability, whether for personal or professional reasons. Crosslisted with GERN 438.

## PSY 440 Community-Based Research (4)

This seminar presents an overview of fundamental concepts, issues, and methods in community based research and applied developmental psychology. Students will design, implement, analyze data, and write the report of research projects following APA format. Research projects should meet ethical and professional standards so they can be submitted to appropriate conferences. Students will also become critical consumers of research with human participants, especially as it refers to underrepresented groups $n$ this country. Prerequisite: MATH 165, PSY 380, or consent of instructor.

## PSY 441 Qualitative Research (4)

Introduces the principles and techniques of qualitative research that are relevant for designing and carrying out psychological research. Topics include phenomenology, action research, grounded theory and discourse analysis. As a class, we will design and conduct a qualitative research project. Prerequisite: PSY 380 or permission of instructor.

## PSY 444 Social Justice and Intergroup Relations (4)

Review of psychological research and theory about social justice and intergroup relations. Topics include the ways in which people define fairness and how these definitions shape personal and business relationships, environmental resource allocation, criminal justice practice and international relations. Prerequisite: PSY 250, PSY 380 or permission from the instructor.

PSY 445 Advanced Research Design and Analysis (4)
Locate and use relevant research and theory to plan, conduct, and interpret the results of a collaboratively designed study. Topics include research ethics, experimental design, survey design and tensions between applied and basic research. Upon completing the course, students should be able to use and evaluate the basic research designs most often employed by psychologists. Prerequisite: PSY 380 or consent of the instructor. Corequisite: PSY 445L.

## PSY 445L Advanced Research Laboratory (2)

Compliments PSY 445 by introducing and reviewing the statistical techniques used by psychologists to analyze quantitative data. Students use what they learn in the class to analyze the data they collect as part of their collaborative research project for PSY 445. Prerequisite: PSY 380 or consent of the instructor. Corequisite: PSY 445.

## PSY 447 Learning and Behavior (3-4)

A study of the learning process including major theories of learning and cognition and their application to problem solving behavior. Includes types of conditioning, stimulus controls and reinforcement, social learning, and cognitive mediaton of emotion and behavior. Prerequisite: PSY 250. Recommended: PSY 306.

## PSY 448 Cognitive Development (4)

This course covers theories and research on cognition from infancy through childhood. Major theorists include Piaget, Vygotsky, Sternberg, Fischer, Case, Bruner, and information-processing perspectives. Special topics include social cognition, theory of mind, concept formation, problem-solving, memory, multiple intelligences, standardized testing, language, and cultural variations. Prerequisite: PSY 302 or 410.

## PSY 450 Physiological Psychology (4)

A study of the relationship between physiological processes and behavior. Particular emphasis on the anatomy and physiology of the nervous system, the effects of metabolic processes, brain lesions, and various drugs on behavior.

## PSY 451 Neural Science and Biopsychology (4-8)

A study of the human and mammalian brain, covering nerve cells and how they work, synapses, neurotransmitters, pharmacology, sexuality, neuroanatomy, neurophysiology, evolution, neuropathology, sleep, language, left brain and right brain, higher consciousness, and much more.

PSY 451L Neural Science and Biopsychology Laboratory (2-4) Demonstrations and exercises that exemplify the methods and subject matter of neuroscience and biopsychology psychology. Corequisite: PSY 451.

## PSY 454 Biofeedback, Somatics and Stress Management (4)

An introduction to biofeedback, somatic psychology, and stress management through the study of human psychophysiology and psychology. Development of familiarity wit the burgeoning research and technology related to health and wellness.

## PSY 456 Biofeedback Practicum (3)

Developes proficiency in the use of biofeedback equipment through simulated training sessions and supervised actual biofeedback training sessions. Case presentation format is used for discussion of issues that emerge in the student's practicum experience. Prerequisite: PSY 454.

## PSY 461 Personality (3-4)

Varied viewpoints are brought to bear in an attempt to conceptualize and understand the process and functioning of human personality. Prerequisite: junior standing.

PSY 462 Seminar in Humanistic and Existential Psychology (4) Historical thinking in humanistic and existential psychology and examination of contemporary directions. Deals with the whole person in relation to his or her environment, from relationships and the family to the community, larger organizations, and the natural environment. Prerequisite: PSY 306 and 307 or consent of instructor.

## PSY 466 Jungian Psychology (4)

Examination of Jung and contemporary Jungian thinkers. Examines developmental aspects of Jungian theory such as individuation, typology, masculine and feminine development, and the transcendent function. Prerequisite: junior standing.

## PSY 471 Psychology of Religion (4)

Explores psychological research and theory on religion religious experience and spirituality. Topics include the link between religion and biology, development, personality, morality and prejudice, health and coping, and violence.

## PSY 472 Transpersonal Psychology (3-4)

Surveys the psychological literature on spiritual, transcendent, and extra-ordinary experiences. Reviews roots of transpersonal psychology in ancient philosophies as well as current applications. Studies dualism and relationship, symbols of transformation, and doorways into the sacred from a psychological perspective.

## PSY 481 Research Internship (1-8)

Students learn applied research methods and practical research skills under the supervision of a faculty mentor. Prerequisite: consent of instructor. A maximum of 12 units of special study and internship credit may be applied to the psychology major. $\mathrm{Cr} / \mathrm{NC}$ only.

## PSY 482 Teaching Internship (1-8)

Students learn the skills of organization and communication of psychological theory and research under the supervision of a faculty mentor. Prerequisites: PSY 306 and 307, and consent of instructor. A maximum of 12 units of special study and internship credit may be applied to the psychology major. $\mathrm{Cr} / \mathrm{NC}$ only.

## PSY 483 Advanced Teaching Internship (1-4)

Advanced skills in teaching internship. A maximum of 12 units of special study and internship credit may be applied to the psychology major. Prerequisites: PSY 306 and 307, and consent of instructor.

## PSY 485 Ecopsychology (4)

This course focuses on psychological aspects of our relationship to the earth. Issues to be addressed include the psychological impact of living in a time of ecological crisis, and the role of psychology in promoting a transition to an ecologically sustainable society. Field trips to be arranged.

## PSY 488 Biofeedback Experience (1)

Participation in personal biofeedback sessions conducted by interns in the biofeedback training sequence. Interns are supervised by a qualified biofeedback practitioner.

## PSY 489 Applied Ecopsychology (4)

 Individual, group, and community practices for healing and deepening our connection with the Earth. Approaches include meditation in nature, wilderness-based rites of passage, sensory awareness practices, and seasonal celebrations. Field trips to be arrange $\mathrm{Cr} / \mathrm{NC}$ only.
## PSY 490 Psychology Seminar (1-4)

Each semester one or more psychological topics is selected for study in depth. Consult Schedule of Classes for topics to be studied and current unit offering. May be repeated for credit.

## PSY 493 Narrative: Theories and Methods (4)

The course examines the role of narrative, or life storying, in human development research. Students develop a protocol, conduct research in the community using interview methodologies appropriate to the narrative perspective, analyze transcriptions for theoretical and life themes, and develop a final project based on the analysis of the data. Cross-listed as GERN 493.

## PSY 494 Counseling Experience (1)

Participation in personal counseling conducted by a graduate student in the counseling M.A. program under the direct supervision of a counseling department faculty member. Students generate a written evaluation of the counseling experience. Students compile a weekly journal and write a summary essay. May be repeated once. Cr/NC only. Prerequisite: instructor Consent.

## PSY 495 Special Studies (1-4)

The psychology department encourages independent study as preparation and practice for life-long self-directed learning. Students should formulate plans for a project and present them to a faculty member for sponsorship. Special forms for this purpose are available in the department office. These should be completed and filed during the add/drop period. Twelve units of Special Study and Internship combined may be credited toward the major. Prerequisite: upper-division psychology major or consent of instructor. Cr/NC only.

## PSY 496 Psychology Tutorial (1-4)

Directed study of a selected psychological topic under the supervision of a faculty member. A plan of study must be developed in consultation with the faculty member prior to registration. Prerequisites: upper-division psychology major and consent of instructor

## PSY 497 Interdisciplinary Seminar (2-4)

Exploration of basic social problems. Resource persons from other disciplines may participate. Themes and topics vary. May be repeated for credit.

## PSY 499 Internship (1-4)

Supervised training and experience for advanced students in community agencies throughout the university service area. Special contracts are required and are obtainable in the department office. Internship assignments may be paid. Priority is given to students who apply during the last month of the preceding semester. Students register for PSY 499 during the add/drop period by submitting a completed contract (not online). Prerequisite: consent of instructor. Cr/NC only. A maximum of 8 units of internship credit may be applied to the psychology major. No more than 4 units of PSY 499 may be earned in one semester.

## PSY 500 Social and Psychological Issues in Aging (3-4)

Selected issues provide exploration of relationships between psychological and social development in later life. Developmental, historical, cultural, psychological and policy perspectives may be offered. Consult Schedule of Classes for specific topic. Crosslisted as GERN 500. Prerequisite: graduate standing or permission of instructor.

## PSY 511A Theories of Depth Psychology (2-4)

A two-semester sequence that examines Jungian, depth, and archetypal psychology. Readings include Jung, Edinger, Hillman, and post-Jungians. Limited to students in the Depth Psychology Program.

## PSY 511B Theories of Depth Psychology (2-4)

A two-semester sequence that examines Jungian, depth, and archetypal psychology. Readings include Jung, Edinger, Hillman, and post-Jungians. Limited to students in the Depth Psychology Program.

## PSY 515 Psychological Writing (1-4)

Advanced instruction in the analysis, organization, style and content of psychological writing, including personal explorations.

## PSY 521A Seminar (1-4)

Seminar instruction in the area indicated on the transcript.

## PSY 521B Seminar (1-4)

Seminar instruction in the area indicated on the transcript.

## PSY 530A Seminar in Interpersonal Process (1-4)

A two-semester sequence in which students apply their knowledge of depth psychology to group process. Students read selected theorists and practitioners, as well as participate in group process interactions within the class. Limited to students in the Depth Psychology Program.

## PSY 530B Seminar in Interpersonal Process (1-4)

 A two-semester sequence in which students apply their knowledge of depth psychology to group process. Students read selected theorists and practitioners, as well as participate in group process interactions within the class. Limited to students in the Depth Psychology Program.PSY 531 Personal/Interpersonal Process (1-4)
Personal psychological process work and/or group process.

## PSY 540A Seminar: Psychological Issues (3-4)

PSY 540B Seminar: Psychological Issues (1-3)

## PSY 541 Professional Training (1-4)

Supervised professional training.

PSY 542A Methods and Applications of Depth Psychology (3-4) A two-semester sequence that surveys the methods and applications used in depth psychological work. Students learn how the symbol contains, mediates, and expresses personal experience. Intensive work with different art forms, dreams, myth, meditation, active imagination, and the body. Students learn conceptual approaches for interpreting symbolic experience. Theory and practice are integrated throughout the course. Limited to students in the Depth Psychology Program.

PSY 542B Methods and Applications of Depth Psychology (3-4) A two-semester sequence that surveys the methods and applications used in depth psychological work. Students learn how the symbol contains, mediates, and expresses personal experience. Intensive work with different art forms, dreams, myth, meditation, active imagination, and the body. Students learn conceptual approaches for interpreting symbolic experience. Theory and practice are integrated throughout the course. Limited to students in the Depth Psychology Program.

## PSY 543A Cross-Cultural Mythology and Symbolism (1-4)

 A two-semester sequence that surveys selected mythological, religious, artistic and cultural symbolic motifs and examines their expression in cultures throughout the world. Earth-based healing traditions and the council process are included. Readings are drawn from depth psychology, mythology, folklore, anthropology, eco-psychology, religion and art history. Limited to students in the Depth Psychology Program.PSY 543B Cross-Cultural Mythology and Symbolism (1-4) A two-semester sequence that surveys selected mythological, religious, artistic and cultural symbolic motifs and examines their expression in cultures throughout the world. Earth-based healing traditions and the council process are included. Readings are drawn from depth psychology, mythology, folklore, anthropology, eco-psychology, religion and art history. Limited to students in the Depth Psychology Program.

## PSY 545C Art Therapy Practices (1-3)

Introductory studies in the use of various art therapy practices, techniques and interventions to develop in-depth personal knowledge and professional expertise in the application of Art Therapy theories and practices with others. Limited to students in the Art Therapy Program. Course may be repeated for credit.

## PSY 551 Directed Reading (1-4)

PSY 555A Integrated Study (1-4)
Integrated study incorporating a variety of modalities.
PSY 555B Integrated Study (1-4)
Integrated study incorporating a variety of modalities.

## PSY 558 Seminar: Human Systems and Social Change (4)

The "human systems" perspective in the context of an information and communications society, as developed by general systems theory, organization development and humanistic-transpersonal psychology. Organizational and societal leadership are explored from perspectives of values, organizational dynamics and cultural/economic/ecological systems.

## PSY 560 Professional Workshop (1-4)

Each semester a particular problem or methodology will be selected for study in depth.

## PSY 561 Research Methods (1-4)

## PSY 566 Biofeedback Practicum (3)

Develops proficiency in the use of biofeedback equipment through simulated training sessions and supervised actual biofeedback training sessions. Case presentation format is used for discussion of issues that emerge in the student?s clinical experience. Prerequisite: PSY 454.

## PSY 570 Directed Field Experience (1-6)

Internship arranged at an approved college, school, hospital, or clinic. Regularly scheduled individual and group meetings with psychology department faculty for consultation regarding field experiences. Prerequisite: consent of instructor.

## PSY 571 Practicum (1-4)

Training and applied skill development.

## PSY 575 Research Seminar (1-4)

Exploration of depth and qualitative research approaches to understanding personal experience. Students learn techniques in depth processes, interviewing, and organic inquiry. Emphasis is on stimulation of students' individual research interests, and the design, conduct, and completion of an individual research study.

## PSY 576 Seminar in Depth Psychology (1-5)

Selected topics in the field of depth psychology. Limited to Depth Psychology students only.

## PSY 578 Project Continuation (1-3)

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. $\mathrm{Cr} /$ NC only.

## PSY 580 Seminar in Teaching Psychology (1-4)

Discussion of theory, methods and materials of teaching psychology. Customary emphasis is on undergraduate college instruction, but may vary according to the needs and interests of participants. Prerequisite: consent of instructor.

## PSY 581A Internship (1-6)

## PSY 581B Internship (1-6)

## PSY 582 Teaching College Psychology (1-8)

Practical experience of supervised teaching in a college psychology classroom. Prerequisite: consent of instructor.

## PSY 583 Graduate Research Assistant (1-4)

Students learn advanced research methods and practical research skills under the supervision of a faculty mentor. Prerequisite: consent of instructor.

## PSY 584 Graduate Teaching Assistant (1-4)

Students learn teaching skills by serving as teaching assistants in undergraduate classes under the supervision of the classroom instructor. Prerequisite: graduate standing; consent of instructor.

## PSY 595 Special Studies (1-4)

Students should formulate plans for a project and present them to a faculty member for sponsorship. Special forms for this purpose are available in the department office. Prerequisite: graduate standing and consent of instructor. $\mathrm{Cr} / \mathrm{NC}$ only.

## PSY 596 Graduate Tutorial (1-4)

Seminar in selected topics. Consult semester class schedule for current offerings.

## PSY 599 Master's Thesis (1-3)

A Master's Thesis or investigative project under the guidance of the thesis chair. Prerequisite: Advancement to Candidacy.

## PSY 599A Master’s Thesis: Project (1-3)

A Master's thesis or investigative project is developed by the student under the guidance of a thesis committee chair. Students develop the research proposal and write thesis introduction, methods, and literature review in the first semester. In the second semester the thesis project is completed. Limited to Depth Psychology students.

## PSY 599B Master’s Thesis: Project (1-3)

A Master's thesis or investigative project is developed by the student under the guidance of a thesis committee chair. Students develop the research proposal and write thesis introduction, methods, and literature review in the first semester. In the second semester the thesis project is completed. Limited to Depth Psychology students.

## Science (SCI)

SCI 150 Introduction to Careers in Hlth Professions (1) Lecture, 1 hour. An introduction to careers and current issues in the health professions. The professions examined generally require a bachelor?s degree before being accepted into a graduate-level health professions program such as medicine, osteopathic medicine, dentistry, veterinary medicine, optometry, pharmacy, physician assistant, podiatry, chiropractic medicine, genetic counseling, hospital administration, public health, clinical laboratory scientist, nursing, physical or occupational therapy, etc. Cr/NC only.

SCI 308 Knowledge and Values in Science (3)

## Sociology (SOCI)

## SOCI 201 Introduction to Sociology (3)

A general overview of the concepts, theories, research methods and findings of sociology. The purpose is to train students to view the world through a sociological perspective. Satisfies GE, category D1 (Individual and Society).

## SOCI 300 Sociological Research Methods (4)

Consideration of the ways in which sociological questions are formulated and answered. Examination of and practice in conceptualization, theory construction deductive and inductive reasoning, and other elements of sociological analysis, with an emphasis upon sociological research methods. Required for majors.

## SOCI 301 Statistics for Sociologists (4)

Introduction to descriptive and inferential statistics for the social sciences. Emphasis on the integration of statistical analysis with sociological approaches to theory, research design, data collection, and presentation of quantitative research. Introduction to statistical analysis software in lab setting. Recommended for majors. Grade only.

## SOCI 305 Perspectives on the Holocaust and Genocide (4)

 A weekly lecture series on the Holocaust, genocide and human rights. Guest lecturers and SSU faculty provide a variety of sociological and interdisciplinary perspectives on the topics. The course explores the intellectual, emotional, and ethical aspects of the Holocaust and seeks to deepen students' understanding of organized society, political leadership, democratic participation and human nature. Students also attend a weekly discussion group to explore and synthesize information presented in the weekly lectures. Requirements include written position, midterm and final papers. Prerequisite: upper division standing. Satisfies upper-division GE, category D5, (Contemporary International Perspectives).
## SOCI 306 Careers in Sociology (4)

How to identify and locate liberal arts jobs in government, business, private institutions, or self-employment. Choosing a career, job-hunting skills and techniques, and keeping a job. Study of such work-related issues as dual-career families, equal opportunity and professionalism.

## SOCI 312 Sociology of Gender (4)

Considers gender as a social construction and a product of social life. Analyzes how gender inequalities shape social structures, institutions and interaction for both women and men. Challenges biological explanations for gender differences and inequalities. Focuses on analysis of gendered experiences as they relate to race/ethnicity, class, and sexualities.

## SOCI 314 Deviant Behavior (4)

The social causes and consequences of insanity, delinquency, criminality, addiction, social unconventionality and other "deviant" behavior. Examines the conversion and commitment to deviant world views, and the social processes involved in the transformation to a deviant identity. Crosslisted as CCJS 441.

## SOCI 315 Socialization (4)

Analysis of the social processes through which human beings are inducted into social groups, in both childhood and adulthood. Particular attention is given to the socializing effects of schools, work, family and friends.

SOCI 317 Emotions and Adult Life (4)
Emphasizes the social context and social development of emotional responses throughout adulthood. Analyzes the reciprocal relations between social definitions and subjective feelings in connection with life events. Addresses both basic emotions such as fear, anger, pleasure and excitement, and the more complex emotions such as love, jealousy, grief, sympathy, pride, shame and despair. Crosslisted as GERN 317. Satisfies GE, category E (Integrated Person).

## SOCI 319 Aging and Society (4)

Examination of aging throughout adulthood. Analysis of theories of aging, their foundations in social science theory, and their policy implications. Exploration of the meanings and consequences of increasing longevity for society and the individual, with emphasis on the social psychological implications for women, minorities and those who are poor. Crosslisted as GERN 319. Satisfies GE, category D1 (Individual and Society).

## SOCI 326 Social Psychology (4)

Introduces relationships between self and society, including the formation and change of attitudes and values, interaction and interpersonal dynamics, and the cultural influences on them. Topics include symbolic interactionism, personal and social identities, motivation, prejudice and the consequences of ethnicity, class and gender. Crosslisted as PSY 326. Satisfies GE D1 (Individual and Society).

## SOCI 330 Sociology of Media (4)

This course will conduct an analysis of structural censorship in the United States and the importance of a free press for the maintenance of democratic institutions in society. Students will become familiar with independent/alternative news sources and prepare summaries of news stories for public release.

## SOCI 331 Mass Communication Theory and Research (4)

A critical analysis of the nature and functions of mass communications in contemporary society. Overview of the history, structure, function and influence of the mass media. Development of critical and analytic skills necessary to determine when and how truth is manipulated to serve special parochial or cultural interests. Crosslisted as COMS 301.

## SOCI 332 Death and American Culture (4)

Examination of the relation of cultural values to practices, attitudes and views about death. Application of sociological and social psychological theories to topics on death and dying, such as death conceptions, terminal care, suicide, war and grief. Emphasis on the social psychology of dying, caregiving, grieving and being suicidal. Crosslisted as GERN 332.

## SOCI 335 American (United States) Society (4)

Study of the major values, institutions and social organizations in the United States. The social sources of change and stability in U.S. society.

## SOCI 336 Investigative Sociology (4)

This is a service-learning course emphasizing the development of sociological research for popular press publication. Students will learn interviewing techniques, review sources of public information, and use of the freedom of information laws. Students will write and investigate social justice news stories using sociological research methods, and prepare a report for popular press publication.

SOCI 340 Drugs and Society (4)
Examination of the sociopsychological, political, economic, ethnic and legal factors relating to drug use and abuse. Theories of causation and methods of rehabilitation will be critiqued. Crosslisted as CCJS 494.

## SOCI 345 Sociology of Families (4)

Analyzes family as a social institution. Examines the interconnections between families and other institutions, with a focus on family change. Considers how families are affected by structures of race/ethnicity, class, gender, and sexuality. Examines and challenges ideologies about families.

## SOCI 347 American Class Structure (4)

An overview of stratification in the United States. Analysis of the effects of this system on those who participate in it, through the study of theoretical, ethnographic and community studies. Analysis of how class affects power, prestige, opportunity, culture and consciousness, as well as the interaction of ethnicity, gender and class.

## SOCI 350 City and Community Life (4)

Examination of the social psychology of urban and community life. Particular attention will be paid to the analysis of the culture of public life, place and place attachment, patterns of interaction in urban and neighborhood settings, and the sociological debate surrounding loss of community.

## SOCI 360 Sociology of Sexualities (4)

An overview of sexuality across institutions of society. Uses theoretical, conceptual and empirical tools to analyze sexuality as a social fact. Explores the social construction of sexuality and how sexuality is socially created organized and constrained.

## SOCI 363 Sociology of Race and Ethnicity (4)

Examines race and ethnic relations in the US from a theoretical, historical, and comparative perspective. Explores the emergence of racial and ethnic minorities through such historical processes as colonialism, slavery and immigration. Studies the current relations among racial and ethnic groups in the US.

## SOCI 365 Human Services Administration (4)

Preparation for sociological practice in human service agencies, both public and private nonprofit. Includes training in such skills as organization planning, grant writing, volunteer management, report writing, communication consulting and group dynamics. Discusses the ethics and professional responsibility of sociologists.

## SOCI 366 Juvenile Justice (4)

An exploration of the nature and extent of juvenile delinquency, with emphasis on serious or violent crime. The major theories of delinquency causation will be reviewed. The course will be devoted to the juvenile justice system and how it processes youths accused of crime. The nature and function of all major segments of the juvenile justice system will be discussed, including law enforcement, juvenile court and corrections. The legal rights of juveniles will also be reviewed. Finally, the current policy issues in juvenile justice will be explored. Crosslisted as CCJS 497.

## SOCI 375 Classical Sociological Theory (4)

A critical examination of the writings of major sociological theorists, including Marx, Weber and Durkheim. This course will involve students in critical analysis of central sociological theories and offer them tools for understanding the development of sociological theory and its unique role in sociology. Satisfies upper-division GE, category D1 (Individual and Society). Required for majors.

## SOCI 377 Contemporary Sociological Theory (4)

Emphasis on contemporary trends in theory, including topics such as culture, social identity, modernity and post-modernity, and the social construction of knowledge and reality. Includes critical assessment of problems, methods, and theories characteristic of sociological inquiry in the 20th and 21st centuries. Prerequisite: SOCI 375 recommended but not required.

## SOCI 380 Political Sociology (4)

An analysis of the relation between political processes and ideologies and the larger society. Emphasis on the social consequences of power arrangements, political economy and political structures. Comparisons between societies will be made.

## SOCI 381 Population and Society (4)

Variables such as gender, race, ethnicity, age, social development, politics and environment are explored in relation to population change. The uses of population studies for consumer marketing, political campaigns, jury selection and social planning are addressed, with an emphasis on California and Sonoma County concerns.

## SOCI 382 Social Movements and Collective Behavior (4)

Social movements are a significant source of social change in modern societies. This course analyses the structure and dynamics of social movements, with attention to the roles of organizations, resources, leadership, recruitment, commitment, values, ideology, political culture and countermovements. Case studies will emphasize the civil rights, women's rights, and environmental movements in the United States.

## SOCI 383 Social Change (4)

Theories and methods for analyzing social change, past, present and future, such as: the relationship of the plow, steam engine and computer to the rise of the agricultural, industrial and information ages; the development, dissemination and impact of such major technologies as the printing press, the automobile, VCRs and computers.

## SOCI 384 Sociology of Consumption (4)

This course explores how goods, commodities and market logic have saturated all forms of contemporary social life. Analysis of the theoretical ideas and historical factors that shape and influence modern consumerism are also considered. Explores how the dynamics of globalization and issues of identity politics influence consumer consumption.

## SOCI 385 Sociology of Culture (4)

Examines the role culture plays in consensus formation, in domination, in resistance, and as a social force creating meaning in our lives. Culture refers to shared beliefs, values and norms, personal and political identities, ideologies and the things we consume daily.

## SOCI 414 Methods Seminar: Social Interaction (4)

Examination of everyday interaction in natural settings. Emphasis will be placed on ethnographic approaches to the understanding of social encounters, situations, identities, and human relationships. Particular attention will be given to the work of Erving Goffman. Prerequisite: SOCI 300.

SOCI 417 Sociology of Mental Illness (4)
Identifies the social sources of behavior defined as mental illness. Compares and contrasts psychological, biochemical and sociological theories of insanity. Analyzes psychiatry and other forms of therapy, mental hospitals, the role of the mental patient, and mental health policy.

SOCI 418 Methods Seminar: Social Development of the Self (4) Examination of the social sources of self-concept, personal identity and individual world views. Special attention will be given to the theories of Mead, Cooley, James and Schutz, as well as to research techniques for the study of social identity, its development and change. Prerequisite: SOCI 300 .

## SOCI 425 Methods Seminar: Urban Sociology (4)

Examines the social consequences of the transition from rural to urban forms of social organization. Special attention directed to the social structural, cultural and social psychological characteristics of urban life. Prerequisite: SOCI 300.

## SOCI 430 Sociology of Leisure (4)

An examination of leisure in the United States. Topics include the uses of uncommitted time by various groups, an examination of leisure subcultures, the relation of leisure patterns to other societal values and institutions, and social issues related to the increased leisure of our society.

## SOCI 431 Sociology of Religion (4)

Study of world religions (Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism), tribal beliefs, American sects and denominations. Theories of religious development, values, change, and effects on society. Satisfies GE, category C3 (Philosophy and Values).

## SOCI 432 Group Work with Older Adults (4)

This service-learning course introduces students to the fundamentals of group work with older adults. The class provides an overview of the phases of group development and basic skills and techniques for facilitating effective groups. Theoretical perspectives from sociology and psychology are used to examine how groups function, the value they have for older adults, and common themes in groups for older adults. To enhance learning, students go to senior sites in the community to co-facilitating weekly intergenerational dialogue groups. Crosslisted with GERN 432 and PSY 432.

## SOCI 434 Cinema and Society (4)

An examination of film as a window to the social world and of sociology as a tool to understand it. The course uses films as data that can be analyzed to learn about such sociological topics as gender, crime, collective behavior, organizations and the family. In addition, sociology is used to examine the structure and functions of film in contemporary society.

## SOCI 435 Media Censorship (4)

Seminar provides an opportunity to gain new insights into social problems through an intensive analysis of the role and impact of mass media in contemporary society. Students will analyze the levels of coverage of important news stories in the United States.

## SOCI 440 Sociology of Reproduction (4)

An exploration of sociological perspectives on human reproduction. Topics include reproduction and gender identity; the social implications of reproductive technologies, historical and contemporary perspectives on normal pregnancy and childbirth, the cultural context for breastfeeding, and the politics of reproductive rights and choices in the United States. Crosslisted with WGS 440.

SOCI 441 Methods Seminar: United States By the Numbers (4) An empirical examination of individuals and institutions in U.S. society, with a focus on quantitative data. Teaches students about existing data sources, such as the U.S. Census and the General Social Survey, and how to analyze them. Provides preparation for work in policy analysis, organizational consulting, survey or market research, and other social science careers. Prerequisite: SOCI 300.

SOCI 443 Methods Seminar: Women and Social Policy (4)
Explores the effects of social politics and their implementation on women's lives. Analyzes the ideologies shaping these policies especially how gender intersects with race/ethnicity, class, sexuality, age, and religion to affect policy outcomes. Particular attention will be paid to conducting/analyzing focus groups. Prerequisite: Sociology Majors and Minors only and SOCI 300.

## SOCI 445 Sociology of Childhood and Adolescence (4)

 Examines childhood and adolescence in various historical and social contexts. Topics may include gender, race and class inequalities in childhood; the nature of preadolescence and adolescence as social problems; the changing relationship between childhood and families, schools, and economy; the prolongation of adolescence; and the significance of peer groups.
## SOCI 449 Sociology of Power (4)

An analysis of the origin, development, dynamics and application of power in human interaction, social organizations and institutions. Problems of ensuring a balance of power and fairness in the exchange of needed services, benefits and rewards will be emphasized.

## SOCI 450 Punishments and Corrections (4)

A consideration of the problems created by pressures to punish and control criminals, the politics of control strategies. The use and misuse of probation and parole, the concept of correction, and alternatives to incarceration. Crosslisted as CCJS 450.

## SOCI 451 Sociology of Education (4)

A survey of issues concerning the structure of education in contemporary society, such as the social organization of the classroom, grading practices, political influences on schools, the contribution of education to the maintenance of capitalist society, teacher unionization, and student rights.

## SOCI 452 Methods Seminar: Health Care and Illness (4)

A dual focus on the social organization of health care and the social psychology of illness. Analyses of the structure of care, patient-practitioner relationships and treatment ideologies. Emphasis on the patient's experience of illness, intimate relationships and self-images. Prerequisite: SOCI 300 .

## SOCI 461 Social Work and Social Welfare (4)

The history of social welfare and social services in modern society. Comparison of government social services with nonprofit or private social services. Overview of major social service issues such as mental health, senior services and aid to families. Recommended for anyone considering social work, counseling, or human service administration.

SOCI 463 Methods Seminar: Bureaucracies and Institutions (4)
Political, economic, social and psychological analyses of administrative structures. The role of formal and informal organization, ideology in bureaucracy, decision making, morale and conflict. Prerequisite: SOCI 300.

## SOCI 470 Methods Seminar: Culture and Identity (4)

Examines culture as central to processes of meaning making and identity. Explores identity politics as a form of resistance and domination. Focuses on the practice and analysis of ethnographic observation and in-depth interviewing. Prerequisite: SOCI 300.

## SOCI 480 Methods Seminar: Sociology of Work (4)

A theoretical and empirical analysis of work in American society, examining the types of jobs open to women and men today, the rewards and dissatisfactions of these jobs, and how work has changed historically or may evolve in the future. Prerequisite: SOCI 300.

## SOCI 482 Sociology of Environment (4)

This service-learning course focuses on relations among major social institutions and the environment, and between national and global social inequalities and environmental degradation are examined. Differences in class, race, and gender mean that some people are disproportionately burdened by consequences of environmental degradation. Socio-environmental perspectives and practical alternatives to our acknowledged ecological crises are explored, including environmental social justice movements, critical social analysis, and alternative socio-economic approaches to consumption and employment that foster ecologically sustainable societies.

SOCI 484 Methods Seminar: Sociology of Genocide (4)
Using the tools of comparative historical methodology, students analyze the sociological factors typifying genocide and genocidal processes. Examination of the causes and consequences of the Holocaust and the characteristics of pre-20th century genocide, the Armenian, Rwandan and contemporary genocides are considered, as well. Prerequisite: SOCI 300.

## SOCI 485 Organizations and Everyday Life (4)

Introduces key themes and concepts in the sociological study of organizations. Emphasis on applying theories and perspectives to organizational settings and circumstances likely to be encountered in everyday social life.

## SOCI 488 Selected Topics in Service Learning (4)

Subject will vary by semester, but course has a required service learning component and concentrates on topics related to aspects of community based research and/or action research. May be repeated for credit with different topics.

## SOCI 490 Teaching Assistant in Sociology (1-4)

Open only to advanced students. Intended to give students experience in assisting the instructor in a sociology course by doing research and tutoring students in the class. Cr/NC only. May be repeated for credit, but only 4 units total of SOCI 490, 493, and 495 may be used toward the major. Prerequisite: consent of instructor.

## SOCI 493 Research Assistant in Sociology (1-4)

Open only to advanced students. Gives students experience in assisting faculty with data collection,library research, and/or data analysis linked to sociological research and writing. Grade only. May be repeated for credit, but only 4 units total of SOCI 490, 493, and 495 may be used toward the major. Prerequisite: consent of instructor.

## SOCI 495 Special Studies (1-4)

A supervised study of a particular research question or area of interest selected by the student in consultation with a sponsoring faculty member. Regular meetings will be arranged for discussions and progress evaluations, and a term paper will be submitted. Grade only. May be repeated for credit, but only 4 units total of SOCI 490,493 , and 495 may be used toward the major.

## SOCI 496 Internship Practicum (1)

This is a concurrent course for students receiving sociology internship credit. Students will learn to view the internship experience through a sociological lens and as a means to explore workplace issues and career options. Concurrent enrollment with SOCI 499 is required when SOCI 499 is taken for the first time. May not be repeated for credit.

## SOCI 497 Interdisciplinary Seminar (1-4)

Exploration of basic social problems. Resource persons from other disciplines may participate. Themes and topics will vary. May be repeated for credit.

SOCI 498 Senior Seminar (4)
Capstone course for the major that requires advanced sociological research. Several different topics are offered each semester. Past examples include: women and aging, food and society, gender and politics, and the sociology of time. Check department for current offerings. Required for all majors. May be repeated for credit. Prerequisite: open only to sociology majors who have completed at least 20 upper-division units in sociology, including SOCI 300, 375, and a methods seminar.

## SOCI 499 Internship (1-4)

For advanced undergraduates in approved internships in organizational settings. Facilitates application of sociological insights to internship site, while also encouraging contribution to organization's mission. Concurrent enrollment in SOCI 496 required when SOCI 499 taken for first time. May be repeated for credit for up to 8 units, but only 4 units may be used toward the major. Prerequisite: consent of instructor. Cr/NC only.

## SOCI 595 Special Studies (1-4)

Advanced research and writing. Students work under close supervision of faculty members. Subject matter can be variable. May be repeated for credit. Prerequisites: Graduate status, consent of instructor and completed special studies form.

## Social Sciences (SSCI)

## SSCI 300 Introduction to Portfolio Development and Special

 Project (1)Introduces the student to both the Liberal Studies Program and to the subject matter preparation program through a broad based, interdisciplinary approach that facilitates the student's need to understand the underlying relationship among all the courses in the program of study.

## SSCI 400 Portfolio Evaluation (3)

Contents of each portfolio will reflect the courses students have taken to complete the program, and will include organized examples of their achievement in each of the core courses in history, political science, economics and geography, and in the courses they have chosen in the breadth/perspectives part of the program.

## SSCI 495 Special Studies (1-4)

A supervised study of an area of interest selected student in consultation with a sponsoring faculty member. Regular meetings will be arranged for discussions and progress evaluations, and a project/paper/and/or portfolio will be submitted.

## SSCI 499 InTERNSHIP (1-3)

Prerequisite: Consent of Instructor.

## Spanish (SPAN)

SPAN 101 Basic Spanish, 1st Semester (4)
Spanish for beginners. Elementary oral expression and fundamentals of grammar; cultural readings and beginning practice in composition. Must be taken concurrently with SPAN 101 L .

SPAN 101L Language Laboratory (1)
A minimum of two academic hours (100 minutes) of weekly practice in the language laboratory. Cr/NC only. Must be taken concurrently with SPAN 101.

SPAN 102 Basic Spanish, 2nd Semester (4)
Spanish for beginners, second level. Elementary oral expression and fundamentals of grammar; cultural readings and practice in composition. Must be taken concurrently with SPAN 102L. Prerequisite: SPAN 101 or equivalent.

SPAN 102L Language Laboratory (1)
A minimum of two academic hours (100 minutes) of weekly practice in the language laboratory. Cr/NC only. Must be taken concurrently with SPAN 102.

## SPAN 150 Elementary Conversation (2)

Directed conversation in Spanish for elementary-level students. Includes individual and class assignments in laboratory. May be repeated for credit. Admission by consent of instructor.

SPAN 201 Intermediate Spanish, 1st Semester (4)
Review of fundamentals and a study of complex structural patterns. Reading of authentic cultural materials used in Spain and Latin America. Weekly compositions. Must be taken concurrently with SPAN 201L. Prerequisite: SPAN 102 or equivalent.

SPAN 201L Language Laboratory (1)
A minimum of two academic hours (100 minutes) of weekly practice in the language laboratory. Cr/NC only. Must be taken concurrently with SPAN 201.

SPAN 202 Intermediate Spanish, 2nd Semester (4)
Communicative grammar patterns in Spanish. Reading of current authentic cultural materials and weekly practice in composition. Must be taken concurrently with SPAN 202L. Prerequisite: SPAN 201 or equivalent.

SPAN 202L Language Laboratory (1)
A minimum of two academic hours (100 minutes) of weekly practice in the language laboratory. Cr/NC only. Must be taken concurrently with SPAN 202.

SPAN 250 Intermediate Conversation (2)
Practice in essential communicative fluency in Spanish. Prerequisite: SPAN 102 or equivalent.

SPAN 300 Advanced Spanish Language (4)
Activities in written and spoken Spanish designed to increase student's proficiency to the advanced level. Course will highlight selected points of grammar structure and form in the context of meaningful engagement with the language.

SPAN 301 Advanced Composition and Conversation (4)
Compositions to achieve a mastery of the written language. Introduction to the preparation of critical essays and studies. Weekly compositions. Prerequisite: SPAN 300.

SPAN 304 Introduction to Spanish Linguistics (4)
An introduction to the linguistics structure of Spanish. Overview of core components such as Phonetics/Phonology, Morphology/Syntax, and Semantics/ Pragmatics..

SPAN 305 Introduction to Literature (4)
A survey of representative literary works from a variety of genres, time periods, and regions. Introduction to concepts and principles of literary analysis. Prerequisite: SPAN 300 or permission of instructor.

## SPAN 306 Cultures of Spain (4)

A study of the development of the cultures and origins of Spain, and the formation of identities in its history, literature, film and art. A survey course including lectures, discussion, readings, and writing.

## SPAN 307 Cultures of Latin America (4)

A study of the development of the cultures and origins of Latin Ameria, and the formation of identities in its history, literature, film and art. A survey course including lectures, readings, discussion, and writing.

## SPAN 395 Community Involvement Program CIP (1-4)

CIP involves students in basic community problems, performing such tasks as tutoring, coaching and reading for the blind. Students receive 1-4 units, depending on the specific tasks performed. A total of 6 units of CIP credit may be applied toward a degree.

## SPAN 400 Special Topics in Linguistics (4)

Topics in Spanish Linguistics, which may include sociolinguistics, discourse analysis, historical and applied linguistics. Offered in spring semester. Satisfies GE, category C4 (Comparative Perspectives and Foreign Languages). Prerequisite SPAN 304 or permission of instructor.

## SPAN 401 Peninsular Literature (4)

A detailed study of representative authors, genre, period or region. Requires discussion in class and a term paper.

## SPAN 402 Latin American Literature (4)

A detailed study of representative authors, genre, period, or region. Requires discussion in class and a term paper.

## SPAN 410 Spanish Translation, Theory, and Practice (4)

Introduction to translation theory; service-learning translation project. Survey of principal translation resources, critical evaluation of representative translations, and examination of translation techniques. Collaboration on a translation project with authentic texts provided by agreement with public service agencies representing a wide range of fields. Prerequisite: 12 upper-division Spanish units or instructor consent.

## SPAN 426 Seminar in Modern Varieties of Spanish (4)

The phonological and morphosyntactic character of contemporary regional spoken Spanish (Caribbean, Andean, Gauchesque, Andalusian, etc.) A practical introductory sociolinguistic analysis of regional languages in Spain and Latin America (Galician, Basque, Catalan and Indo-American languages). Prerequisites: SPAN 303 and 304.

## SPAN 427 Spanish Teaching Methodologies (3)

Practical application of linguistic principles to the teaching of Spanish. Topics include discussion and practice of methods and materials for teaching Spanish, technological resources for the Spanish teacher and learner, and techniques for learner testing and evaluation. Prerequisite: SPAN 304 or consent of instructor.

## SPAN 428 Spanish Cinema (4)

A study of Spanish language and culture through cinema. Prerequisite: Junior standing or higher and SPAN 306, or consent of the instructor.

SPAN 490 Seminar in Linguistics (4)
Capstone seminar focusing on a representative theme in the field of linguistics. Requires completion and presentation of a final projecft as an exit assessment for graduation.

## SPAN 491 Seminar in Literature (4)

Capstone seminar focusing a representative theme in the field of literature. Requires completion and presentation of a final project as an exit assessment for graduation.

## SPAN 495 Special Studies (1-4)

Directed, individual study on subjects of special interest. Students must prepare a proposal that is subject to the approval of the Spanish program.

## SPAN 499 Internship (1-4)

An internship in Spanish must combine: 1) service in a school or an agency in which Spanish is the operational language; 2) the selection of a topic for observation and study; 3) preparation of a bibliography and a reading list related to the internship activity; 4) a term paper that reflects both the internship work experience and appropriate research. For proposals and placement, please see the program coordinator.

## SPAN 595 Special Studies (1-4)

Directed, individual study on a particular topic. Course may require completion of an upper-division undergraduate course in Spanish or in a related discipline relevant to the student's program of study and will include additional readings, assignments, or projects as determined by the instructor. May be repeated for credit when topics vary.

## Supplementary Engish Language Development (SELD)

SELD 100A Supplementary English Language Development (3) Designed for international students and other nonnative speakers of English, this course emphasizes communication for academic purposes, and concentrates on expository writing, lecture comprehension, and analytical reading. Limited enrollment. Admission by ESL Placement Test only. Students taking this course may not register for more than 14 units of academic course work.

## SELD 100B Supplementary English Language Development (3)

Designed for international students and other nonactive speakers of English, this course focuses on the development of academic discourse skills, with stress on strengthening proficiency in a range of oral and written American English styles. Limited enrollment. Admission by ESL Placement Test only. Exit from SELD 100B requiries passing an exit exam.

## Theatre Arts and Dance (THAR)

## THAR 101 Making Theatre (3)

This course is an overview of the art and practice of making theatre. Designed for non-majors, the class examines the various elements involved in creating, developing, performing, and presenting a theatrical event. Through lecture, guest speakers, hands-on projects, video, and demonstrations, students gain an appreciation of the artistry of live theatre performance. Satisfies GE, category C1 (Applied Arts Combining Studio and Theory).

THAR 110 Dance Fundamentals (1)
An introduction to the fundamentals of modern dance designed to develop body awareness, movement skills and aesthetic sensibilities. Includes improvisation, rhythm, motion and space exploration, and fundamentals of alignment. May be taken five times for credit.

THAR 115 Dance Styles (1)
Class may focus on a particular dance style, e.g., contact improvisation, jazz or tap, or on dances of a particular era, e.g., social dance from 1935 to 1960. The emphasis will be on American dance styles. Some styles of dancing require more generalized dance background than others. May be taken five times for credit. Prerequisite: consent of instructor.

THAR 116 Acting Styles: Comedy Improvisation (1)
Class will focus on a particular acting style, e.g. comedy, commedia del arte, farce, improvisation. May be taken four times for credit.

## THAR 120A Acting Fundamentals (2)

Exploration of acting includes group and individual improvisation, physical and vocal exercises, and scene work, leading toward relaxation, physical action and believability. Class work is designed to stimulate the imagination, build selfconfidence and trust, and reach the emotional reservoir of the actor. This class is recommended for singers. May be taken three times for credit.

## THAR 120A Acting Fundamentals (2)

Exploration of acting includes group and individual improvisation, physical and vocal exercises, and scene work, leading toward relaxation, physical action and believability. Class work is designed to stimulate the imagination, build selfconfidence and trust, and reach the emotional reservoir of the actor. This class is recommended for singers. May be taken three times for credit.

## THAR 120B Acting Fundamentals for Acting Concentration

 Majors (2)Exploration of acting includes group and individual improvisation physical and vocal exercises, and scene work, leading toward relaxation, physical activity and believability. Class work is designed to stimulate the imagination, build selfconfidence and trust, and reach the emotional reservoir of the actor. This class is recommended for singers. First of a seven course sequence for Acting Concentration Majors.

THAR 143A Stagecraft (2)
Work in both theory and practice covers scenery construction techniques and drawings for the theatre. Use of tools and materials for scenery, costumes, props and lighting will be fundamental to the course.

THAR 143B Costumes (2)
An introduction to the fundamentals of costume design and construction. Basic makeup for the stage will be examined and practiced. Prerequisite or concurrent enrollment in THAR 143A.

## THAR 144A Scenery (2)

Design principles are applied to scenery and properties for the stage. Includes advanced drafting and rendering techniques used to realize and execute designs for production. Prerequisite: THAR 143A.

## THAR 144B Lighting (2)

Basic lighting design, including the drawing of lighting plots, rigging techniques, and the operation of light boards and systems. Work in class affords direct experience in lighting of departmental productions. Prerequisite: THAR 143A.

## THAR 145A Voice for the Actor (1)

Fundamentals of voice to free the natural voice and build towards its full use. Exercises in breathing, relaxation and movement, resonance, and power will help the actor discover a direct, spontaneous connection between breath and the impulse to speak; develop greater vocal range; and explore the intricacies, implications, layers, and joys of the spoken text. May be repeated once for credit.

## THAR 145B Speech for the Actor (1)

Articulate speech and textual clarity are primary skills for the actor. This course will concentrate on the fundamentals of speech, anatomy of good sound production, standard pronunciation techniques through the International Phonetic Alphabet (IPA), and methods for clearly speaking, articulation, vocal muscularity and phrasing. Prerequisite: THAR 145A. May be repeated once for credit.

## THAR 161 Ballet I (1-2)

This course is designed to give the modern dancer a foundation for movement in classical tradition. The vocabulary of classical ballet is presented, with emphasis on alignment and placement, with relevance to more contemporary dance forms. Exercises will be given to strengthen and stretch the body. Special attention will be given to turns and fast footwork, again to support work in modern dance. This course may be taken four times for credit.

## THAR 199 Student Instructed Course (1-3)

## THAR 200 Seeing Theatre Today (3)

Experience great performances created by modern and contemporary theatre artists. Students are engaged as audiences through videotaped productions of renowned and important performers, directors, and choreographers, and Department of Theater and Dance productions. Post-viewing small-group discussions and on-line chats ask students to further engage by reflecting upon their shared experience. Students may opt to pay an activity fee, due at registration, to see a major production in the San Francisco Bay Area. Satisfies GE, category C4.

THAR 202 Introduction to the History of Drama and Dance: Origins to 1800 (4)
First of a two part course, this course examines Western Theatre traditions of ritual, drama, and dance at their origins, while dramatic tragedy and comedy are traced from the Golden Age of Greece through the Age of Enlightenment, roughly 1800. Added emphasis is placed on traditional Asian theatre forms. The course relates the theatre's past to how theatre is practiced today. Satisfies GE, category C 1 (History of the Fine Arts).

THAR 203 Introduction to the History of Drama and Dance: 1800 to Present (4)
Part two examines theatre, drama and dance from 19th Century to the present, including the rise of Realism and other theatre and dance forms in the 20th Century. Also considered are the American musical, and recent trends in diversity and multiculturalism, and the theatre?s relationship to electronic media. Satisfies GE, category C1 (History of the Fine Arts).

## THAR 210A Contemporary Dance I (2)

Introduces specific contemporary techniques, with the emphasis on expanding movement range and facility. Alignment, strength, flexibility and expressiveness are concerns of this course, which is intended for students with some experience in movement fundamentals. May be repeated twice for credit.

## thar 210B Contemporary Dance II (2)

Continuation of THAR 210A. Prerequisite: THAR 210A. May be repeated twice for credit.

## THAR 211 Contemporary Dance II (2)

Continuation of THAR 210. Prerequisite: THAR 210. May be rwepeatd twice for credit.

## THAR 212 Contemporary Dance Level III (2)

Continuation of THAR 211. Prerequisite THAR 210. May be repeated twice for credit.

## THAR 213 Contemporary Dance Level IV (2)

Continuation of THAR 212. Prerequisite: THAR 210. May be repeated twice for credit.

## THAR 220A Acting: Text and Scene Study (2)

Text analysis and scoring, rehearsals, and in-class presentation of scenes drawn from realistic dramatic literature. Work with emotional memory and characterization. Core course for acting concentration majors. May be taken two times for credit. Prerequisite: THAR 120A or B or consent of instructor.

## THAR 220B Acting: Characterization (2)

The focus of this course is on aiding the actor in developing a process for creating believable dramatic characters, and bringing them truthfully to life in theatrical context. Study of life models support presentations of rehearsed scenes, which are then critiqued and developed in class. Scenes are normally drawn from realistic dramatic literature. This course is the third in the Acting Concentration sequence, and is a core course for acting majors. May be taken two times for credit. Prerequisites: THAR 120A or B, 220A or consent of instructor.

## thar 230 Stage Management (2)

The functions of the stage manager from audition to final performance are examined. Students are trained to organize rehearsals, record actors' movements, create prompt books, and to manage a performance. Students serve as stage managers for Performing Arts productions. Prerequisites: THAR 144A and B.

## thar 231 Stage Management (1)

Stage Management Practicum. Students serve as stage managers for Performing
Arts productions. Prerequisites: THAR 230 (or co-requisite) or consent of instructor.

## THAR 240 Choreography I (2)

Fundamentals of choreography through a problem-solving approach. Studies deal with aspects of time, space, dynamics and movement, with an emphasis on perceptions of meaning, that is, on "seeing" dancing as well as "making" dancing. May be taken two times for credit. Prerequisite: THAR 210 or consent of instructor.

## THAR 244 Scene Painting (2)

Study and practice of the basics of layout and painting of scenery, from rendering to full scale. Students assist in painting scenery used in Theatre and Dance productions. Includes instruction on handling toxic materials safely and on protecting the environment. Prerequisites: THAR 143A and B, 144A and B.

## THAR 261 Ballet II (1-2)

Continuation of study of classical ballet. Traditional barre with allegro and adagio center work. Western classical dance skills emphasizing strength, alignment, flexibility and musicality as a support for contemporary dance styles. May be taken four times for credit. Prerequisite: THAR 161 or consent of instructor.

## THAR 295 Community Involvement Program (1-4)

 Credit for participation in internships arranged through individual contact with a Theatre Arts or Dance faculty member.
## THAR 300 Theatre in Action (3)

Required of all Theatre Arts majors. An investigation of technique, form and content in drama and dance performances. Attendance at oral discussion and written critiques of 7-8 departmental, local and/or Bay Area productions will develop articulate understanding of contemporary performance and its relation to theatre history, the arts, society and culture. Activities fee payable at time of registration. Satisfies upper division GE, Category C1 (History of the Fine Arts), for juniors and seniors only. (Also available as periodic trips to New York.) May be taken two times for credit.

## THAR 301 Dance Ensemble (1-3)

A process-and-product class in which students receive credit for major participation in areas of dance, choreography or technical work (costumes, light, decor) for presentation in public performance. Dances may be choreographed and directed by faculty, guest artists or students. May be repeated six times for credit. Prerequisite: THAR 240 or consent of instructor.

## THAR 302 Drama Ensemble Workshop (1-3)

A production class in which students receive credit for major participation as a partner in plays directed by faculty members and guest artists. Play titles, performance venues, styles, and production approaches vary from semester to semester. May be repeated six times for credit. By audition or consent of instructor.

## THAR 303 Technical Theatre Workshop (1-3)

A production class in which students receive credit for design, backstage and technical work in plays directed by faculty members and quest artists. May be repeated six times for credit. By audition or consent of instructor.

## THAR 310A Intermediate Dance Block (2-5)

The Dance Block integrates the study of contemporary dance technique with the study of improvisation and anatomy for dancers. The safe and intelligent use of the body, the development of technical and improvisational skills, and artistry are emphasized. Prerequisites: THAR 210A and B, and consent of instructor.
thar 310B Intermediate Dance Block (2-5)
Continuation of THAR 310A. Prerequisites: THAR 310A and consent of instructor.

## THAR 313 Lecture Series (1-3)

## THAR 320A Intermediate Acting Block (5)

First in a four-course sequence intended for acting concentration majors. In-depth actor training, integrating fundamental movement and vocal acting skills, text analysis, scene-study and character work. The four-semester sequence includes 1) physical theatre, 2) verse drama, 3) 20th century non-realistic drama, and 4) exploration of contemporary theatre and an on-camera component. Prerequisite: THAR 120A or B, 220A, 220B, 145A, and 145B, and consent of instructor.

THAR 320A Intermediate Acting Block (5)
First in a four-course sequence intended for acting concentration majors. In-depth actor training, integrating fundamental movement and vocal acting skills, text analysis, scene-study and character work. The four-semester sequence includes 1) physical theatre, 2) verse drama, 3) 20th century non-realistic drama, and 4) exploration of contemporary theatre and an on-camera component. Prerequisite: THAR 120A or B, 220A, 220B, 145A, and 145B, and consent of instructor.

THAR 320B Intermediate Acting Block (5)
Continuation of THAR 320A. See description above. Prerequisite: THAR 320A, ENGL 339 and consent of instructor.

THAR 321A Intermediate Technical Block / Foundations (2) Technical concentration students participate in foundations and script analysis portion of 320A acting block. Prerequisites: THAR 143A and B, THAR 144A and B, and THAR 244, and consent of instructor.

## THAR 321B Intermediate Technical Block (2)

Technical concentration students participate in foundations and script analysis portion of 320B acting block. Prerequisites: THAR 143A and B, THAR 144A and B, and THAR 244, 321A, and consent of instructor.

THAR 322B Advanced Scene Study (2)
Text analysis and scoring, rehearsals, and in-class preparation of scenes drawn from realistic dramatic literature. Work with emotional memory and characterization. Core course for acting concentration majors. May be taken two times for credit. Prerequisite: THAR 120 or B or consent of instructor.

## THAR 325 Audition for the Theatre (2)

This course is designed to cover the practical aspects of auditioning for the theatre, including 1) selecting appropriate material, e.g., classic/modern, dramatic/ comic, musical/revue, 2) preparing audition pieces, 3) giving a winning audition, 4) evaluating performance for future guidance and 5) resume and headshoot needs. May be taken three times for credit. Prerequisite: THAR 120A or THAR 120B, or consent of instructor.

## THAR 330 Musical Theatre Production (1-3)

A course devoted to the study and performance of musical theatre literature. Designed for singers, actors and others interested in musical theatre.

## THAR 340 Choreography II (2)

Further development of choreographic skills and artistry. Includes problems in group choreography and relationship to fundamentals of rhythm. May be taken three times for credit. Prerequisite: THAR 240.

THAR 343 Advanced Scene Painting (2)
The basics of layout techniques and painting of full-scale scenery will be realized by the class with hands-on painting of the SSU productions for that semester. This course includes sections on being safe with toxic materials, and how to keep the environment green. Prerequisites: THAR 143A, 144A and B.

## THAR 344A Design for the Stage (3)

An advanced course examining design and rendering techniques for the stage. Students learn advanced drafting techniques. Class works as a team, with students assuming various design responsibilities for selected plays. Prerequisites: THAR 144A and B and consent of instructor.

THAR 344B Design for the Stage (3)
Continuation of THAR 344A. Prerequisites: THAR 144A and B, THAR 344A and consent of instructor.

## THAR 345 Choreography III (2)

Further development of choreographic skills and artistry, including more extensive group choreography and relationship of movement to sound and music. May be taken three times for credit. Prerequisite: THAR 340.

## THAR 350 Directing Workshop (2)

A workshop in directing scenes and compositions. Rehearsal and techniques, composition, blocking, characterization, rhythm, style and script analysis are explored. Approaches of significant directors are examined. May be taken three times for credit. Prerequisites: all lower division theatre major/minor requirements, or consent of instructor.

## THAR 355 Advanced Directing Workshop (2)

An advanced workshop in composition, technique, and directed scenes and one-act plays that are rehearsed, presented and critiqued as a means of reaching a final public performance. The course builds upon basic directing concepts and terms necessary for communication with actors and designers, while utilizing skills of research, text analysis and staging principles. Prerequisite: THAR 350 or consent of instructor.

## THAR 370A Early Plays: Evolution and Innovation (3)

An examination of Western theatre from the Greeks to the Enlightenment. Plays are used as a basis for understanding how theatre reinvents itself to reflect social and historical currents. Emphasis on how dramatic literature and history can be interpreted and re-examined to resonate with today's theatre. The theatre artist is viewed as a voice for humanity as well as a force for social change. Prerequisite: THAR 202 or consent of instructor.

THAR 370B Modern Plays: Evolution and Innovation (3)
Seminar on dramatic literature from the late 19th Century to our own time. Continuation of THAR 370A. Prerequisites: THAR 203 or consent of instructor. May be taken out of sequence.

## THAR 371A History of Dance A (3)

Survey of history of Western theatrical dance from ritual roots to 19th century Romantic and Classical ballet. Prerequisite: THAR 202 or consent of instructor.

## THAR 371A History of Dance A (3)

Survey of history of Western theatrical dance from ritual roots to 19th century Romantic and Classical ballet. Prerequisite: THAR 202 or consent of instructor.

## THAR 371B History of Dance B (3)

Survey of history of theatrical dance in the 20th century, including global influences on most recent dance forms. Prerequisite: THAR 371A or consent of instructor.

## THAR 373 Dances of the World (3)

An examination of dance as cultural expression primarily in non-Western, but not excluding, Western dance forms. This course will focus on ways in which dance flows across cultural boundaries, reflecting and creating culture. Satisfies upperdivision GE, category C4.

## THAR 374 Theatre of the World (3)

This course is an exploration of theatre traditions from around the world. Theatre is examined as the expression of specific cultures. Students learn how theatre practice influences theatre making in both Western and Eastern Cultures. Required for General Theatre Degree majors. Satisfies UD C4 general elective requirement. Prerequisite: junior or senior standing.

## THAR 375 Contemporary Plays and Playwrights (3)

This class explores contemporary American plays and their impact on the current American theatre scene. It offers some of the finest writing that is occurring in this country today. Students will discover theatrical trends of our own era, and how these trends relate to contemporary society and politics.

## THAR 376 PLAYwRiting I (3)

An introduction to the art and craft of writing for the stage, for writers of diverse levels of experience. Focuses in particular on the development of character, and explores the virtues of both imaginative freedom (the first draft) and structure (the rewrite). Includes in-class writing and performance improvisations, as well as study of plays by contemporary writers. Students create original short plays (tenminute or one-act) and have selections of their work performed for an audience at the end of the term.

## THAR 378 Dramaturgy and Story Analysis (3)

This course explores how theater artists use text analysis to shape real-world production and performance work, and in so doing models the discipline and professional of dramaturgy for future theater professionals, teachers, and literary critics. Using methods drawn from the ancient Greeks (Aristotle) to contemporary cinematic story theory, students learn to determine the fundamental elements of dramatic storytelling, otherwise known as the dramaturgical essence of the play. Students read theoretical texts and read plays as case studies, and practice their own analysis through formal papers.

## THAR 380 Research (3)

Development of research skills. May be used in practical application to programs for theatre arts productions. Students are encouraged to investigate topics of personal interest. The final research project may consist of an exploration of a particular era or phenomenon, or may be groundwork for a major creative project. May be taken three times for credit. Prerequisites: THAR 202 or 203, THAR 300 and THAR 370 or by contract with an instructor, specifying course expectations, work to be completed, regular schedule of contract hours, and assessment criteria.

## thar 395 Community Involvement Program (1-4)

Please see appropriate concentration advisor.

## THAR 400 Theatre of Today (1)

A career preparation course in topics vital to the emerging artist such as career preparation guidance, resume writing, graduate school application, professional internships and community theatre options. Professional guest speakers augment the regular faculty.

## THAR 401 Senior Project Ensemble Workshop (3)

An upper division Theatre Arts student may petition the Theatre Arts faculty for permission to do a Senior Project. Such a project is the culmination of the student's work, and may be an original work, a performance project, a research paper, a teaching project, or take some other form which represents and reflects the student's interests and accomplishments. The privilege of doing a Senior Project is awarded only to a student deemed exceptional by the department faculty. Students who participate in another student's Senior Project may enroll in Dance or Drama Ensemble to receive credit. Prerequisites: senior standing and consent of department faculty.

## THAR 410A Advanced Dance Block (2-5)

A continuation of the work begun in 310A and $B$, with the focus on increasing technical and improvisational skill, and more refined perception of the structure and meaning of movement. Prerequisites: THAR 310A and 310B and consent of instructor.

## THAR 410A Advanced Dance Block (2-5)

A continuation of the work begun in 310A and $B$, with the focus on increasing technical and improvisational skill, and more refined perception of the structure and meaning of movement. Prerequisites: THAR 310A and 310B and consent of instructor.

## THAR 410B Advanced Dance Block (1-5)

A continuation of 410A. Prerequisites: THAR 410A and consent of instructor.

## THAR 420A Advanced Acting Block (2-5)

Continuation of THAR 320A and B. See description above. Further development and integration of acting skills, including a wider scope of theatrical styles and scripts from the world?s dramatic literature. Emphasis is placed on strengthening connections between performer and ensemble and between performer and director. Note: Acting concentration students enroll for 5 units. Technical Theatre concentration students enroll for 2 units. Prerequisites: THAR 300, THAR 320A and B, and by consent of instructor. THAR 320 and THAR 420 are taught concurrently.

## THAR 420A Advanced Acting Block (2-5)

Continuation of THAR 320A and B. See description above. Further development and integration of acting skills, including a wider scope of theatrical styles and scripts from the world?s dramatic literature. Emphasis is placed on strengthening connections between performer and ensemble and between performer and director. Note: Acting concentration students enroll for 5 units. Technical Theatre concentration students enroll for 2 units. Prerequisites: THAR 300, THAR 320A and B, and by consent of instructor. THAR 320 and THAR 420 are taught concurrently.

THAR 420B Advanced Acting Block (2-5)
Continuation of THAR 420A. Prerequisites: THAR 420A.
THAR 421A Advanced Technical Block / Foundations (2) Technical concentration students participate in foundations and script analysis portion of 420A acting block. Prerequisites: THAR 143A and B, THAR 144A and B, and THAR 244, 321A, 321B, and consent of instructor.

THAR 421B Advanced Technical Block / Foundations (2) Technical concentration students participate in foundations and script analysis portion of 420B acting block. Prerequisites: THAR 143A and B, THAR 144A and B, and THAR 244, 321A, 321B, 421A, and consent of instructor.

THAR 430 Special Topics (1-3)
Special topics in theatre arts selected to introduce students to recent theory, research and practice in the discipline. Consult Schedule of Classes for topic to be studied and current unit offering. May be taken two times for credit.

## THAR 444 History of Ornament (2)

Form and function of props, furniture, and architectural structures produced by humankind through the ages. Examination of ways in which decorations, style, and uses of these objects has evolved under political, cultural, and socioeconomic influences. May include research and construction of properties for Performing Arts productions. Prerequisites: THAR 143A and 143B, THAR 144A and 144B.

## THAR 460 Drama for Children (2)

Developing skills and resources for working with children, including creative dramatics, mime, storytelling and scripted drama. Practical experience in working with children will be gained through master teacher observation and student teaching. May be taken three times for credit.

## THAR 463 Theatre Management (3)

The study of scheduling, promotion, ticketing, house and stage management, booking, budgeting, technical theatre in terms of budgeting, and marketing theatrical productions. Practical application is gained by participation in the evening performances of the Theatre and Dance productions.

## THAR 470 Dance for Children (2)

Developing resources and skills for working with children in creative movement. Class includes participation in rhythmic activities and movement exploration, with observation and student teaching of children's dance classes. May be taken three times for credit.

## THAR 480 Coordinated Projects (1-3)

Involvement in on- and off-campus dance or drama projects with student directors, actors, designers and/or technicians, and under faculty supervision. May be repeated six times for $\mathrm{Cr} / \mathrm{NC}$ only. Prerequisite: consent of faculty supervisor.

## THAR 485 Teaching Assistant in Theatre Arts (1-4)

Teaching assistantship in Theatre Arts. Open only to upper-division students with knowledge of theatre with special interest in teaching and pedagogy. Intended to give students classroom experience by assisting an instructor in a Theatre Arts and Dance department course, or under the supervision of a faculty member, experience in tutoring students. Prior arrangements with faculty required. Graded only.

## THAR 490 Theatre Practicum (1-3)

The use and development of a theatre skill such as acting, dancing, design, light, set or costume construction, in a commercial environment where the evaluation of the work is under professional rather than faculty supervision. May be taken four times for $\mathrm{Cr} / \mathrm{NC}$ only. Prerequisite: consent of faculty advisor.

## THAR 495 Special Studies (1-4)

Individualized studies in topics beyond the scope of the regular curriculum. Contract with an instructor, specifying course expectations, work to be completed, regular schedule of contact hours, and assessment criteria. Prerequisite: consent of faculty advisor.

## THAR 499 Internship: Theatre Management (1-4)

The student will gain practical experience in various management areas of theatre. Individual internships may include public relations, publicity, programming, scheduling, box office management, funding, sales, budgeting. The unit value will be determined by each internship. May be taken three times for Cr/NC only.

## University Courses (UNIV)

## UNIV 50 Writing Skills (4)

This course focuses on developmental and learning skills in writing, including language mechanics, sentence patterns, paragraph patterns, spelling, vocabulary and developmental skills in reading, in preparation for ENGL 99. UNIV 50 is taught by Learning Skills Services staff and features an intensive learning environment. Placement in this course is based on the score on the English Placement Test (EPT). Cr/NC only. Not applicable toward graduation.

## UNIV 102 First Year Experience (3)

Designed to foster a supportive learning community, provide mentoring, enhance academic skills, personal skills (self-awareness, responsibility, relationships with others), and knowledge about campus resources to facilitate successful transition from high school to college. Other aspects covered are choosing a major, career exploration, health and social issues (sexual assault/harassment, alcohol/drug abuse), information competencies, code of conduct, and diversity/multiculturalism. This course is strongly recommended for first semester students.

## UNIV 103A Learning Strategies: Mathematical Thinking (1)

 An academic success course that explores mathematical thinking, problem solving, and personal and cultural approaches to mathematics. Suitable for all students who have not yet passed a GE math course. This course can be retaken for credit up to two times.UNIV 103B Learning Strategies: Study Skills (1) An academic success course that provides in-depth study skills information and practice, including effective time management, test taking, textbook reading, stress management and memory techniques. This course can be retaken for credit up to two times. Cr/NC only.

## UNIV 103C Learning Strategies: Writing (1)

An academic success course that reviews strategies, skills and habits that lead to improved academic writing. This course can be retaken for credit up to two times.

## UNIV 103D Learning Strategies: Academic Reading (1)

An academic success course that introduces strategies to aid comprehension and retention of academic reading skills required across the university disciplines. This course can be retaken for credit up to two times.

UNIV 103S Learning Strategies: Supplemental Instruction (1) Discipline-specific study skills taught in the context of a designated GE course. Consent of instructor required. May be taken three times. Cr/NC only. Corequisite: enrollment in designated GE course.

## UNIV 150A Freshman Year Experience Identity and Global

 Challenges (5)Designed specifically for first-year students at Sonoma State University, provides an interdisciplinary examination of social, political, scientific, and personal aspects of identity (fall semester) and our global connections and responsibilities (spring semester). Through writing, research, and creative assignments, students develop analysis, research, and communication skills vital to success in college. Satisfies GE categories A1 and A3.

## UNIV 150B Freshman Year Experience Identity and Global

 Challenges (4)Designed specifically for first-year students at Sonoma State University, provides an interdisciplinary examination of social, political, scientific, and personal aspects of identity (fall semester) and our global connections and responsibilities (spring semester). Through writing, research, and creative assignments, students develop analysis, research, and communication skills vital to success in college. Satisfies GE categories A1 and A3.

## UNIV 199 Student to Student Lecture Series (1)

## UNIV 237 Career-Life Planning (1-2)

Offers students an opportunity to clarify their interests, values, skills, and lifestyle preferences to provide a foundation for effective career planning. Students use assessment inventories, interactive exercises, and occupational research to expand their understanding of options and plan their education and career paths, and learn job search strategies. Most appropriate for sophomores, juniors and seniors.

## UNIV 238 Foundations of Leadership (3)

This course examines the basic concept of leadership and the elements that comprise its practice in today's society. Through theory, discussion and experiential learning, the course provides the foundational knowledge required for actual leadership opportunities on campus and future employment in the work world. Topics include historical and modern views on leadership; the relationship between service, followership and leadership; motivation; environmental effects on leadership; and ethics and power. Concurrent enrollment in 238B is required.

## UNIV 239 Advising Peer Mentor Seminar (1)

## UNIV 292 Library and Information Research (1-3)

Designed to teach information research skills: how to assess the need for information, how to construct effective search strategies, how to retrieve information, and how to evaluate sources critically. Includes online research practice. Separate sections may focus on specific disciplines: social sciences, humanities, sciences and business, and may be crosslisted when appropriate.

## UNIV 295 Community Involvement Program (1-4)

CIP provides undeclared students the opportunity to explore career possibilities while providing much needed community service. Students may earn credit for volunteer service in a variety of organizational settings that may help them clarify their career goals and to declare a major appropriate for them. Requirements are 30 hours of community service per unit, a minimum of 2 meetings with advisor or faculty sponsor and a final paper. A maximum of 6 units of CIP may be used toward graduation. Cr/NC only.

## UNIV 310 Portfolio Workshop (3)

A mentoring seminar for students re-entering higher education. This orientation course has as its primary goal the connecting of past experiences with present academic opportunities through an academic plan for graduation. Course activities include discussion of learning theory, completion of learning styles inventories, introduction to educational uses of information resources and technology, and the compiling of a portfolio, including an expanded resume, an intellectual autobiography, two learning essays and an individual academic plan. On instructor recommendation, portfolios may be evaluated for degree credit for prior learning through the Faculty Evaluated Prior Learning Program. Prerequisites: completion of GE areas A2 and A3.

## UNIV 375 Study Abroad (12)

Academic programs in institutions outside the country. Enrollment is by permission of the Office of International Programs. Cr/NC only.

## Women's and Gender Studies (WGS)

## WGS 255 Introduction to Queer Studies (3-4)

This interdisciplinary course offers an introduction to the field of Queer Studies by analyzing the role of race, gender, sexuality and nationalism in the social construction of modern gay, lesbian, bisexual, transgender, and queer (GLBTQ) identities. Students also learn of queer theoretical approaches to politics, culture and society. Satisfies GE, category D1.

WGS 280 Women’s Bodies: Health and Image (3)
This course examines research and theory about the health and body image concerns of women across race, ethnicity, sexuality, and class throughout the life cycle. This includes the gender politics of medical research, mental health, body image, reproductive health and chronic illness. Students will be exposed to current theoretical work and writing about the body in society. Satisfies GE, category E.

## WGS 285 Men and Masculinity (3)

This course examines construction of masculinity across axes of race, ethnicity, class, nation and ability. Utilizing a multidisciplinary perspective, this course addresses various theories of manhood and masculinity and the impacts on men's and boys' lives in various arenas such as relationships, family, the media, sports, work, crime, and health. Satisfies GE, category E.

## WGS 301 Gender Studies Lecture Series (1-4)

A weekly lecture series (or occasional workshops) offering presentations and discussions of current issues from feminist and/or queer perspectives. There is usually a semester-long focus on a particular topic. The lectures are open to the community. May be repeated for credit.

WGS 311 Special Topics in Women and Gender Studies (1-4) A variable-topics seminar focusing upon intensive study of issues related to WGS in society. May be repeated for credit.

## WGS 325 Youth: Gender Perspectives (3-4)

This course examines youth, focusing on the complex interconnections of gender, race/ethnicity, social class, sexuality, and other factors in understanding the experiences and social conditions of youth in the U.S., as well as the methodological issues that arise in conducting research on youth. This course requires community service learning.

## WGS 330 Psychology of Women (3-4)

An exploration of the psychology of women, with attention to issues of power and conflict, intimacy and dependence, special concerns in therapy for women, and the impact of race, class, ethnicity and sexual preference on women's psychological development. Crosslisted as PSY 404.

## WGS 350 Gender, Sexuality and Family (3-4)

An exploration of changing ideals and practices of gender, sexuality and family life in the United States, drawing especially on recent feminist scholarship. Topics for reading and discussion will focus on both women and men. Fulfills upper-division GE, category E (The Integrated Person).

## WGS 365 Women's History and Women’s Activism (3-4)

This course will take an activist-historical perspective on the history of American women. We will study historical figures, events, and movements central to the history of feminist activism for equality and social justice. The class will address the politics of writing women into history and documenting the diversity of women's activism.

## WGS 370 Gender in Asian America (3-4)

This interdisciplinary course examines gender, race, class, and sexuality in Asian America. We consider how Asian American women and men fit into debates about sexism and racism in the United States - historically and contemporarily. Topics include Asian American participation in women's/civil right movements as well as popular culture representations.

## WGS 375 Gender, Race and Class (3)

An exploration of the intersection of gender, race, and class in the lives of U.S. women and men through historical approach to the formations of social and political movements, the construction and policing of identify categories, and demands for equality and justice. Satisfies GE, category D1 (Individual and Society, meets Ethnic Studies requirement).

WGS 380 Gender and Social Movements (3) Social movements organized around gender issues and identities are significant sources of social change in modern societies. This course analyzes the structure and dynamics of social movements based on gender, with attention to the roles or organizations, resources, leadership, recruitment, commitment, values, ideology, political culture and countermovements. Case studies will emphasize the women's suffrage movement, the women's peace movement, the feminist movement that began in the 1960s as well as its offshoots and countermovements, the gay and lesbian rights movement, and recent men's movements.

## WGS 385 Gender and Globalization (3-4)

This class will use an interdisciplinary approach to explore how gender, race, class, sexuality, nation, and colonialism intersect locally and globally and to understand how gender shapes the lived realities of women world-wide. We will frame our analyses within an understanding of the processes of globalization and global communities.

## WGS 390 Gender and Work (4)

This course explores intersections of gender, race, class, immigration and nation within the U.S. labor market. We examine situations facing workers across economic sectors ranging from professionals to service sector labor. Topics may include: juggling work and family, discrimination/harassment, welfare reform, globalization, and activism/resistance to workplace challenges. Prerequisite: WGS 280, 285, 350, 375 or instructor consent.

## WGS 395 Community Involvement Program (1-4)

The purpose of CIP is to encourage student involvement in the community. Units may be earned for work related to WGS. Cr/NC only.

## WGS 399 Student Instructed Course (1-4)

An introductory or advanced course designed by a senior or graduate student and taught under the supervision of faculty sponsor(s). Cr/NC only.

## WGS 425 Feminist Research Methods (3-4)

A feminist critique of traditional methods of constructing knowledge and research practices and a discussion of gender-inclusive research strategies. Students will be given instruction in library and electronic information retrieval.

## WGS 440 Sociology of Reproduction (4)

An exploration of sociological perspectives on human reproduction. Topics include reproduction and gender identity, the social implications of reproductive technologies, historical and contemporary perspectives on normal pregnancy and childbirth, the cultural context for breastfeeding, and the politics of reproductive rights and choices in the United States. Crosslisted with SOCI 440.

This interdisciplinary course offers advanced work in queer studies by looking at the production of theories about same-sex sexualities in history, culture, and politics. The course presents queer theory in conjunction with critical race theory, feminist theory and post-colonial studies.

## WGS 475 Contemporary Feminist Theory (4)

This course examines both historical and contemporary trends in feminist theory. Students examine how feminist theory might address the complex relationship between race, ethnicity, gender, sexuality, class, and nation as they relate to the production of knowledge, the implementation of theory and practice, and social change/activism. Prerequisite: WGS 280, WGS 285 or WGS 350, or by instructor's consent.

## WGS 485 Senior Seminar (4)

This course provides WGS students an opportunity for advanced study on a special topic each semester (determined by instructor). The seminar format allows students an intensive experience and heightened responsibility for course content. The course should be taken during the student's senior year. Prerequisite: WGS 475.

## WGS 492 Syllabus Design (1)

Students work on an individual basis with a faculty member to develop reading materials, lecture and discussion topics, and assignments appropriate to the teaching of a specific student-taught course in women's and gender studies. Student-taught courses must be approved by the coordinator, and students must follow established procedural guidelines for teaching in the women's and gender studies program. Most student teachers are required to take WGS 492 before teaching, and WGS 493 while teaching.

## WGS 493 Teaching Supervision (1)

Students acting as teaching assistants or student-teachers enroll in this to gain professional skills development with a faculty member.

## WGS 495 Special Studies (1-4)

Upper-division students may elect to do an independent research or action project under the direction of a women's and gender studies faculty member.

## WGS 499 Internship (1-4)

Supervised training and experience for advanced students in community agencies concerned with women's and men's issues and gender change. Student teaching of a student-taught university course is another form of internship. At present we offer credit (and not a grade) for student teaching and off-campus projects. Internships may be paid.

## WGS 500 Seminar in Feminist Theory and Research in Social

Sciences (3)
A survey of feminist critiques of social science theory and research in various disciplines (depending on student interest) - anthropology, history, political science, psychology and sociology. A survey of feminist attempts to reformulate and transform social science theory and methods, including debates and disagreements among feminist scholars. Requirements will include an individual research project and analysis. Prerequisite: at least one course in a social science and at least one course that focuses on women or gender (course may be at graduate or undergraduate level).

## ACADEMIC CENTERS, INSTITUTES, AND PROJECTS

## Anthropological Studies Center

ASC Building 29
(707) 664-2381

Fax: (707) 664-4155
www.sonoma.edu/asc
e-mail: adrian.praetzellis@sonoma.edu

## Director

Adrian Praetzellis
The Anthropological Studies Center undertakes activities that benefit the students of Sonoma State University, scholarship in the field of historic preservation, and the community at large.
The Center fulfills its mission in education, research, and public service by creating the opportunity for SSU students to learn realworld skills in historic preservation through internships and the Center's professional apprenticeship program; by maintaining an Archaeological Collections Facility in which millions of artifacts are available for students and scholars to study; and by operating an Office of Interpretive and Outreach Services that provides the public with information about archaeology and historic preservation.

Since 1974, nongovernmental organizations and state and federal agencies have awarded ASC more than $\$ 45$ million in grants and contracts. The Center, which maintains more than 5,000 square feet of laboratory and administrative office space, has a staff of 15 salaried professionals and 25 part-time student employees. Chancellor Charles Reed has described the Center as "one of the finest examples in the CSU system of... active learning and student involvement in faculty-directed research."

## Center for Community Engagement

1102 Schulz Information Center
(707) 664-3202
e-mail: cce@sonoma.edu

## Coordinator

Merith Weisman
The Center for Community Engagement (CCE) advances communitybased programs on the Sonoma State University campus. CCE supports faculty in developing community-based teaching that integrates academic theory with community service and research that is inclusive of community partners and students to address local problems. By incorporating these projects into the curriculum, we teach students to be active citizens and that the theories taught in the classroom do apply to real-world issues.

Central to the mission of the CCE are several goals:

- To integrate service-learning and community-based research into the curriculum;
- To support and promote high quality, reciprocal community university partnerships that are firmly rooted in the curriculum; and
- To foster the development of a civic perspective in education.


## Center for Regional Economic Analysis

Stevenson Hall 2042B
(707) 664-4256
www.sonoma.edu/sbe/sbe-centers-and-institutes/economicdevelopment/
e-mail: eyler@sonoma.edu

## Director

Robert Eyler
The Center for Regional Economic Analysis (CREA) at SSU provides research, data, and analysis for local industry and governments. Its mission is to produce and disseminate new information in the general area of economic research, and in the specific areas of business economics, economic development, regional economics, and policy. The CREA serves the business community; federal, state, and local governments; individuals; and SSU. A special emphasis is placed on businesses and governments in the SSU service area.

## Center for Research and Education in Science and Technology (CREST)

Darwin Hall 115
(707) 664-2171

Fax: (707) 664-3012
www.sonoma.edu/scitech/crest

## Director

Don Estreich, Department of Engineering
The Center for Research and Education in Science and Technology (CREST) was established in 2002 to help the School of Science and Technology engage in education and research with off-campus institutions and industries. CREST encourages faculty, student and community partnerships and facilitates the collaborative use of laboratories in the Cerent Engineering Complex by local companies. The Center's goal is to enhance the educational experience for students and to provide faculty in the School of Science and Technology with research opportunities.

## Center for Teaching and Professional Development

Schulz 1104
(707) 664-CTPD (2873)
www.sonoma.edu/ctpd/
e-mail: ctpd@sonoma.edu
Director
Brett Christie
The Center for Teaching and Professional Development is funded from the budget for academic programs and is developed by University faculty to support professional development, especially excellence in teaching. It is operated by one faculty member and offers a variety of services.
Workshops and programs are designed to support faculty in areas such as instructional technology, innovative curriculum development, classroom management, and professional development. The Director consults with faculty one-on-one and in groups to develop effective tools and strategies for the enhancement of teaching. The Director is also available for making classroom visits to provide feedback on teaching. The Center directs the orientation process for new faculty during their first years at the University and serves as a clearinghouse for dissemination of professional literature and information to faculty.

## Center for the Study of the Holocaust and Genocide

Stevenson Hall 2081
(707) 664-4296
http://www.sonoma.edu/holocaust/center
e-mail: centerh@sonoma.edu

## Director

Myrna Goodman
The Center for the Study of the Holocaust and Genocide is an academic institute constituted in February 1987 to provide education on the origins, nature, and consequences of the Holocaust. Recently the Center has broadened and expanded its focus to include the study of other historical and modern genocides. The primary activities of the Center include the organization and coordination of the annual, nationally recognized Holocaust Lecture Series, which is offered as an upper division GE course, Sociology 305: Perspectives on the Holocaust and Genocide. The Center also develops and distributes Holocaust resource materials (publications, electronic media, etc.) for campus, school, and public use, and cooperative efforts with a community-based group, the Alliance for the Study of the Holocaust, to provide Holocaust education in the SSU service area schools.

The Center promotes research on Holocaust themes and has sponsored conferences, film series, author presentations, and teacher training seminars. In collaboration with the Schulz Information Center and other regional libraries, the Center enhances the collection of books, videos, and other descriptive materials. The Center also supports commemorative events and the presentation of artistic and historical exhibits and offers access to information on the Holocaust and genocide across a broad range of thematic and disciplinary approaches.

## SSU Field Stations and Nature Preserves

School of Science and Technology
Darwin Hall (Galbreath Lobby) 100A
(707) 664-3416
www.sonoma.edu/preserves
email: ssu.preserves@sonoma.edu

## Staff Preserves Director

Claudia Luke
email: claudia.luke@sonoma.edu
SSU Field Stations \& Nature Preserves manages two natural areas in Sonoma and Mendocino Counties that enable investigations and learning in North Coast environments. Administered by SSU Academic Affairs the Preserves are research and educational resources that provide fundamental first-hand learning experiences for students and faculty in the liberal arts and sciences from all Schools on campus. SSU students and faculty visit the Preserves on class field trips or as part of independent projects. A growing number of scientists from other universities are also engaged in projects at the Preserves, providing opportunities for collaborative education and research projects with SSU students and faculty.

Preserves staff pro-actively seek opportunities for collaborative interdisciplinary initiatives among faculty, students, and external universities, agencies and organizations. Specifically, we pursue opportunities that can deepen the educational experiences of SSU students to include field investigations, community-based environmental service learning, and professional work experiences. Examples of Preserve programs available for student participation include the Osborn environmental education program which trains SSU students to lead elementary school field trips, the Galbreath Field Stations facilities development plan which provides opportunities for students and faculty to engage in all stages of facilities design, and land management planning initiatives which give students first-hand experience in developing and implementing natural resource management projects.

The Preserves Staff Director is based on campus. A Preserves' Program Coordinator reviews applications for Preserve use and coordinates activities at the Preserves from the office at the Osborn Preserve. The Preserve employs students each year to undertake management, education, and monitoring needed to run the Preserves.

Fairfield Osborn Preserve: Located 7 miles east of campus on Sonoma Mountain, the Fairfield Osborn Preserve is recognized for the diversity of habitats occurring within only 461 acres ( 3 woodland, 4 aquatic habitat, 1 shrubland, and 2 grassland types), highly erosional geology, and the seminal historical work on aquatic insects in perennial and fishless Copeland Creek. Preserve facilities include on-site offices, meeting rooms, a residence, and weather monitoring equipment. The Preserve was named in honor of the pioneer ecologist Fairfield Osborn by the Roth family when they donated the Preserve to The Nature Conservancy in 1972. The Preserve has been owned and managed by SSU since 1998.

Galbreath Wildlands Preserve: The 3,670-acre preserve is located 60 miles north of campus in southern Mendocino County. The rugged
slopes of the Galbreath Preserve predominantly support mixed hardwood and evergreen woodlands. Rancheria Creek bisects the Preserve and supports steelhead and occasionally coho salmon populations. The Galbreath Preserve was donated to SSU in 2004 to honor the memory of Fred B. Galbreath, a well-known San Francisco businessman, rancher, and nature enthusiast.

## Center for Interdisciplinary Geospatial Analysis (CIGA)

Stevenson Hall 3032
(707) 664-3067

Fax: (707) 664-3332
http://www.sonoma.edu/geography/ciga

## Director

Matthew Clark
(707) 664-2558

Email: matthew.clark@sonoma.edu
The mission of the Center for Interdisciplinary Geospatial Analysis (CIGA) is to enable and promote the application of geospatial technology to social and environmental problems through research, education, and community service. The Center seeks interdisciplinary collaboration among campus and external researchers, students, and other organizations in projects that involve geographic information and spatial analysis at local to global scales. To accomplish these goals, the Center provides computer software and data resources; Geographic Information System (GIS) and remote sensing expertise and consulting services; educational courses; and community outreach. Courses in the Department of Geography and Global Studies provide a solid foundation in geospatial science. Students are given a unique opportunity to broaden and refine their education by working on realworld problems in GIS research projects and service contracts.
The Center has a well-equipped research computer lab for GIS analysis, image processing, and digital cartography.

Past projects conducted by CIGA include analyzing the impact of the global economy on natural and human systems at multiple spatial scales in Latin America and the Caribbean; developing geographical models to predict the spread of sudden oak death; mapping trails in local parks; digitizing cultural resource and timber harvest plans from archival maps; using high-resolution aircraft imagery for natural resource assessment of regional state parks; and modeling spatial patterns in the abundance of invasive weeds.

## Hutchins Institute for Public Policy Studies and Community Action

Rachel Carson Hall 34
(707) 664-3185
www.sonoma.edu/hutchins/pages/hipp/

## Director

Francisco H. Vázquez
e-mail: francisco.vazquez@sonoma.edu
The mission of the Hutchins Institute for Public Policy Studies and Community Action (HIPP) is to promote discussions about environmental and socioeconomic issues on and off campus, and to facilitate research and projects on these topics.

In keeping with this mission the Hutchins Institute sponsors the following programs:

- A liberal studies degree completion program featuring Saturday seminars and weekly online discussions. Students remain in the same cohort for four semesters in the interests of creating a vibrant learning community;
- Action for a Viable Future: a master's program emphasizing the interrelationships among three themes: ecological issues, economic/social justice issues, and the moral and psychological dimensions of change. The action projects completed by Master's students add a public policy dimension to the Center;
- The Association of Hutchins Alumni (AHA): a network of individuals interested in lifelong learning, featuring occasional seminar reunions and the Alumni Book Club;
- Northern California Earth Institute: to promote discussion groups based on a series of five group-study guides on various topics relating to sustainability (on-going); and
- Roseland Redevelopment Project: A project to turn the Roseland Shopping Center located on Sebastopol Road (to Dutton Avenue) into a three-story building with low-income housing on the third floor, offices on the second floor, and businesses on the first floor, and to include in this urban development a multicultural center and a plaza with a kiosk and gardens (on-going).

Previous projects include:

- On March 30, 2009, HIPP submitted a proposal to the U.S. Department of Energy for a project under the Hutchins Institute: Northern California Alternative Fuels Training Consortium. It was written by Shirley Johnson, a graduate from the Hutchins Master's Program Action for a Viable Future and Dr. Vazquez agreed to serve as the Principal Investigator. It will be resubmitted in 2010;
- College Assistance Migrant Program (CAMP): recruitment and support of first year college migrant or seasonal students at Sonoma State University, Santa Rosa Junior College, and Napa Valley Community College (2002-2007);
- Center for Information and Research on Civic Learning and Engagement (CIRCLE): a research project to determine the levels of civic engagement among Latino high school students (2002-2003); and
- The Student Congress: a high school-based project that promotes Socratic seminars among underserved high school students (1994-2000).

HIPP as a clearinghouse: The Hutchins Institute invites the submission of proposals to promote activities that are in keeping with its mission. Anyone interested in participating in any of the listed current activities or wishing to propose new projects should contact the Director.

## Institute for Community Planning Assistance

Rachel Carson Hall 20-A
(707) 664-3145

Fax: (707) 664-4202
www.sonoma.edu/ensp/centers_preserves/index.html\#icpa

## Director

Thomas Jacobson
e-mail: tom.jacobson@sonoma.edu
The Institute for Community Planning Assistance (ICPA) is a research and community service center sponsored by the Department of Environmental Studies and Planning. Staffed by SSU faculty and students, ICPA was established in 1984 to meet the needs of public agencies seeking affordable, often labor-intensive, planning studies, community surveys, public outreach efforts, and other projects. ICPA has also offered training programs to local governments on a variety of planning topics. Since 2009, ICPA has housed Sonoma State's Center for Sustainable Communities (CSC). The CSC merges the historic functions of ICPA and SSU's Environmental Technology Center. The Environmental Technology Center was originally established to demonstrate the applicability of green building technologies and has filled this role for local governments, builders, and designers, providing a wide variety of support and training services for local non-profits, government agencies and other organizations. While retaining its leadership role in green building, the CSC supports a broader range of local sustainability efforts, playing to Environmental Studies and Planning's curricular, research, and community service strengths - energy management and design, community and environmental planning, environmental conservation and restoration, water quality, environmental education - and ICPA's long history of working with local governments and community groups. The CSC's activities are focused on such sustainability topics as:

- Local government approaches to reducing green house gas emissions
- Green building
- Land use planning and public health

The CSC works with communities to develop sustainability policy documents and implementation programs, and provides training on sustainability topics for local governments and other organizations.

## Migrant Education Advisor Program

Nichols 241
(707) 664-2748
www.sonoma.edu/counseling/MEAP.pdf

## Director

Giselle Perry
e-mail: gperry@bcoe.org or perryg@sonoma.edu
An urgent need exists for role models with knowledge of challenges encountered by migrant students and for advocates sensitive to their social and academic needs. Research highlights three critical areas of need:

1. Lack of sufficient school counseling services, particularly ethnically and linguistically diverse counselors;
2. High state and national high school dropout rates among migrant students; and
3. Disproportionately low numbers of migrant students enrolling in four year colleges.

The Migrant Education Advisor Program (MEAP) is a California State University collaborative project responding to these needs.

MEAP Goals:

- Promote bilingual (bicultural) college undergraduates and Counseling M.A. program graduate students as role models and future school counselors and educators, offering paid work experience and training as paraprofessional school advisors;
- Provide supplemental academic advising for migrant/EL and at-risk students to ensure high school graduation and attainment of skills for lifelong success and pursuit of postsecondary education or vocational training;
- Provide career guidance so that migrant/EL and at-risk students develop career and educational goals;
- Support social, emotional, and academic growth of students served through fostering of self-esteem, cultural pride, and leadership development; and
- Act as liasons for schools in order to provide much-needed outreach and education to migrant and English-Learner parents in order to assist them in their support for the education of their children.


## North Bay International Studies Project

Rachel Carson Hall 10A
(707) 664-2409

Fax: (707) 664-2053
www.sonoma.edu/projects/nbisp/

## Director

Miriam Hutchins
e-mail: miriam.hutchins@sonoma.edu
The North Bay International Studies Project (NBISP) is one of the grant-funded, statewide subject-matter projects that provide pedagogical and curriculum resources in History/Social Science and International Studies to the University and K -12 educational community. The Project offers workshops, seminars, lectures, and summer institutes aligned with the California State Standards for history/ social science, including content programs in international studies, world and American history, teaching methodologies, and leadership development. All teachers participating in NBISP programs examine what constitutes best classroom practice in history/social science and the multifaceted roles in which teachers are engaged as facilitators of learning, researchers, and professionals. NBISP programs are also open to student teachers.

## Osher Lifelong Learning Institute

## Stevenson 1012

(707) 664-2612
www.sonoma.edu/exed/lifelong

## Director, New and Non-Credit Programs

Julie Barnes
e-mail: julie.barnes@sonoma.edu
The SSU Osher Lifelong Learning Institute (OLLI) has been offering courses for people " 50 and better" since fall 2001. The goal of the Institute is to bring high quality educational and community experiences to the senior community in Sonoma County. The Institute strives to enrich the lives of the senior community and maintain their interest in a variety of subjects and in the social networks that they create from interacting with their fellow students. OLLI courses range throughout the natural sciences, social sciences and humanities, are taken for the joy of learning, and emphasize no grades, no tests, and no required reading. Students enroll in up to four courses in three seven-week sessions (fall, winter and spring). Many of the member/students at the SSU campus have been taking courses since its first year.
OLLI expanded to the Oakmont Campus in Santa Rosa in winter 2007 and offers three six-week courses each session to a growing number of residents. The OLLI community that has formed at Oakmont has become an important and attractive part of the Oakmont experience. In fall 2009, OLLI opened up a second satellite campus at Vintage House in Sonoma where two six-week courses are offered each session.

The OLLI at SSU played the leading role in developing the statewide Osher network of Lifelong Learning Institutes, which, in turn, grew to over 120 programs nationally. The Osher Foundation provides financial assistance to the institutes with the long-term goal of establishing sound, viable, and sustainable learning programs for people 50 and better across the nation.

## Project Censored

Rachel Carson Hall 66
(707) 664-2500

Fax: (707) 664-3920
www.projectcensored.org

## Director

Benjamin Frymer
Founded by Carl Jensen in 1976, Project Censored is a media research program working in cooperation with the Media Freedom Foundation, a 501 (c)(3) off-campus organization. Project Censored's principle objective is training of SSU students in media research and First Amendment issues and the advocacy for, and protection of, free press rights in the United States. Project Censored has trained over 1,500 students in investigative research in the past three decades.
Through a partnership of faculty, students, and the community, Project Censored conducts research on important national news stories that are underreported, ignored, misrepresented, or censored by the U.S. corporate media. Each year, Project Censored publishes a ranking of the top 25 most censored nationally important news stories in the yearbook, Censored: Media Democracy in Action, which is released in September. Recent Censored books have been published in Spanish, Italian, and Arabic.
The Project works in cooperation with SSU academic classes in the Hutchins School, where students earn credit for their research and participate in writing the annual yearbook. Additionally, Project Censored sponsors and supervises over 60 student interns a year who do in-depth investigative research, sponsor campus events and speakers, and organize an annual national Media Accountability Conference. Students also participate in writing the Project Censored quarterly newsletter (circulation 9,000 ) and assist with maintaining the Project Censored website, www.projectcensored. org, which receives over one million views a month all across the globe.
Project Censored is administered through the SSU School of Arts and Humanities and the Hutchins School of Liberal Studies and works in cooperation with financial support from the SSU Instructionally Related Activity Fund and the Media Freedom Foundation.

## Sonoma Film Institute

Ives Hall 63
(707) 664-2606
www.sonoma.edu/sfi

## Director

Eleanor Nichols
The Sonoma Film Institute brings to the University a broad variety of films - from silent film to the avant-garde, from contemporary American film to films from the third world - designed to expand audience awareness of film. A fun and meaningful forum for education, understanding and awareness, the Sonoma Film Institute introduces audiences to the art of filmmaking and celebrates both the differences and the shared values of the many cultural groups that make up our global community. The program aims to develop media literacy, broaden insights into other cultures, enhance foreign language aptitude, develop critical thinking skills and inspire a lifelong appreciation of cinema.

## Sonoma State American Language Institute

Stevenson 1038
(707) 664-2742

Fax: (707) 664-2749
www.sonoma.edu/exed/ssali/

## Director

Helen Kallenbach
e-mail: SSALI@sonoma.edu
A program of Extended Education, Sonoma State American Language Institute (SSALI) provides intensive language instruction to students, professionals, and others who need to learn English quickly to meet academic, job-related, and social needs.

Since 1979, SSALI has been providing challenging classes taught in a supportive and family-like environment. In addition to serving the needs of foreign students on F-1 visas, the SSALI program is ideal for residents, international employees, trainees, and their spouses and adult children on $\mathrm{B} 1, \mathrm{~J} 1, \mathrm{H} 1 \mathrm{~B}$, or H 4 visas, who may study part-time. Most students can study up to 24 hours per week in grammar, composition, reading, and oral communication, as well as elective courses such as TOEFL preparation, American culture, business, pronunciation, conversation, and vocabulary. SSALI students enjoy a variety of extracurricular activities, including holiday celebrations, sporting competitions, and excursions to nearby places of cultural and social interest.

Short-term contracts are also available by special arrangement. For complete details on the SSALI program, contact the Institute or access its webpage.

## Sonoma State University Wine Business Institute

Stevenson 2027
(707) 664-2260

Fax: (707) 664-4009
www.sonoma.edu/winebiz

## Director

Linda Nowak
e-mail: linda.nowak@sonoma.edu
Created through a partnership between the University and the wine industry, Sonoma State's Wine Business Program is the only university program in the United States to focus exclusively on the business dynamic within the wine industry. While other universities have programs that emphasize grape growing and wine making, SSU's program offers a specialized undergraduate and graduate curriculum concerned with the business challenges currently facing the wine industry. For the wine industry professional, the University offers its professional development courses. These classes are designed specifically to improve the range of skills for those already employed within the wine industry.

The Jean and Charles Schulz Information Center
library.sonoma.edu
LIBRARY ADMINISTRATION
(707) 664-2397

LIBRARY HOURS
(707) 664-2595

DEAN
Barbara Butler

## Library Faculty

## Karen Brodsky

Sheila Cunningham
Mary Dolan
Paula Hammett
Joe J. Marquez
Dayle Reilly
Rick Robison
Throughout history, libraries have been at the center of cultural and intellectual life, providing a unique place for discovery. The University Library in the Jean and Charles Schulz Information Center continues this tradition through the development of innovative programs, access to print and electronic resources, and technology designed to enhance the information seeking process.

Completed in August 2000, the Schulz Information Center offers the Sonoma State community a beautiful environment for pursuing academic endeavors. The many unique features of the three-story, 215,000 square foot building include wireless technology, a 24-hour computer lab, art gallery space, a cafe, open terraces, natural and ambient lighting, and much more. In addition to open shelving, the Information Center has a state-of-the-art Automated Retrieval System (ARS) that provides quick access to items housed in a computermanaged shelving system.

## Collections and Services

The University Library has a collection of around 600,000 print volumes, with approximately 5,000 new titles added each year, in addition to over 25,000 e-books. Current periodical subscriptions number over 32,000 in both print and electronic formats. The multimedia collection, including DVDs, CDs and other media formats, includes about 50,000 items. The regional collection contains many current and historical books, local documents and media materials relating to the North Bay. The Library's special collections include the Jack London Collection and the papers of well-known Press Democrat columnist Gaye LeBaron. North Bay digital collections provide full text and images relating to Sonoma County history, the environment, the 1906 earthquake and lime kilns. The University Archives are also housed in the Library.

The Library enjoys extensive borrowing agreements which provide speedy access to the materials held by institutions throughout the state and the country.

The Information Commons on the first floor is a multi-functional location providing students a unique gathering space for group study, research, writing, and pursuing other academic tasks. The Information Commons provides extensive access to the types of technology needed by today's students including productivity software and presentation software such as PowerPoint and iMovie.

Reference services on the second floor range from quick answers for simple questions to advanced research consultations with librarians. A 24/7 chat reference service and an email-based "Ask a Librarian" service provide additional help.

The Library Teaching Center (LTC) on the second floor is home to the Library's instruction program. Instruction services include workshops and training (both in person and online) in library research and resources, specialized sessions for specific classes at the request of instructors, and targeted sessions for entering freshmen. An interactive multimedia development lab, teaching labs and open study space are also part of the LTC.

The Multimedia Center, also on the second floor, houses the nonprint collection, such as sound recordings, videocassettes, DVDs, and the equipment to use these materials. Group viewing rooms are available.

The third floor houses most of the University Library's circulating collection, special collections and University Archives.

Computers and study spaces are available throughout the University Library, providing areas for quiet study, group work, relaxed reading \& listening, group viewing, and meeting places.

The Information Center was made possible through a generous gift from Jean and Charles Schulz, the Rancho-Cotati Unified School District, private donations, and the support of California taxpayers.

## INFORMATION TECHNOLOGY

Jean and Charles Schulz Information Center 1000
(707) 664-2346

## ACTING CHIEF INFORMATION OFFICER

## Jason Wenrick

Information Technology provides the spectrum of services needed to deliver quality academic and administrative technology. SSU/IT works with:

- The faculty and students to provide Academic Computing and Instructional Technology in support of teaching and research; and
- The administration and staff to provide Administrative Information Systems for the management of finances, human resources, student records, and other mission critical needs.

SSU/IT brings together teams of expertise across a range of technologies to provide the necessary guidance and leadership to fully implement successful efforts in instructional and administrative technology. SSU/IT specifies campuswide standards and provides consulting in order to ensure all technology systems are costeffective and architecturally sound.
SSU/IT provides e-mail, webpages, multimedia equipment, video production, instructional technology software, videoconferencing facilities, high-tech classrooms, and media services preview rooms. A fully staffed help desk provides consulting in the use of information technology. Consultants are available by phone, 664-HELP; e-mail, helpdesk@sonoma.edu; or in person, Schulz 1063.
Workstation support is provided to faculty and staff for their office-based computers. SSU/IT provides assistance to faculty in developing online, multimedia content.
Computer labs with a wide range of software are available to students, faculty, and staff. Lab consultants may be reached at 664LABS. The 24-Hour Lab is open continuously during the semester. Other labs may be scheduled for classes. Schedules are posted outside each lab and on the Web at www.sonoma.edu/it/labs.
SSU/IT operates a high-speed campus and residential network with more than 20,000 nodes that provide access to resources from the campus and across the Internet. SSU/IT also operates a modern phone system with more than 4,000 lines for the campus and residential community.
SSU/IT is responsible for the technical operation of administrative information systems for human resources, finance, and student information systems.

Users of Sonoma State University's network must adhere to the laws and policies governing computer use (see www.sonoma.edu/ it/get_connected/rules.shtml).

For more information see www.sonoma.edu/it.

## STUDENT SERVICES

Once you have decided to attend Sonoma State University, how do you make sure that you take full advantage of your University experience? Answer: Get involved!
At Sonoma State University, we are committed to enhancing the quality of life for all students. The University offers a wide range of student services and co-curricular programs and activities to support our goals of student satisfaction, retention, and graduation. We encourage you to become familiar with these services and programs that enrich your college experience. They are provided by the professional staff in the division of Student Affairs and Enrollment Management.
Student Affairs and Enrollment Management includes the following units, all of which are committed to delivering high quality student services and student activities.

- Admissions
- Advising Services
- Career Services
- Educational Opportunity Program
- Associated Students, Inc.
- Center for Student Leadership, Involvement and Service
- Children's School
- Counseling and Psychological Services
- Disability Services for Students
- Educational Mentoring Teams
- International Services
- Learning Skills Services
- New Student Orientation and Family Programs
- Residential Life
- Student Conduct
- Student Health Center
- Student Records
- Testing Services
- Tutorial Center
- University Support and Preparation Services
- Veteran's Services
- Outreach


## Student Affairs and Enrollment Management

Salazar Hall 1018
(707) 664-4237
www.sonoma.edu/saem/
VICE PRESIDENT

## Mission Statement

The mission of the Division of Student Affairs and Enrollment Management is to facilitate the recruitment, development, retention and graduation of all students through high-quality educational and out-of-classroom experiences, programs and support services.
The programs and activities offered through this division aim
to cultivate learning and facilitate growth of students by providing opportunities and support to develop as intellectually curious and knowledgeable critical thinkers and problem solvers. The division offers opportunities for students to explore and challenge their own beliefs, values and ethics as individuals and within their communities. In addition, the programs and support services of SAEM offer students the prospect to develop multicultural competencies that will develop themselves and their communities.

The Division of Student Affairs and Enrollment Management strives to provide an environment in which students can develop a sense of autonomy and independence and are challenged to take accountability for one's self and actions. SAEM also offers opportunities for students to develop a sense of connection to others through a variety of meaningful, respectful relationships, as well as explore and challenge their own beliefs, values and ethics. Finally, the division offers students the prospect to develop multicultural competencies that will develop themselves and their communities. To this end, SAEM provides a continuum of activities, programs, and services that begin before the students enter the University and continue beyond graduation. Descriptions of the activities, services, and programs within Student Affairs and Enrollment Management follow.

## Admissions

Salazar Hall 2030
(707) 664-2778
http://www.sonoma.edu/ar/

## Student Outreach

Salazar Hall 1010
664-3029
http://www.sonoma.edu/ar/prospective/
Under the direction of the Office of Admissions, the Student Outreach Office provides several services to prospective students. The Student Outreach Office coordinates student recruitment, houses our campus tour programs, provides preadmissions information, operates the East Bay Initiative Program, and plans various campus events such as Seawolf Day, the North Bay College Fair, phone campaigns, and various counselor conferences.

## Reentry Services

(707) 664-3029

Sonoma State University encourages all potential students in the pursuit of educational goals and personal and professional development.

Mature learners who have been away from the academic environment for some time and wish to return to school should contact the Student Outreach Office, (707) 664-3029, for information about admissions criteria.

## Advising and Career Services

Salazar Hall 1070
(707) 664-2196

## Advising Services

www.sonoma.edu/advising/
Advising Services helps students with academic transitions by answering questions and concerns about courses, GE requirements, and decisions regarding declaring or changing majors. Advisors are responsible for undeclared and Pre-Nursing majors. All other majors receive advising from their academic departments. Students who want to change their major can become undeclared and get assistance with GE requirements and choosing their new major. Advising Peer Mentors are available to help students from all majors with GE information, online student records, registration, career resources and resume critiques.

## Career Services

www.sonoma.edu/career/
Career Services at Sonoma State University assists students in their transition from their academic world into their careers. We assist SSU students in developing their career strategy by providing comprehensive resources, career programming, and advising on career development, internships and employment.

Career resources include Seawolf Jobs, SSU's online job database. We also provide our e-newsletter, CareerConnections, Career Peer Advising, career assessments, workshops, and various networking/recruitment opportunities. In the Spring, Career Services holds the annual career and summer job fair, where students have the opportunity to network with employers, find internships and obtain full-time or part-time positions.

## Educational Opportunity Program (EOP)

Salazar Hall 1070
(707) 664-2427
www.sonoma.edu/eop/
The Educational Opportunity Program (EOP) is charged with improving access and retention of historically low-income and educationally disadvantaged students who have the potential to perform and succeed in the California State University. Beginning with students' admission to the University, advisors provide academic, career, and transitional advising to EOP students. Advisors assist students with concerns regarding housing, financial aid, and balancing college with personal life demands while meeting graduation requirements. Both first-time freshmen and transfer applicants are considered for EOP. Students must file for FAFSA (Free Application for Federal Student Aid) to be considered for EOP. Students who are admitted to EOP will be considered for an EOP Grant.
Students who wish to apply to the EOP can apply through CSU
Mentor, http://www.csumentor.edu/. Check the EOP Interest on the Undergraduate Application and complete the EOP Application on the CSU Mentor website.

First-time freshmen who are admitted to EOP participate in the
week long residential Summer Bridge Program and in the EOP Academy during their freshman year.

## EOP Academy

The Educational Opportunity Program (EOP) Academy is designed to provide academic and social support for our incoming EOP Firsttime Freshmen (FTF) through the creation of a learning community. Incoming students will enroll in a block of classes with approximately 20 other EOP FTF. It has been demonstrated that students taking part in this type of learning community tend to adapt more quickly to the challenges of college. They form a connection to the University, develop a peer support group, and receive assistance from their faculty more quickly and more effectively than do similar students who have not participated in the Academy program. During their second semester at Sonoma, EOP Academy students continue to take a group of linked classes organized for them.

## EOP Summer Bridge Program

The Summer Bridge Program at Sonoma is a one-week residential program during the summer designed to facilitate the successful transition of Educational Opportunity Program students to the University setting. This transition process is developmental in nature and includes personal, social, and educational areas. All incoming EOP first-time freshmen (FTF) attend Summer Bridge.

## Alcohol and Drug Education Program

Salazar Hall 1018
(707) 664-2850
http://www.sonoma.edu/saem/adep.shtml
The Alcohol and Drug Education Program (ADEP) at Sonoma State University is a program designed to promote the well-being of all members of our educational community by providing educational programs, educational interventions, and referral services for students, staff, and faculty. In addition, we are committed to creating an environment within SSU and the surrounding community that supports informed, lawful, and safe decision-making regarding alcohol and other drug use.

## SAFE Peer Education

SAFE Peer Educators offer peer-to-peer education to the campus community on health and safety issues including responsible alcohol use, sexual assault prevention, and healthy sexuality/HIV/ STI's. SAFE Peer Educators facilitate classroom discussions and plan campus and community health-related special events including Alcohol Awareness Week, World AIDS Day, SAFE Spring Break, Take Back the Night, and Clothesline project.

Studies show that people are more likely to hear and understand messages that may change attitudes and behaviors if they believe the messenger is similar to them in lifestyle and faces the same concerns and pressures. In student groups, researchers found that they relied on their peers as their most important sources of information about many topics. To learn more about becoming a peer educator, contact SAFE at safe@sonoma.edu
www.sonoma.edu/campuslife/safe

## Associated Students, Inc.

Student Union Building
(707) 664-2815
www.sonoma.edu/as
The Associated Students, Inc. (ASI), is a student run auxiliary organization of Sonoma State University. The mission of the Associated Students, Inc. is to enrich the lives of all Sonoma State University students. ASI accomplishes this mission by promoting student interests through advocacy and representation. As a corporation owned and governed by students, ASI supports a variety of programs, services, and organizations to enhance the student experience at Sonoma State University.

Programs offered by the Associated Students, Inc. include community service and service-learning opportunities through Join Us Making Progress (JUMP), co-curricular events and activities through Associated Students Productions (ASP), an early childhood education and child development laboratory through the Children's School, as well as leadership, involvement and opportunities for student governance through Student Government.
ASI also provides several services to students including student club and organization funding, student club and organization accounting services, Transitional Housing, the Short-Term Loan program and student health insurance for students of Sonoma State University.

## Center for Student Leadership, Involvement and Service (CSLIS)

Student Union Building, ${ }^{\text {st }}$ floor
(707) 664-4323
www.sonoma.edu/CampusLife/
cslis@sonoma.edu

## Leadership Programs

CSLIS serves as the hub of leadership programs at SSU. Whether you're a student new to campus or about to graduate, we offer a wide variety of leadership development programs serving all students at all levels. Activities range from off-campus weekend intensive leadership retreats to workshops and programs on various topics relating to personal growth and leadership development. Students who choose to enroll in UNIV 238 - Foundations of Leadership are encouraged to apply for a number of important student leadership positions, including Peer Mentors for the First Year Experience Teams, Orientation Leaders, Summer Bridge Leaders, and Community Service Advisers for the Residential Life Community. Additionally, CSLIS collaborates with other campus entities to support a wide range of programs and services both on-campus and in the community.
www.sonoma.edu/saem/leadership

## Student Organizations

With over 130 chartered student organizations, joining one is an excellent way to get involved, meet people, develop friendships, and gain leadership experience. Additionally, serving as an officer al-
lows you to take your leadership skills to the next level. As a member or officer of a student organization, you'll learn about organizational issues such as membership recruitment, fundraising, running effective meetings, managing conflicts, and program planning. The relationships and experiences you gain through your involvement in a student organization will have a lasting effect on your time at SSU and after graduation.
www.sonoma.edu/campuslife/clubs

## Greek Life

What do all sororities and fraternities have in common? All chapters at Sonoma State (and internationally) share the common values of academic achievement, diversity, community service, and friendship, and provide a plethora of leadership opportunities for members. There are 18 Greek organizations on campus with a combined total membership of approximately $16 \%$ of the campus population. Visit our website to learn more about the fraternities and sororities on campus and how to join.
www.sonoma.edu/campuslife/greek

## The Children's School

Children's School
(707) 664-2230
www.sonoma.edu/tcs
The Children's School is a program of the Associated Students, Inc. We provide high quality early childhood education services to children of SSU student, staff, and faculty families. Our NAEYC accredited developmental program for ages one through five years is steeped in active sensory experiences and grounded in environmental ethics. We operate as the Child Development Laboratory on campus and welcome students from many different disciplines to observe and learn from and about children. Our model school is staffed with Master Teachers who train our large SSU student staff in best practices and theories in Early Education.

## Counseling and Psychological Services

Stevenson Hall 1088
(707) 664-2153
www.sonoma.edu/couselingctr
Brief counseling is provided to enrolled students who are experiencing personal difficulties that interfere with their ability to take full advantage of the University experience. Licensed psychologists and doctoral-level interns provide individual, couples, and group counseling. Our goal is to facilitate the following: personal growth and self-esteem, development of satisfying relationships, effective communication and decision-making skills, and the establishment of personal values. Doctoral level counselors assist clients to express and clarify their concerns and to identify specific changes that might be helpful to them. Interventions are aimed at increasing selfawareness, utilizing existing coping strategies more effectively, and developing additional skills to deal more successfully with problems.
The counseling staff offers groups and workshops on a variety of
themes, such as grief/loss, conflict resolution, adjusting to college, assertiveness training, eating issues, body image, LGBTQ, test anxiety, procrastination, and men's and women's issues. Drop-in/crisis hours are available daily. Referrals are made to community agencies and private practitioners for students requiring specialized services. For information and appointments, call (707) 664-2153.

## Disability Services for Students

Salazar Hall 1049
(707) 664-2677 (voice)
(707) 664-2958 (TDD/Text Telephone)
www.sonoma.edu/dss
Disability Services for Students (DSS) assures people with disabilities equitable opportunities for higher education. DSS works to protect and promote the civil rights of students with disabilities. DSS challenges and supports students to develop self-determination and independence as people with disabilities.

## Accommodation... Not Remediation

Like all campuses in the CSU, Sonoma State University has admission criteria designed to ensure that every student admitted is academically prepared to be successful in their chosen field of study. While students with disabilities are given reasonable services and accommodations related to their needs, they are also held to the same academic standards and expectations as their non-disabled peers.

## Student Empowerment Model: Differences between High School and College

There are several differences between attending a high school and a college. SSU's Disability Services for Students program uses the Student Empowerment Model when providing accommodations and services. Here, unlike in high school, accommodation assistance and services are student-initiated. It is the student's responsibility to seek out and use the appropriate accommodations or services available.

## Getting Started

After admission to Sonoma State University, students are encouraged to register with DSS by contacting the office and providing documentation of their disability.

Students with disabilities who register with DSS are eligible for a variety of services and accommodations. All services and accommodations are determined on an individual basis and will vary from one student to the next depending on State and Federal laws, University policy, disability verification and professional judgment.

## Requirements for Accommodation

Students with disabilities who request services should:

- Contact the Disability Services for Students office to request services;
- Set up an appointment to meet with an advisor; and
- Provide documentation of their disability to the DSS office (located in Salazar Hall 1049).


## Potential Accommodations

- Disability management advising
- Classroom accommodations
- Note takers
- Readers
- Scribes
- Interpreters
- Referral to other campus departments
- Alternate media
- Disability management advising
- Assistive technology with software such as:
- Kurzweil
- Dragon Naturally Speaking
- JAWS
- Zoom Text


## Academic Support Courses

UNIV 102 is an advising and college orientation program for incoming first-time freshmen. It represents a joint effort of the Academic Affairs and Student Affairs divisions aimed at enhancing retention of our freshmen. UNIV 102 consists of a faculty member or a student services professional and a peer advisor. As students make the transition to Sonoma State, one of the most important roles UNIV 102 plays is providing accurate advising to incoming students so they begin their educational career with appropriate coursework and educational and career planning.

UNIV 102 provides the instruction for a three-unit First Year Experience course and the academic advising for assigned freshmen. While the course is not required for graduation, most freshmen will benefit from understanding how to access the various resources on campus, such as the computer network and the Jean and Charles Schulz Information Center, as well as other topics such as:

- The meaning, value, and expectations of a liberal arts college education;
- Problem-solving and decision-making: selection of a college major and a future career choice;
- Navigating the University curriculum: how to graduate in four years;
- Learning how to learn: study skills and success in college; and
- Interpersonal relations and related student lifestyle responsibilities regarding wellness, alcohol and drug use, sexual harassment, and many other important topics.

In addition to offering the opportunity to become oriented to the many services the University has to offer, UNIV 102 is an ideal setting for developing important connections with other students who are new to the University.

During the first year, UNIV 102 contacts include advising, class time (Freshman Seminar), and informal social activities. UNIV 102 ensures that new students have at least one faculty/staff member from Sonoma to guide and advise them through their academic career and help make their University experience a satisfying one.

UNIV 102 members consult with other campus team members to solve problems or help students receive technical assistance when needed. In addition to academic faculty, team members include staff from Admissions and Records, Residence Life, Educational Opportunity Program (EOP), Advising Center, Career Services, Learning Skills Services, and others as appropriate.

## International Services

International Services
Salazar Hall 1060
(707) 664-2582

Fax: (707) 664-3130
e-mail: international@sonoma.edu
www.sonoma.edu/sas/is
International Services provides the SSU campus community with a variety of programs, services, and activities related to international education and exchange, including:

- Support services and social programming for matriculated international students in the University and in Sonoma State American Language Institute;
- Visa, legal status, and travel documentation services for nonimmigrant students, faculty, and research scholars;
- Operation of study abroad programming for SSU, including the CSU International Programs; and
- Operation of the National Student Exchange.

See the Admissions section of this catalog for application and general information for international students.

## Study Abroad Opportunities and the National Student Exchange

Students who want to get the most from their Sonoma educational experience should try going away! Most people in the world follow the well-worn paths of life, but some students want to explore, and "push the envelope," to excel, and to extract from their education every bit of opportunity. Study Abroad and National Student Exchange were created for these students.

## The California State University International Programs

Developing intercultural communication skills and international understanding among its students is a vital mission of The California State University (CSU). Since its inception in 1963, the CSU International Programs has contributed to this effort by providing qualified students an affordable opportunity to continue their studies abroad for a full academic year. More than 15,000 CSU students have taken advantage of this unique study option.

International Programs participants earn resident academic credit at their CSU campuses while they pursue full-time study at
a host university or special study center abroad. The International Programs serves the needs of students in over 100 designated academic majors. Affiliated with more than 70 recognized universities and institutions of higher education in 19 countries, the International Programs offers a wide selection of study locales and learning environments.

## Australia

Griffith University
Macquarie University
Queensland University of Technology
University of Queensland
University of Western Sydney
Victoria University

## Canada

Concordia University (Montréal)
McGill University (Montréal)
Université Laval (Montréal)

## Chile

Pontificia Universidad Católica de Chile (Santiago)
China
Peking University (Beijing)
Shanghai Tiao Tong University (Shanghai)

## Denmark

Danish Institute for Study Abroad (international education affiliate of the University of Copenhagen)

## France

Institut Catholique de Paris
Université de Provence (Aix-em-Provence)
Universités de Paris I, III, IV, VI, VII, VIII, X, XI, XII, XIII
Université Paris-Est Marne-la-Vallée
Université d'Evry Val d'Essonne
Université de Versailles Saint-Quentin-en-Yvelines

## Germany

University of Tübingen and a number of institutions of higher education in the Federal state of Baden-Würtemberg

## Ghana

University of Ghana, Legon
Israel
Tel Aviv University
The Hebrew University of Jerusalem
University of Haifa
Italy
CSU Study Center (Florence)
Universitá degli Studi di Firenze
Accademia di Belle Arti Firenze

## Japan

Waseda University (Tokyo)

## Korea

Yonsei University (Seoul)

## Mexico

Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Querétaro

## New Zealand

Lincoln University (Christchurch)
Massey University (Palmerston North)

## South Africa

Nelson Mandela Metropolitan University, Port Elizabeth

## Spain

Universidad Complutense de Madrid
Universidad de Granada

## Sweden

Uppsala University

## Taiwan

National Taiwan University (Taipei)
National Tsing Hua University (Hsinchu)

## United Kingdom

Bradford University
Bristol University
Hull University
Kingston University
Swansea University
CSU International Programs pays all tuition and administrative costs for participating California resident students to the same extent that such funds would be expended to support similar costs in California. Participants are responsible for all tuition and program fees, personal costs, such as transportation, room and board, and living expenses. Financial aid, with the exception of Federal Work-Study, is available to qualified students.

To qualify for admission to CSU International Programs, in most programs students must have upper-division or graduate standing at a CSU campus by the time of departure. Students at the sophomore level may, however, participate in the intensive language acquisition programs in Canada, China, France, Germany, Korea, Mexico, Sweden and Taiwan. California Community Colleges transfer students are eligible to apply directly from their community colleges. Students must also possess a current cumulative grade point average of 2.75 or 3.0 , depending on the program for which they apply. Some programs also have language study and/or other coursework prerequisites.

Additional information and application materials may be obtained on campus, or by writing to The California State Univer-
sity International Programs, 401 Golden Shore, Sixth Floor, Long Beach, California 90802-4210. Visit us on the World Wide Web at www.calstate.edu/ip.

## Non-CSU Study Abroad

International Services will also provide general assistance to students who wish to participate in a program or attend an institution which is not a partner in the CSU International Programs.

## The National Student Exchange

The National Student Exchange is a program that provides opportunities to study through exchange in the United States, Canada, Guam and Puerto Rico.

Many opportunities will be available to you when accessing courses and programs from NSE's over 200 member campuses. Think of the adventure, the diversity of people, the culture, and the geography among the 49 states, District of Columbia, 3 territories, and 4 Canadian provinces where NSE has member colleges and universities. Consider the impact this program can have on your personal and academic growth, as well as the implications for your future.

Semester and academic year exchanges are available for sophomores, juniors, and seniors who have and maintain a 2.50 grade point average. Academic courses completed as a National Student Exchange participant are considered residence units at Sonoma State.

Further information and application materials may be obtained at International Services or by visiting www.nse.org.

## International Student Services

The international student advisor provides advising to Sonoma's international student population including our F-1 and J-1 status students and scholars. As Primary Designated School Official, our advisor provides consultation and documentation and signs off on many immigration matters, including applications for special work permission, extensions of stay, change of visa status, maintenance of $F$ or $J$ status, passport and visa requirements, replacement of lost documents, travel documentation, transfer of schools, reinstatement for students who have fallen out of F -1 status, and the Practical Training benefit.

International Services also provides help understanding University policies such as the registration process, payment of fees, scholarships, orientation, housing, and required health insurance. Discussion or counseling are available regarding cultural adjustment to the United States, American academic differences, testing, and personal problems. The international student advisor works closely with the International Education Exchange Council (IEEC) student club, which provides a rich array of field trips and social engagements to help students round out their experience in the United States. There are just under 60 international students at SSU and about 70 in our Language Program (see Sonoma State American Language Institute).

## New Student Orientation and Family Programs

Salazar Hall 1010
(707) 664-4464
http://www.sonoma.edu/saem/orientation/
The mission of the Sonoma State University New Student Orientation and Family Programs is to facilitate the successful transition of new students and their families into the campus community. Through the promotion of the University's academic expectations and support, as well as developmental opportunities, our programs assist students and their families in feeling engaged and prepared in identifying academically, socially, and culturally as a Seawolf.

Summer Orientation provides the opportunity for first-time freshmen to meet other new students, learn about campus life and services available to them, and interact with student leaders. Also, during Summer Orientation, students receive advising and register for their fall semester courses. Parents and guardians are invited to attend and become informed during the Family Orientation Program that is held simultaneously with the student sessions. Summer Orientation programs are offered typically in June and early July.

New Student Orientations are held each semester for our incoming transfer students. Transfer students have the opportunity to learn how their prior course work will lead to a degree from SSU, meet with a faculty advisor in their department, learn about various campus services and programs, review the registration process, and register for their courses.

## Residential Life

Chateau Building
(707) 664-4033
www.sonoma.edu/sas/reslife/
The campus Residential Community provides comfortable, convenient, personalized living accommodations for approximately 3,100 single students. The residential life program is designed to be an important part of the student's overall educational experience by providing academic, recreational, social, and educational opportunities. The professional Residential Life staff are trained as educational mentors and academic advisors. Special living and learning options enhance the students' University experience and involve many faculty in the residential community. Several programs exist within the freshman area and include: Freshman Interest Groups (FIGS) and the Freshman Year Experience (FYE), MOSAIC (Making Our Space an Inclusive Community), and COOP. UENGAGE is a living and learning program designed for the continuing residents of Tuscany and Hillside Villages.

The professional and student staff within the Residential Community provide personal support for the individual student in transitioning to the University environment. There is a diverse program of activities to create a sense of belonging in the Residential Community and the University by providing and supporting social, recreational, athletic, and cultural programming. These may include a trip to see a theatre production in San Francisco, attend Giants and A's games, trips to MOMA, Alcatraz, whale watch at the ocean, play on an intramural team, or barbecue with neighbors.

The Residential Student Association (RSA), the student government for residents, is an outstanding opportunity to develop leadership skills. RSA is responsible for representing resident concerns to the University administration as well as planning major program events within the residential community. Village Councils also provide opportunities for leadership and involvement in the residential community for even our newest students. Our Residential Life student groups are involved in regional and national organizations, enabling students to expand their skills and abilities.

## Multicultural Center

Student Union, First Floor
(707) 664-2710

The Multicultural Center fosters a campus environment of mutual respect and appreciation. The Multicultural Center addresses the particular experiences of traditionally underrepresented students including but not limited to: race, color, religion, national origin, gender, sexual orientation, gender expression, disability.

The learning outcomes for the Multicultural Center are that students will advance their understanding of social justice issues and their multiple complexities, students will receive and develop skills and knowledge necessary for retention and graduation, and identity based student organizations will learn to access educational opportunities and resources to assist them in reaching their mission and serving their members.

The Multicultural Center is a student-centered office that provides programs and services. We are the umbrella home for student organizations that support the success for traditionally underrepresented students. In addition to sponsoring events and activities, the Multicultural Center is a place for students to seek support and referral. There is a study corner, gallery and a comfortable place to come and relax. The Center may be reserved by our affiliated groups for meetings and activities.

## Student Conduct

Salazar Hall 1070
(707) 664-3377
http://www.sonoma.edu/saem/judicial
The President of the University has authority in disciplinary actions. In compliance with CSU Executive Order 1043 the President may assign a campus official or officials to be the Student Conduct Administrator, whose responsibility is to determine whether to initiate disciplinary action under the Student Conduct Code. The Director of Judicial Affairs and Special Projects is the designated Student Conduct Administrator for this University.

The University is committed to maintaining a safe and healthy living and learning environment for its students, faculty, staff, and the greater campus community. Each member of the campus community has an obligation to engage in behaviors that contribute toward these common goals. Every member of this living and learning community must assume responsibility for becoming educated about the policies, procedures, and standards followed at this institution.

Students will be held accountable for their actions when their behavior goes beyond what the Sonoma State University community considers to be reasonable and responsible. Students referred to the Student Conduct Administrator will participate in a disciplinary process which emphasizes education, tolerance, integrity, and respect.

## Student Health Center

Student Health Center Building
(707) 664-2921
http://www.sonoma.edu/shc/
Accredited by the Accreditation Association for Ambulatory Healthcare, Inc.

Sonoma State University maintains a nationally accredited, oncampus Student Health Center (SHC) that provides outpatient primary medical care as well as health education, public health and disease prevention services for regularly enrolled SSU students. The Student Health Center is located along West Redwood Circle, between the Schultz Library/Information Center and Rachel Carson Hall, and East of the Zinfandel dining area of the residence halls. Hours are 8 a.m. to 4:30 p.m. M-F, excluding campus closures and holidays. A limited extended-hours clinic is currently held until 5:30 p.m. on Mondays when academic year classes are in session.

Staffing: The Student Health Center's professional staff includes board certified physicians as well as nurses, nurse practitioners, pharmacists, lab technologist, and X-ray technologist.

Services: The SHC provides quality outpatient medical care for acute and subacute illnesses, injuries and basic mental health concerns. Pharmacy, lab, x-ray, travel and athletic medicine and preventative medical services such as immunizations, Pap smears, contraception, and health education are also provided. While interim and transitional care is offered for medical stabilization and support purposes, continuing comprehensive care is not provided for chronic or complex conditions that may require hospitalization, after hours monitoring, the attention of a medical specialist, or similar interventions that are beyond the scope, staffing or hours of operation of the Student Health Center.

SHC medical visits, health education, and public health services are available at no additional charge to regularly enrolled SSU students who have paid the necessary per semester registration fees. Discounted user fees are in place to cover the acquisition cost of medications, vaccines, specialized diagnostic tests, and certain other supplemental medical supplies. Nominal fees are also charged for pre-employment and pre-participation physicals and for summer services.

Regularly enrolled SSU students who have paid SSU campus registration fees may receive basic medical visit services at other California State University Student Health Centers without additional charge during their regular academic enrollment. Health insurance is not required to use the Student Health Center. However, personal health insurance is recommended, because students are financially responsible for medical services they receive outside the SHC and
from off campus entities. A private insurance carrier that contracts directly with registered CSU students offers a moderately priced supplemental health insurance policy designed to complement SHC services by covering necessary off campus, after hours, and out of area health care. Contact the SSU Associated Students Office (707 664-2815) or check www.csuhealthlink.com for information.

Confidentiality: SHC medical records and related individually identifiable health information are confidential and are held in a manner consistent with state and federal law as well as national accreditation standards. Parents, family members, University personnel and other individuals who are not the healthcare providers and SHC support staff directly involved in the student's medical care do not have access to SHC medical information without the patient's consent.

Student Health Advisory Committee (SHAC): Opportunities for student involvement and advocacy relevant to campus health issues are available through SHAC and health promotion projects. Those interested in serving on SHAC are encouraged to contact the Student Health Center. Those interested in health promotion projects should contact the SHC health educator.

## Testing Services

Salazar Hall 1070
(707) 664-2947
http://www.sonoma.edu/sas/testing/
Testing Services provides a variety of services to the campus community designed to assist students in their admission, placement, and graduation requirements. Tests are offered on a regularly scheduled basis. An annual test calendar is included online in the Schedule of Classes and in the Testing Office. Students must preregister for all tests. For information on all tests offered at SSU, view our website at http://www.sonoma.edu/sas/testing/.

Disabled students who require special arrangements should contact Disability Resources at (707) 664-2677 or (TDD) (707) 6642958 at least one month prior to the test date.

The following are regularly offered through Testing Services: Undergraduate candidates for admission

- ACT-Residual (SSU only)


## Placement tests

- CSU English Placement Test (EPT)
- CSU Entry-Level Math Test (ELM)


## Graduate school candidates

- Graduate Record Exam (GRE), Subject Tests only
- Law School Admissions Test (LSAT)

Credential candidates should contact either the Credentials Office, at (707) 664-2832, or the Recruitment and Information Specialist, at (707) 664-2593, for test requirements.

Students interested in graduate work at Sonoma State University must check with their department about specific testing requirements.

## University Support and Preparation Services

University Support Services (707) 664-2853
Preparation Services (707) 664-2428
http://www.sonoma.edu/saem/sps

## Departmental Mission

The mission of University Support and Preparation Services at Sonoma State University is to empower students to access and succeed in higher education by providing a spectrum of services that promote academic, social, and personal success. The various programs assist University and pre-college students in achieving and maintaining academic excellence, facilitate college and career planning, and conduct academic advising. Some programs offer supplemental instruction, grant aid, tutoring, summer camps, activities, field trips, and college tours. Eligibility varies by program; please call individual offices for information. All programs are free of charge for eligible participants.

## Learning Skills Services

(707) 664-2853
www.sonoma.edu/lss
Learning Skills Services (LSS) provides tutoring, counseling, mentoring, supplemental instruction, and remedial courses for 350 eligible low-income, first-generation and disabled University students. LSS also includes a Grant Aid component providing supplemental grant funding for eligible students as well as graduate school preparation services and a laptop Ioan program. LSS is a TRIO Student Support Services federally funded project. LSS is located in Salazar 1040.

## Student Support Services for ESL

(707) 664-2853
www.sonoma.edu/lss
Student Support Services for ESL (English as a Second Language) provides tutoring, counseling, mentoring, supplemental instruction, and remedial courses for 140 eligible low-income, first-generation and disabled University students. This program focuses on those with an ESL or Multi-Language Learner (MLL) background, preparing students to succeed in college level work. SSS is a federally funded TRIO project and is located in Salazar 1040.

## National Graduate School Achievement Program (NoGAP) (707) 664-2853

The NoGAP Program assists undergraduate students in preparing for graduate school with the intent of pursuing doctoral studies. Eligibility is based on a variety of factors and activities include research projects, mentoring, internships, tutoring, advising, symposium attendance and GRE preparation workshops. The NoGAP program is a federally funded TRIO McNair Scholars project and is located in Salazar 1040.

## SSU Tutorial Center

(707) 664-2429
www.sonoma.edu/sas/tutorial
The Tutorial Center provides peer-tutoring services to all enrolled SSU students free of charge. Tutoring is by appointment and is available in selected subjects; please call for availability and appointments. In some cases, SSU faculty enhance this service by organizing small group workshops or study groups led by a Tutor attached to certain courses. The SSU Tutorial Center receives supplemental funding from the Associated Students and is located in Salazar 1040.

## CSU Early Assessment Program

(707) 664-2938

All 11th-grade students in the state of California can now take the California Standards Test in mathematics and English and, upon completing additional questions and meeting a satisfactory score, will be exempt from taking college placement exams (ELM/EPT) at each CSU campus throughout California. Students are notified of their readiness for college and directed to resources to assist in college preparation. Teacher in-service training is also available. Superintendents, Principals, Counselors, Testing Coordinators, and parents wishing additional information are encouraged to contact the Early Assessment Program (EAP) or visit the website at www. calstate.edu/eap.

## Academic Talent Search Program

(707) 664-3122

Academic Talent Search (ATS) is designed for 6th-12th grade Sonoma County students with academic potential. ATS outreach staff and instructors provide 700 eligible program participants with field trips, college campus tours, workshops, and information about college placement and financial aid. Program participants are lowincome and/or potential first-generation college students. ATS is a federally funded program and is located in Building 49.

## Upward Bound Programs

(707) 664-4073 Upward Bound Sonoma
(707) 664-3017 Upward Bound North
(707) 994-6471 Upward Bound Lake
(707) 664-4073 Upward Bound Math \& Science

The Upward Bound programs are designed for low-income and/ or first-generation potential college students attending targeted high schools in Sonoma, Napa, Mendocino, and Lake Counties. All Upward Bound students attend an academic year program and a Summer Academy program that emphasizes both academic and motivational skills development. Students also participate in career development, college placement, and tutorial services. The Upward Bound programs are federally funded and are located in Building 49.

## Writing Center

Schulz Information Center 1103
(707) 664-4401
www.sonoma.edu/programs/writingcenter
The Writing Center offers assistance in writing-related issues to all members of the SSU community, with the primary goal of helping students improve as academic writers. Students can request tutoring help for any writing task at any point in the writing process, from generating ideas to editing for correctness. In addition to one-onone and group tutorials the Center offers online services available through our website.
The center also offers in-class workshops for students on writingrelated issues and consultations for instructors and academic units on improving writing across the curriculum.
Call or come to the Center to make tutoring appointments or to talk with the director about other services.

## THE ARTS AT SONOMA STATE UNIVERSITY

## School of Performing Arts

Ives Hall 206 and Green Music Center Education Hall (707) 664-2235

## DIRECTOR

Jeff Langley
PRODUCTION MANAGER
Kamen Nikolov
BOX OFFICE
(707) 664-2353

In addition to its broad spectrum of course offerings in music, dance and theatre, the School of Performing Arts coordinates the performance activities of the music and theatre arts departments, providing technical support in scenery, costumes, makeup, lighting and sound, as well as marketing, facility management and ticketing services. An estimated 16,000 people attend the School's annual presentation of 140+ student and guest artist workshops and performances.

The School of Performing Arts is home to a variety of performing ensembles comprised of both students and community members, including Drama Ensemble, Dance Ensemble, University Chorus, Sonoma County Bach Choir, Chamber Singers, Music Theatre Production, Music Theatre Scenes Workshop, Vocal Jazz Combo, Indian Singing Ensemble, Chamber Music Ensembles, Symphonic Wind Ensemble, Brass Ensemble, Guitar Ensemble, American Gamelan, Percussion Ensemble, Concert Jazz Ensembles (2), Latin Jazz Ensemble, Jazz Orchestra, and Jazz Piano Group. In addition, a number of student-initiated projects in music, dance and theatre are presented each semester, including senior recitals and projects.
In addition to the regular performances of its resident ensembles, the School's departments and programs each year host and present a variety of other special events and activities. The Music Department's Collage Concert, presented each October as part of parent visitation weekend, launches the Music Department's performance season with debut performances by its major ensembles-it is soon followed by the annual Talent Award Ceremony for scholarship and endowment donors, which in addition to music, features highlights of fall dance and theatre productions. Other fall events include the High School Invitational Choral Festival and the annual vocal teacher's workshop presented by the local chapter of the National Association of Teachers of Singing (NATS). Spring brings the long established Etude Competition to campus. Throughout the year, the jazz and symphonic wind programs host a variety of regional clinics and festivals, all of which bring high school and college ensembles to SSU. Trio Navarro, the Music Department's resident professional ensemble, presents a 4-concert chamber series. Finally, the Theatre Arts and Music departments and their many programs present each year a varied season of guest artist residencies, workshops and
concerts that introduce students to intensive, hands-on creative work with top-ranking artist professionals. The School's guest artist series-and the departments' many talent scholarships-is made possible by the Evert B. Person endowment established in 1991.

The school manages a variety of distinct performance venues:

- Evert B. Person Theatre, opened in 1990, a beautiful state-of-the-art, fully equipped and accessible 475-seat proscenium theatre with excellent sight lines, a complete fly system, movable thrust with orchestra lift, large stage, computerized lighting board system, well-equipped scene and costume shops, and actor-friendly dressing rooms and makeup facilities. It is used for most large-scale theatre, dance and music theatre productions, as well as for concerts, lectures and special events;
- Warren Auditorium, a 200-seat proscenium auditorium, the main venue for jazz concerts and other music and theatre events. Equipped as a "smart classroom" for lecture-style classes and home of the Sonoma Film Institute;
- A 125-seat flexible drama theatre and rehearsal space, also used for music rehearsals and events, including solo recitals, chamber, choral and student concerts;
- A 50-seat black box studio theatre suited to small-scale, intimate productions;
- A 100-seat dance studio/theatre, the primary venue for the presentation of student dance work; and
- Alumni Amphitheatre, a small outdoor space surrounded by trees, used for a variety of performances.

In addition to its own concerts and productions, the School provides venues and support for a variety of campus activities, including convocations, lecture and film series, conferences, and events sponsored by Associated Students Productions. In addition, many off-campus groups rent the School's performance facilities for meetings, conferences, dance, theatre, and music performances.

The Center's box office outlets are located in the Evert B. Person Theatre, on the main floor of Ives Hall (outside Warren Auditorium) and ( 30 minutes prior to performance only) in the lobby of Schroeder's Recital Hall at the new Green Music Center. Reserved-seat tickets are available for many performances. Discount rates on all tickets for students, senior citizens and groups are in effect for all performances. Free admission tickets are available to all SSU students.

## Green Music Center

The new Donald and Maureen Green Music Center's mission is to aim high, reach wide and educate all. The Center's concert hall is modeled after Tanglewood's renowned Seiji Ozawa Hall and brings
to Northern California a world-class concert venue, establishing SSU as a major western destination for the study and performance of music. Designed by the best architects and acousticians in the field, the Green Music Center will include a 1,400-seat concert hall; 250-seat recital hall; large lobby; extensive amenities for patrons, performers and students; and the ability to accommodate 3,00010,000 additional patrons on the lawns surrounding the facility. The Green Music Center will provide the ideal performance setting for vocal, choral, chamber, jazz, popular, instrumental, world and symphonic music of every style and tradition-as well as for the spoken word and the exchange of ideas-and will be known for its superb acoustics and spectacular setting among the hills and vineyards of Sonoma County. The Green Music Center will be the performance home of the Santa Rosa Symphony. The SSU Music Department began its phased move to the Center's Education Hall in fall 2008. It now teaches all of its classes there and most of its performances.

## University Art Gallery

Art 101
(707) 664-2295

## DIRECTOR

Michael Schwager
Opened in 1978 as part of SSU's new art department complex, the University Art Gallery is a large and well-equipped facility with almost 2,500 square feet of exhibition space in two adjoining galleries. The Art Gallery serves the campus and surrounding communities through ongoing presentation of exhibitions, publications, and lectures, featuring work by local, national, and international contemporary artists.

Throughout its existence, the Art Gallery has organized and displayed museum-quality exhibitions, ranging in focus from experimental installations and multimedia works to more traditional styles and techniques. A brief list of artists featured at the Art Galley includes Robert Arneson, Jedediah Caesar, Enrique Chagoya, Francisco Clemente, Chuck Close, Binh Danh, Eric Fischl, Mineko Grimmer, Mildred Howard, Robert Hudson, Judith Linhares, Hung Liu, Kara Maria, Catherine Opie, Elizabeth Peyton, Favianna Rodriguez, Raymond Saunders, Lincoln Schatz, Katherine Sherwood, Masami Teraoka, William Wegman, and Kehinde Wiley, among many others.

During each academic year, the Art Gallery presents five exhibitions, including work by graduating Bachelor of Fine Arts students and the annual Juried Student Show, which is open to all SSU students and is selected by two art professionals from the off-campus art world. Work by the SSU Art Department faculty is also shown in the gallery every two to three years. In addition, the Art Gallery hosts a variety of programs and events, chief among them the Art from the Heart Auction, which each year features affordable works of art by more than 100 local and nationally recognized artists, the proceeds from which directly benefit the gallery's programs.

In addition to its public programs, the Art Gallery serves as a teaching facility, providing both art history and art studio students
hands-on experience in the fields of museum and gallery work and arts administration.
The Art Gallery is open 11 a.m. to 4 p.m., Tuesdays through Fridays, and noon to 4 p.m. on Saturdays and Sundays. Admission is free.

## University Library Arts and Lectures Program

Jean and Charles Schulz Information Center
(707) 664-4240
library.sonoma.edu/about/gallery.html
DIRECTOR
Karen Brodsky
The Arts and Lectures Program in the University Library strives to enrich the intellectual, educational, and cultural life of the Sonoma State community. The program provides a venue for people to come together to share ideas through art, lectures, and discussions. Using a variety of locations within the Information Center, the program supports the liberal arts mission of the University. Activities are designed to explore a diversity of ideas, values, and intellectual and artistic expressions. Emphasis is placed on exposure to library collections; research interests of SSU faculty, staff, and students; and regional issues, including the support of local cultural initiatives.

The University Library Art Gallery presents exhibitions by students, professional artists, selections from the Library's unique collections, and material from traveling exhibitions. Some past exhibits include the work of local photographer John LeBaron, an annual showing of work by the Edward C. Boyle Scholarship recipient, and participation in the Sonoma County-wide celebration of work by the world-renowned Christo.
The University Library Art Gallery is located on the second floor of the Information Center and includes approximately 1,250 square feet of exhibition space. Exhibits are scheduled throughout the year. The gallery is open Mondays through Fridays, 8 a.m. to 5 p.m., and Saturday and Sunday, noon to 5 p.m., excluding holidays.

Lectures and readings organized each semester by the University Library Arts and Lectures Committee, often in collaboration with campus departments and community groups, include presentations of faculty research, author readings, and other events of interest. The public reading room (Schulz 3001) is reserved to provide a gathering place for people to come together to listen, learn, and discuss.

## REGULATIONS AND POLICIES

## Academic Regulations

Admissions \& Records
Salazar Hall 2030
(707) 664-2778

## Changes in Rules and Policies

Although every effort has been made to assure the accuracy of the information in this catalog, students and others who use this catalog should note that laws, rules, and policies change from time to time and that these changes might alter the information contained in this publication. Changes may come in the form of statutes enacted by the Legislature or rules and policies adopted by the Board of Trustees of The California State University, by the Chancellor or designee of The California State University, or by the President or designee of the campus. It is not possible in a publication of this size to include all of the rules, policies, and other information that pertain to students, the institution, and the California State University. More current or complete information may be obtained from the appropriate department, college, or administrative office.
This catalog does not constitute a contract or the terms and conditions of a contract between the student and the institution or The California State University. The relationship of the student to the institution is one governed by statute, rules, and policies adopted by the Legislature, the Trustees, the Chancellor, the President and their duly authorized designees.

## Registration and Enrollment

You must be either a continuing student or an admitted applicant who has paid their Enrollment Reservation Deposit (ERD) in order to be eligible for registration. You are a continuing student if you registered for one or both of the previous two semesters (summer and intersession excluded). Continuing student status will be lost if you earned your bachelor's degree, were academically disqualified, or were separated from the University for 2 semesters or more.

The University offers several opportunities for registration. At least two registration periods are held prior to the first day of instruction. Late registration, which requires payment of an additional fee, is available during the add/drop period.

New students must confirm their intention to enroll at Sonoma by paying an Enrollment Reservation Deposit (ERD). Information will be sent at the time of admission about the deposit. All eligible continuing students and all admitted applicants who have paid the deposit will be sent registration notifications at least one week prior to the registration period with the exception of first-time freshmen who register during summer orientation. This registration notification will provide a link to the Registration website, which will include information about advising, registration appointment times, important dates, and procedures for registering. Applicants admitted too late
to participate in the first registration period will receive information regarding subsequent registration periods.

The best source for registration information is the Admissions and Records website. The Schedule of Classes is available on our online Student Information System (PeopleSoft) and is updated in real time. A PDF version of the Schedule of Classes is published electronically each semester.

## Registration

All students at Sonoma State University register online. Students will find Web registration quick and easy. Carefully read all of the registration information on the Admissions and Records website to make the registration process even simpler.

## User ID and Password

Access to Web registration requires the entry of your Seawolf User ID and password. Information on how to obtain your user ID and password can be found at the Admissions and Records website.

## Registration Fee Payment Deadline

The Seawolf Service Center website at www.sonoma.edu/customerservices/studentfee publishes the fee schedule and payment due dates. Students who fail to pay their fees by the registration fee deadline will be dropped from their classes. Credit will not be granted in any course unless all registration procedures are completed and fees are paid.

## Holds

Be sure to clear any holds before registration. Depending on the nature of the hold, access to registration may be blocked, and the student may miss his or her registration appointment. You can view your holds online. For additional information about a financial hold, contact the Seawolf Services Center. For non-financial holds, contact the office that placed the hold.

## Categories of Enrollment

With the exception of first-time freshmen who register at Summer Orientation, appointments are assigned by class level in descending order of units earned. The order is:

## Status

Units Completed

| First-time Freshman | 0 |
| :--- | ---: |
| Classified Graduate and Credential | $\mathrm{n} / \mathrm{a}$ |
| Senior | $90+$ |
| Junior | $60-89$ |
| Sophomore | $30-59$ |
| Freshman | $0-29$ |
| Unclassified Graduate Students | $\mathrm{N} / \mathrm{A}$ |

SSU reserves the right to give priority registration appointments to certain populations of students approved by the Academic Senate.

## Academic Load

A minimum of two hours preparation for each hour of regular class work should be expected; in upper-division and graduate-level courses, additional time may be required.

Undergraduate students who need to be registered full-time should note that 12 units is the minimum load to qualify for full-time status.

The maximum academic load recommended for graduate students is 12 units, but a student may register for up to 20 units.

Graduate students officially accepted into master's degree programs who are taking classes that are part of their approved plan of study and need to be registered full-time should note that 8 units is the minimum load to qualify for full-time status. Other postbaccalaurate students (e.g. Credential, unclassified, etc.) follow the same rules as Undergraduate students.

## Add/Drop

Students are permitted to change their initial enrollment by following the University's add/drop procedures. A student may add, drop, or change the basis of grading of a class utilizing the University's online registration system and within the deadlines of the Registration Calendar. Students should consult the Admissions and Records website for the procedures, approvals, timelines, and fees associated with add/ drop process.

Students may add courses to their schedules up to the maximum enrollment limit during the registration periods and the add/drop period. Students must register themselves. You may add a class only if space is available on My SSU. Sitting in on a class is not equivalent to enrollment in a class. You are registered only when you successfully complete the Web transaction. Consult the Office of Admissions and Records website for appropriate dates and approvals.

Students may drop a course or courses during the two registration periods and the add/drop period. Dropping during these times will remove the course from your schedule. Once you have decided to drop a class, you should do so immediately so that another student can fill your vacated seat. After the add/drop period, you may still drop classes until Census date (which is the $20^{\text {th }}$ day of instruction); however, you will receive a grade of "W" for the course(es).

Failure to attend a class does not constitute a formal drop or withdrawal from a class. Students are responsible for dropping classes they are not attending during the deadlines posted on the academic calendar.

## Withdrawal from Courses

In accordance with CSU Executive Order No. 1037, it is the policy of Sonoma State University that:

## I. Dropping a Course:

Students may drop a course (or courses) online and without penalty until the drop deadline (check Academic Calendar at http://www.sonoma.edu/ar/calendars/index.shtml).

## II. Withdrawal from a Course or Courses after the Drop Deadline:

A. Unit Limit for Withdrawal from Courses: Undergraduate students may withdraw from no more than 18 total semester units of coursework attempted at Sonoma State University. Withdrawals for "serious and compelling" reasons, which are documented and approved according to the procedures below, will not count toward the maximum of 18 semester units.
B. Definition of Serious and Compelling: For the purposes of withdrawal, the University defines "serious and compelling reasons" as follows:

1. The standard of "serious and compelling" applies to situations, such as illness or accident, clearly beyond the student's control. All situations require documentation.
2. The following situations are typical of those for which "serious and compelling" is appropriate justification for withdrawal:
a. An extended absence due to verifiable accident, illness, or personal problem serious enough to cause withdrawal from the university;
b. An extended absence due to a death in the immediate family;
c. A necessary change in employment status that interferes with the student's ability to attend class;

## d. Errors made by SSU;

e. Other unusual or very special cases will be considered on their merit by the University Standards Committee.
3. The following situations DO NOT fall under the intent of "serious and compelling":
a. Grade anticipated in class is not sufficiently high, or student is doing failing work (including situations where the student has been penalized with a failing grade for academic dishonesty);
b. Failure to attend class, complete assignments, or take a test;
c. Dissatisfaction with the course material, instructional method, or instructor;
d. Class is harder than expected;
e. Pressure of other classes, employment, and/or participation in extracurricular activities;
f. A change of major;
g. Lack of awareness of the withdrawal process or procedures.
4. This standard shall be available to students, faculty, and administrators online and on the Petition to Withdraw from a Course form.
C. From the drop deadline through the "last day to Drop with W" (check Academic Calendar),

1. Students may withdraw from a course (or courses) online for any reason.
2. Students who withdraw during this period shall receive a non-punitive grade of "W".
3. Withdrawing from a course (or courses) for reasons that are not "serious and compelling" will count toward the 18unit maximum.
4. Students withdrawing from a course or courses for "serious and compelling" reasons should file a Petition to Withdraw, accompanied by documentation, rather than withdrawing online.
5. Students withdrawing from all courses should see Section III below (Total Withdrawal).
D. After the "last day to Drop with W" and prior to the last 20\% of instruction (check Academic Calendar), students may withdraw with a "W" from a course (or courses) ONLY for "serious and compelling" reasons, which must be documented. Students must pay a fee and file a petition (available at Admissions \& Records) for each course, stating their reasons for withdrawal and providing documentation, which must accompany the petition. Students must obtain the signatures of the course instructor and the chair of the department in which the course is taught for the petition to be approved. Such withdrawals will not count against the maximum number of units in Section II, A above.
E. During the last 20\% of instruction (see Academic Calendar), students may withdraw with a "W" from a course (or courses) ONLY for documented "serious and compelling reasons" clearly beyond the student's control. Procedures are the same as for Section D above. However, for this period, the registrar has the final authority to approve or disapprove the petition. Such withdrawals will not count against the maximum number of units in Section II, A above. Note: While in many cases withdrawing from a course may be the best option, students may wish to consult with the course instructor about whether the amount of work remaining to be completed and the nature of the "serious and compelling reasons" would make an incomplete practical.

## III. Total Withdrawal

A. During the period between the Drop Deadline and the "last day to withdraw with a W online," a student wishing to completely withdraw from the semester (drop all courses) must complete a Withdrawal Form for each course. If the student's reasons for dropping are "serious and compelling," the reasons must be documented and approved. If "serious and compelling" reasons for withdrawing are documented and approved, the units will not count toward the maximum number of units in Section II, A above.
B. During the period from the census date to the end of instruction, students wishing to completely withdraw from the semester
may do so ONLY for "serious and compelling reasons," which must be documented. As in Section II, D and E above, students must pay a fee and file a petition for each course, stating their reasons for withdrawal and providing documentation. Students must obtain the signatures of each course instructor and the chair of the department in which each course is taught for the petition to be approved. If the petition is filed during the last $20 \%$ of instruction, the Registrar has the final authority to approve or disapprove the petition. Such withdrawals will not count against the maximum number of units in Section II, A above.

## IV. Retroactive Withdrawal

After a given semester has ended, students may petition to retroactively withdraw from an entire semester if there are "serious and compelling" reasons for such a withdrawal. The student must file a petition, which must be accompanied by documentation of the "serious and compelling" reasons. The petition must also be supported by the student's department advisor or by an academic advisor if the student is undeclared. The Registrar and the University Standards Committee have the final authority to approve or deny such petitions. Students may withdraw from a single course retroactively if and only if there are "serious and compelling" reasons affecting a single course (such as being unable to finish a PE course due to a broken leg). Retroactive withdrawals for "serious and compelling" reasons will not count against the maximum number of units in Section II, A above.

## V. Documentation

All petitions for withdrawal after census date must be accompanied by documentation of the "serious and compelling" reasons for withdrawal. Documentation may include: verification of accident or illness (such as a letter from the treating physician or copies of medical bills); a letter from a licensed counselor; death certificate; employer verification of change of work status; PeopleSoft records; and other like documentation as appropriate.

## Cancellation of Registration or Withdrawal from the Institution

Students who find it necessary to cancel their registration or to withdraw from all classes after enrolling for any academic term are required to follow the University's official withdrawal procedures. Failure to follow formal University procedures may result in an obligation to pay fees, as well as the assignment of failing grades in all courses and the need to apply for readmission before being permitted to enroll in another academic term.

Students who receive financial aid funds must consult with Director of Financial Aid, Salazar Hall 1000, (707) 664-2389, prior to withdrawing from the University regarding any required return or repayment of grant or loan assistance received for that academic term or payment period. If a recipient of student financial aid funds withdraws from the institution during an academic term or a payment period, the amount of grant or loan assistance received may be subject to return and/or repayment provisions.

Information concerning the refund of fees due to complete
withdrawal from the University may be obtained from Customer Services.

Students who are living in Student Housing must consult with the Director of Housing to make arrangements to vacate.

## Leave of Absence

The Leave of Absence allows for leaves of one or two semesters. Continuing students should file a leave form with the Office of Admissions and Records indicating the duration of the leave (1 or 2 semesters only) within the first two weeks of the first semester of the requested leave. Students must file a leave form to be eligible for enrollment in the subsequent semesters. New students may not request a Leave for the first semester of enrollment at the University.

A Leave request for health reasons needs to be completed with the appropriate signatures. Documentation from a licensed State of California health professional will normally be required.

A leave for educational reasons permits a student to be absent from regular attendance for one or more terms while maintaining continuing enrollment status. Applicants must have an intention to return to formal study within a specified period and plan for how the time is to be spent in relation to an educational objective. An official transcript is required at the time of the student's return.

For students who are on a leave of two semesters, you must participate in early registration in order to maintain enrollment eligibility. For students returning in a Fall semester, you must register in April/May. For students returning in a Spring semester, you must register in November. Students failing to register in early registration will have their continuous enrollment eligibility cancelled and will need to reapply for admission.

## Continuing Student Status

Once you enroll, pay fees, and attend classes at Sonoma State University, you will be in "continuing student status" for the current and subsequent semester. Reapplication to SSU is required if you take a leave of two semesters and are not on an approved Educational Leave of Absence; if you graduate with a baccalaureate from this or any other institution; or if you are a newly admitted student who enrolls, pays registration fees, and then withdraws before Census day, which is the 20th day of the semester.

The term "student" means any person taking courses at a campus, both full-time and part-time, including summer session, special session, and Extended Education.

Continuing: Student is enrolled in regular programs in one or both of the previous two semesters (summer and intersession excluded) or is resuming studies after an approved Educational Leave of Absence of no more than two consecutive semesters.

New: Student who is registering in a regular term for the first time.

Former: Student who has not registered in two previous consecutive semesters (summer and intersession excluded).

Readmitted: Student who previously attended SSU, broke continuous enrollment status, reapplied, and is readmitted to SSU in a regular program.

## CSU Concurrent Enrollment

Matriculated students in good standing may enroll at both their home CSU campus (SSU) and a host CSU campus during the same term. Credit earned at the host campus is reported at the student's request to SSU to be included on the student's transcript at SSU. Details and applications are available from the Office of Admissions and Records, Salazar Hall 2030. Concurrent enrollment is valid for one term only.

## CSU Visitor Enrollment

Matriculated students in good standing enrolled at SSU may enroll at another CSU campus for one term. Details and applications are available from the Office of Admissions and Records, Salazar Hall 2030.

## Concurrent Enrollment with SSU Extended Education

Matriculated students are not permitted to enroll concurrently in regular SSU courses and SSU Extension or Open University courses, nor may students who have previously attended SSU and whose current status is disqualification for either academic or administrative reasons. Neither are students who have applied and been admitted to the University, but who do not pay fees or enroll in regular University courses, eligible to enroll through Extended Education or the Open University program. There will be no exceptions to this regulation, and no refund of fees.

Extension students admitted in resident classes (through Open University) shall receive the same credit as they would receive in a matriculated class. Concurrent enrollment of extension students in regular classes does not constitute admission to the University; neither does it entitle them to student services available to regular students with the exception of library privileges. Additional information is available at the Office of Extended Education.

## Cross Enrollment

The Cross Enrollment Program is designed to enhance the educational experience of California students by providing them with increased access to courses offered by campuses of other public higher education institutions. Students may speed progress toward meeting degree requirements by investigating course availability at campuses of other systems when they are unable to gain access to required courses at their home campus or are unable to find a course offered at a convenient time. Cross enrollment also expands educational horizons by providing students with opportunities to explore disciplines not offered by the home campus.

CSU full-time undergraduate students have an opportunity to enroll without formal admission and without payment of an additional State University Fee in one course each academic term at a campus of the University of California or at participating campuses of the California Community Colleges. The Cross Enrollment Program is open to California residents enrolled for a minimum of six units, who
have completed at least one term at their home campus, and who have a cumulative grade point average of at least 2.00. Eligibility for enrollment in a course offered by another segment is based on available space and appropriate academic preparation for the course as determined by the host campus. Although the host campus will not require the regular course fee, a discounted administration fee may be assessed for each term, and students are expected to pay any course-related fees (lab, materials, computer use, etc.).

Sonoma also offers cross-registration for undergraduate students with the University of California. For more information, contact the Office of Admissions and Records, Salazar Hall 2030.

## Veterans Services

Students seeking education allowances under provisions of any Veterans legislation must be eligible with the Veterans Administration to receive benefits. All students wishing to draw benefits who are enrolled for any semester must have their current program on file with the VA Certifying Official who can be reached at (707) 6642778. This rule applies each time you register with the University.

## ROTC Programs (Reserve Officer Training Corps)

## http://military.berkeley.edu

ROTC is a training program that prepares college students to become officers in the U.S. Army, Navy or Air Force. Sonoma State University students wishing to pursue ROTC training may do so by participating in ROTC programs offered at the University of California at Berkeley. For more information on enrollment requirements, procedures, and scholarship information, visit the website listed above.

## Provisional Unclassified Graduate Status for Senior Students

Students who plan to complete upper-division or graduate-level courses in their final semester may petition for provisional unclassified graduate credit for such courses. Courses required for the baccalaureate will not be granted this provisional status. The petition must be filed at the same time as the application for award of the degree. Teaching credential candidates should consult the Education Department regarding the advisability of such a petition.

Provisional unclassified postbaccalaureate credit can only be granted for upper-division and graduate-level courses in the semester prior to graduation and will be recorded in the student's academic record as earned prior to the award of the baccalaureate. Such credit is applicable to graduate objectives at the discretion of the relevant academic department. Should requirements for the baccalaureate not be completed by the date specified on the application, the petition for postbaccalaureate credit becomes null and void

## Special Studies Courses

The University makes arrangements through Special Studies 495 and 595 for advanced or exceptionally talented students who want to pursue academic interests beyond the scope of the regular curriculum. Such course work is subject to the following conditions and restrictions:

1. Special studies courses are limited to upper-division students who have a) a cumulative GPA of 3.00 or better, and b) an appropriate background for undertaking the proposed topic.
2. Special studies are confined principally to on-site academic study and research projects (see internship and research assistant credit courses for other kinds of credited course work).
3. No more than 8 units of special studies work - with a maximum of 4 units per course - may be taken in any department.
4. No more than 12 units of special studies may count toward the baccalaureate.
5. Special studies may not duplicate a course that is listed in the catalog and that is normally offered within a two-year period.
6. Meetings between instructor and student should be scheduled at intervals appropriate to the topic and the number of units assigned.
7. Each unit of credit requires a minimum of 45 hours of academic work.
8. Approval for registration must be obtained from the advisor, instructor, department chair, and dean.

## Advising

All students must be advised prior to registering. Continuing students with a declared major should have met with their academic advisors during the early advising period (see your major department for dates). Students who have not been advised should contact their academic departments. Continuing undergraduates who have not declared a major will be advised at the Academic Advising Center, Salazar Hall, (707) 664-2442. Undergraduate students who have not declared a major after 60 semester units must be advised each semester. New students should contact their declared major department, or if undeclared, the Academic Advising Center, to make an advising appointment. Students who have not been advised may have holds placed on their records that will prevent them from registering.

## Declaring or Changing a Major

Enrolled SSU undergraduate students in good standing may, with prior departmental approval, change their major. A Change of Major form must be submitted to the Office of Admissions and Records with the appropriate departmental approvals. Students should contact their intended department for major change requirements and change of major periods.

## Catalog Year Requirement

Undergraduate students remaining in continuous attendance and continuing in the same major at Sonoma, at any other California State University, or in any California community college, or any combination of California community and state colleges may elect to meet the Sonoma graduation requirements in effect at the time
of their entering the major or at the time of their graduation from Sonoma. Substitutions for discontinued courses may be authorized or required by the proper campus authorities. The continuous attendance policy allows interruptions in enrollment so long as the student is enrolled at least one semester or two quarters each calendar year.

## Auditing

At Sonoma State, auditing is an informal arrangement between an auditor and a faculty member. With the permission of the instructor and if space is available, an auditor may attend a course on an informal basis. The auditor and the instructor must agree upon the extent to which the auditor will participate, and whether the auditor's work will be required and evaluated. Students do not register for these classes and no official records are maintained of these informal audits.

## Transcripts of SSU Courses

Students may obtain transcripts of their Sonoma State University records from the Office of Admissions and Records only upon written request. Include your name, date of birth, Social Security number or SSU ID number, the dates you attended SSU, where you wish the transcripts mailed, and any special instructions (e.g., hold for degree or a grade change, or whether the transcripts should be mailed in individual, sealed envelopes). All transcript requests must include a signature. The University reserves the right to withhold issuing the transcript of any student not in good financial standing with the University. Transcripts may be ordered by mail, or by fax, at (707) 664-2060. There is no charge for SSU transcripts. Please allow 5-10 business days for processing.

## Grading

## Identification of Grades

The University uses a combination of traditional and nontraditional grading options, as follows:

## Traditional Grades (A, B, C, D, F)

Letters $A, B, C$, and $D$ are passing grades; $F$ means failure. Additional + (plus) and - (minus) supplements add or subtract 0.30 grade points per unit. These apply to the $A, B, C$, and $D$ grades; there is no $\mathrm{A}+$.

## Nontraditional Grades (Cr/NC)

Credit ( Cr ) may be awarded in undergraduate classes (499 and below) for work equivalent to a letter grade of C - or better, and for graduate-level classes (500) for work equivalent to a $B$ - or better. NC, indicating No Credit, is given for work equivalent to $D+$ and below for undergraduate classes and $\mathrm{C}+$ and below for graduatelevel classes.

In classes in which there is an option between traditional and nontraditional grading modes, the mode must be declared using Web Registration by Census day. (See www.sonoma.edu/ar or the
appropriate Schedule of Classes for instructions.) Undergraduate students may count a maximum of 24 units of Cr (credit) grades toward their undergraduate degree.

For students applying for degrees under catalog years beginning in Fall 1988, only courses graded A-F may be applied toward major and minor requirements, except for courses not available in the A-F mode. Thus, a course taken Cr/NC when the alternative is available can be counted only as an elective or toward the general education requirements. This provision is enforced only when the student applies for graduation rather than upon each class enrollment. Students taking more than the maximum number of Cr units will be required to complete more than the minimum number of units required for the degree.

All nontraditionally graded units earned at other institutions that have been accepted for transfer will be accepted toward the bachelor's degree. If fewer than 24 such units are transferred, they will count toward the 24 -unit limit. If 24 or more such units have been accepted, no additional $\mathrm{Cr} / \mathrm{NC}$ course may be taken unless it is offered $\mathrm{Cr} / \mathrm{NC}$ only and is required for the major.

All lower-division general education units earned in the Hutchins School will be acceptable for graduation, irrespective of their number, up to the 48 units that constitute the Hutchins School general education program. A student who completes at least $24 \mathrm{Cr} / \mathrm{NC}$ units in the Hutchins School general education program may not take other $\mathrm{Cr} / \mathrm{NC}$ courses unless the units are earned in a course that is available only on a Cr/NC grading basis and is required for the major. Graduate students may, at the discretion of the department, take up to one-third of the total units applied to their master's degree in a nontraditional grading mode. Each department will designate those courses that may be graded only in the Cr/NC mode.

## Definitions of Grading Symbols

The accompanying grade chart indicates grade symbols and their numerical equivalents for evaluating coursework. In addition, more complete definitions of administrative grades are provided.

## Grades

Symbol A
A-
B+
B
B-
C+
C
C-
D+
D Minimum Performance
D-
F Failure
$\mathrm{Cr} \quad$ Credit
NC No Credit
I Incomplete

## Grade Points

4.0 per unit value of course
3.7 per unit value of course
3.3 per unit value of course
3.0 per unit value of course
2.7 per unit value of course
2.3 per unit value of course
2.0 per unit value of course
1.7 per unit value of course
1.3 per unit value of course

1 per unit value of course
0.7 per unit value of course

0 per unit value of course
Not applicable
Not applicable
Not applicable

| IC | Incomplete Charged | 0 per unit value of course |
| :--- | :--- | :--- |
| RP | Report in Progress | Not applicable |
| W | Withdrawal | Not applicable |
| WU | Withdrawal Unauthorized | 0 per unit value of course |
| RD | Report Delayed | Not applicable |
| PRV | Provisional Graduate Credit | Not applicable |

## Incomplete (I)

The symbol "l" indicates that a portion of required course work has not been completed and evaluated in the prescribed time period due to unforeseen, but fully justified, reasons and that there is still a possibility of earning credit. It is the responsibility of the student to bring pertinent information to the attention of the instructor and to determine from the instructor the remaining course requirements that must be satisfied to remove the Incomplete. A final grade is assigned when the work agreed upon has been completed and evaluated.
An Incomplete shall be converted to the appropriate grade or symbol within one year following the end of the term during which it was assigned provided. Where campus policy requires assignment of final grades on the basis of numerous demonstrations of competency by the student, it may be appropriate for a faculty member to submit a letter grade to be assigned in the event the Incomplete is not made up within one year. If the Incomplete is not converted within the prescribed time limit, it shall be counted as a failing grade in calculating grade point average and progress points unless the faculty member has assigned a grade in accordance with campus policy.

## Incomplete Charged (IC)

This limitation prevails whether or not the student maintains continuous enrollment. Failure to complete the assigned work will result in an "I" being converted to an "IC" symbol, unless the faculty member assigns a specific letter grade at the time the Incomplete is assigned, which would replace the "l" in the student's record at the end of the calendar year deadline. If the Incomplete is not converted within the prescribed time limit, it shall be counted as a failing grade (if the course was registered as a graded course) in calculating grade point average and progress points unless the faculty member has assigned a grade in accordance with campus policy. If the course was registered as CR/NC, a NC will be assigned as the final grade.

## Repeat (RPT)

The "RPT" grade indicates course has been approved as repeat. Units are not used in calculation of grade point.

## Report in Progress (RP)

The "RP" symbol is used in connection with courses that extend beyond one academic year. It indicates that work is in progress but that assignment of a final grade must await completion of additional work. Work is to be completed within one year except for graduate degree theses.

Enrollment for more units of credit than the total number of units that can be applied to the fulfillment of the student's educational
objective is prohibited. Work is to be completed within a stipulated time. This may not exceed one year, except for graduate degree theses, for which the time may be up to two years, but may not exceed the overall time limit for completion of all master's degree requirements. Any extension of time limits must receive prior authorization by the Associate Vice President for Academic Programs and Graduate Studies.

## Report Delayed (RD)

The "RD" symbol is an administrative grade used when a grade has not yet been determined for the student or has been delayed in the grade reporting process.

## Withdrawal (W)

"W" indicates that the student withdrew from the course after the end of the add/drop period but before the end of the eighth week of instruction. It carries no connotation of quality of student performance and is not used in calculating grade point.

## Withdrawal Unauthorized (WU)

The symbol "WU" indicates that an enrolled student did not withdraw from the course and failed to complete course requirements. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible. For purposes of grade point average and progress point computation, this symbol is equivalent to an "F."

## Credit (Cr)

"CR" grades are not included in the calculation of grade point average.

## No Credit (NC)

"NC" grades are not included in the calculation of grade point average.

## Grade Reporting

Approximately two weeks following the end of finals, grades will be available to view online. Any discrepancies should be reported directly to the instructor so that they may be promptly investigated. No changes to the permanent record will be made after a degree has been awarded.

## Dean's List

Undergraduate students who earn at least a 3.50 GPA in a minimum of 12 units of letter-graded work will be awarded Dean's List recognition. Courses taken from Extended Education or credit by examination will not be included in this calculation. Only the grades for one semester will be used in the computation of the GPA for purposes of granting this recognition.

## Academic Records

Student academic records are maintained by the Office of Admissions and Records. These records are considered confidential and, while available to faculty members for advising purposes, the information contained is subject to very strict control. Parents of minor students
have authorized access to the academic records of their children. All other persons requesting access to academic records, including governmental investigators and parents of students 18 years old or older, must have the student's written permission.

A student's permanent academic record cannot be changed except where an error in recording has occurred or by approval of the proper University authority. One year is allowed for errors to be identified by a student and corrected by the Office of Admissions and Records or for a petition to be submitted. Records will not be changed once a degree has been awarded.

Individuals may have access to their official records by appointment with the Office of Admissions and Records. Records of work done at other institutions cannot be copied; students' files will be kept for no more than five years after the semester last attended.

## Diplomas

When students apply for graduation, they will be asked how they wish their name to appear on the diploma. The name must be legally and verifiably their own as it appears on an appropriate form of identification, such as a driver's license or Social Security card.
Family names and nicknames cannot be used. The policy applies for reissued diplomas and certificates as well.

Diplomas are mailed approximately eight weeks after the graduation date. A replacement copy of a lost diploma may be purchased for $\$ 10$.

## Scholastic Status

Grade point average (GPA), used as a measurement of satisfactory scholarship, is calculated by dividing the number of grade points by the number of units attempted for the grades of $A, B, C, D, F, W U$, and IC. CR and NC are not used in this calculation.

## Academic Standing

Academic standing refers to the quality of a student's academic work at the University. Students falling below acceptable standards are placed on academic probation and become subject to academic disqualification should the quality of their academic work not improve to meet minimum standards. Academic Standing is calculated for all college units attempted (cumulative GPA) and for all units attempted at Sonoma State University (resident GPA).

## Good Standing

Undergraduate students who have maintained satisfactory scholarship with at least a 2.00 cumulative grade point average and their SSU resident GPA are in good standing. Post-baccalaureate and Graduate students who have maintained satisfactory scholarship with at least a 3.0 cumulative grade point average are in good standing. Undergraduate or graduate students who fall below the GPA standards above may be placed on Academic Probation or Academic Disqualification. Students who are on Academic Probation or Academic Disqualification are not considered to be in good standing.

## Academic Probation and Academic Disqualification

Academic Standing is run twice a year at the end of the Spring and Fall semesters. There are two probationary and disqualification statuses to which students may be subject: academic or administrative. Grade changes made after the running of academic standing will not be reflected until academic standing is run following the next graded semester.

## Academic Probation

An undergraduate student is subject to academic probation if at any time the cumulative grade point average in all college work attempted or cumulative grade point average at the campus where enrolled falls below 2.0 (Title 5. California Code of Regulations, Section 41300 (a)).

An undergraduate student shall be removed from academic probation when the cumulative grade point average in all college work attempted and the cumulative grade point average at the campus where enrolled is 2.0 or higher.

Probation and Disqualification of post-baccalaureate and graduate students are subject to Section 41300 (d), (e), and (f) of Title 5 and criteria established by the campus.
Undergraduate 2.00
Post-baccalaureate Student (credential, graduate, etc.) 3.00

## Academic Disqualification

As authorized by Section 41300 (b) of Title 5, undergraduate students on academic probation are subject to academic disqualification when they fall below a 2.00 (C) average by the number of grade points indicated either for all units attempted or for all units attempted at Sonoma State University.

## Class Level <br> Minimum GPA

Freshmen (0-29 units completed) 1.50
Sophomores (30-59 units completed) 1.70
Juniors (60-89 units completed) 1.85
Seniors (90 or more units completed) 1.95
Undergraduate students who have been disqualified may not apply for immediate reinstatement. Students who have been disqualified and who have been separated from the University for at least one semester may apply to the University Standards Committee for reinstatement. The Committee shall take into consideration qualitative and quantitative evidence of the student's ability to overcome his/her grade point deficit (SSU or cumulative); lower-division students shall normally be expected to complete enough transferable college-level course work elsewhere to raise their cumulative average to at least 2.0 before applying for reinstatement.

During the time you are away from SSU, you should (a) plan to retake any course(s) for which you received grades of C-, D, F, WU, or IC and (b) examine the circumstances that led to your unsatisfactory performance and make appropriate adjustments to ensure that the circumstances do not recur.
As a disqualified student, you are not eligible to take classes at Sonoma State University, including Extended Education or Open University courses.

As authorized by Section 41300 c of Title 5, SSU may disqualify an individual not on probation when the following circumstances exist:
A. At the end of any term, the student has a cumulative grade point average below 1.0 and
B. The cumulative grade point average is so low that in view of the student's overall educational record, it seems unlikely that the deficiency will be removed within a reasonable period.

Graduate and other Post-baccalaureate students: Minimum GPA 3.0. A graduate student on academic probation who fails to earn sufficient grade points for removal from probationary status is subject to academic disqualification.
Notice of Disqualification: Students who are disqualified at the end of an enrollment period under any of the provisions of Executive Order 823 will be notified before the beginning of the next consecutive regular enrollment period. Students disqualified at the beginning of a summer enrollment break should be notified at least one month before the start of the fall term.

## Academic Disqualification of Students not on Probation

A student not on probation may be disqualified if a) at the end of any term, the student has a cumulative GPA below 1.0, AND b) the cumulative GPA is so low that, in view of the student's overall educational record, it seems unlikely that the deficiency will be removed within a reasonable period, as determined by the registrar in consultation with the University Standard Committee. Such disqualifications may be appealed to the University Standards Committee.

## Administrative-Academic Disqualification

Students may be placed in administrative-academic disqualified status for continued failure to remedy the condition resulting in their being on administrative academic probation. Additionally, the President may designate a campus official to act for him or her in the disqualification of students not on probation when: 1) a student has, at the end of any term, fewer cumulative grade points than cumulative units attempted; and 2) the cumulative grade point deficiency is so great that, in view of the student's overall educational program, it seems unlikely that the deficiency will be corrected within a reasonable period of time. A student disqualified from the University may be reinstated only by special action.

## Reinstatement after Disqualification

No student is academically disqualified from the University on the basis of a single semester of unsatisfactory work unless eligible for Administrative-Academic Disqualification. However, a student who has been at the University for more than one semester and whose SSU grade point average results in disqualification will not be allowed to apply for readmission to the University until he/she has been away from the University for a period of time (generally a minimum of one semester) and has demonstrated academic success (or an equivalent experience) in another environment.
Disqualified students may be considered for reinstatement by pe-
titioning to the University Standards Committee (in care of the Office of Admissions and Records). Petitions must be accompanied by evidence (such as satisfactory academic work elsewhere) that would justify reinstatement and a letter of support from the student's SSU major department. Petitions are reviewed and approved or denied by the University Standards Committee. Disqualified students who are reinstated will be on a probationary basis until all grade point deficiencies have been removed or until they are again disqualified. Students who have been reinstated after disqualification and then disqualified again will not be reinstated except under exceptional circumstances.

## Course Repeat

In accordance with CSU Executive Order No. 1037, it is the policy of Sonoma State University that:

## I. Undergraduate Repeat Policy

Undergraduate students may repeat a maximum of 28 units of courses taken at SSU. This maximum does not apply to courses that can be taken repeatedly for credit, such as certain P.E. and music courses. Courses repeatable for credit are so indicated in the course catalog.

## A. Eligibility to Repeat a Course:

1. A student may repeat a course at SSU for grade replacement ONLY if the first attempt resulted in a grade of $\mathrm{C}-$, $\mathrm{D}+$, D, D-, F, WU, NC, or IC.
2. A student may not re-enroll in a course for which he or she has received an "l" until that "l" has been converted to a grade other than "I", such as A-F, IC, or NC.
3. No course in which a student has earned a grade of C or above may be repeated.

## B. Repeating a Course in which a student earned a grade of C- or below:

1. Students who have earned a grade lower than a C (C- or below) may, with permission of the department offering the course, repeat an SSU course for grade replacement or grade averaging (as defined below).
2. Departments may limit the number of times a specific course may be repeated.
3. Any course or program where enrollment demand exceeds the resources to offer sufficient openings or sections to meet that demand, the academic unit may give enrollment priority to students taking the course for the first time.
4. Courses originally taken at SSU may also be repeated at another college campus for grade replacement or grade averaging (as defined below), as long as the department offering the course at SSU agrees, in advance and in writing, that the course is an exact replacement for the relevant SSU course or a substantially equivalent course.

## C. Repeating a Course in which a student received a grade of C or above:

1. No course in which a student has earned a grade of $C$ or above may be repeated for grade replacement.
2. For students who need a higher grade in order to enter or progress in a particular academic program, several options are available:
a. Such a student may repeat the course, with permission of the relevant department, through SSU's Extended Education Intersession offerings.
b. Or the student may be able, with permission of the relevant department, to take an equivalent course at another college campus.
c. Or the student may petition for a waiver of the policy (defined in Section IA above) requiring a grade of C- or below in order to repeat a course. The petition, which must be submitted to the Office of Admissions \& Records before the student can register for the course in question, would require the review and support of both the Department Chair of the program for which the grade is required and the Department Chair of the course in question.
d. In all of the above cases, the units of the repeated course will not count toward SSU graduation requirements and will be listed as "excess units" on the student's transcript.
e. A course repeated under this provision will be subject to grade averaging as described below.
D. Grade Replacement: Subject to the restrictions above, students may repeat up to 16 units of coursework for "grade replacement." In this case, only the grade (even if it is lower) and units earned in the second attempt will be used in the SSU calculation of grade point average. A student may repeat a given course to replace the grade only once, even if the second attempt results in a grade of C - or below.
E. Grade Averaging: Subject to the restrictions above, students may repeat an additional 12 semester units of coursework without replacing the grade. In this case, all grades for the course will be calculated in the SSU grade point average. However units from a repeated course will only count once toward graduation. (Thus a 3 unit course repeated once will only contribute 3 units, not 6 units, toward graduation.)
E. In any course or program where enrollment demand exceeds the resources to offer sufficient openings or sections to meet that demand, the academic unit may give enrollment priority to students taking the course for the first time.

## II. Graduate and Post-Baccalaureate Repeat Policy

A. A student may not re-enroll in a course for which he or she has received an "I" until that "I" has been converted to a grade other than "I", such as A-F, IC, or NC.
B. Graduate and Post-Baccalaureate students may petition the appropriate academic program to repeat courses in which they have earned a grade of B- or lower, or WU, or IC for grade replacement and may repeat only with the departmental approval and in accordance with departmental policy.
C. A course may be repeated only once, and no more than two courses may be repeated within a program of study or while in Post-Baccalaureate study.

## Excessive Enrollment

If a student enrolls in the same course beyond catalog limitations, units earned will not be counted toward a baccalaureate. The grades and any grade points earned, however, will be averaged with the student's other grades.

## Academic Renewal

The trustees of the California State University have established a program of academic renewal whereby students who are having difficulty meeting graduation requirements due to a grade point deficiency may petition to have up to two semesters or three quarters of previous college work discounted from all considerations associated with meeting requirements for the baccalaureate. Academic renewal is intended only to facilitate graduation from SSU and is not applicable for individuals who already possess a baccalaureate or who meet graduation requirements without the approval of a petition for academic renewal.

Conditions: To qualify for academic renewal, all of the following conditions established by the trustees must be met:

1. The student must present evidence in the petition that the coursework to be disregarded was substandard and not representative of the student's present scholastic ability and level of performance, because of extenuating circumstances.
2. The student must present evidence that if the petition is denied, it would be necessary for the student to enroll in additional coursework involving one or more additional terms in order to qualify for graduation. The student should include the specific coursework or requirements involved. Normally students should have completed 90 units prior to filing the petition.
3. Five years must have elapsed since the term or terms to be disregarded were completed. Terms taken at any institution may be disregarded.
4. Subsequent to the completion of the term(s) to be disregarded, the student must have completed the following coursework at Sonoma State University: 15 semester units with at least a 3.00 GPA , or 30 semester units with at least a 2.50 GPA, or 45 semester units with at least a 2.00 GPA.

If and when the petition is granted, the student's permanent academic record will be annotated so that it is readily evident to all users of the record that no work taken during the disregarded term(s), even if satisfactory, will apply toward baccalaureate graduation requirements. However, all work will remain legible on the record to ensure a true and complete academic history.

A final decision on the petition will be made by the University Standards Committee. The Committee will review petitions only if all of the basic requirements (indicated above) are met. Normally, students will be notified of the decision within 30 days after the completed petition is submitted.

## Class Attendance

Students should not miss classes except for valid reasons, such as illness, accidents, or participation in officially approved University activities. When students are absent from classes, it is their responsibility to inform the instructor of the reason for absence and to arrange to make up missed assignments and class work. Students should be cautioned that even though absences may be for valid reasons, such absences can impair performance and result in a lower grade.

## Graduate and Postbaccalaureate Regulations

1. No fewer than one-half of the units shall be in graduate (500level) courses.
2. A classified student must continue to demonstrate, throughout enrollment in the graduate program, the level of competence required to be successful in the completion of the requirements. This evaluation of competence is primarily the responsibility of faculty actively teaching in the program.
3. The master's program contract advances the student to candidacy and must be filed no later than the time the student files for graduation.
4. At least 21 semester units shall be completed in residence.
5. At least 18 semester units shall be completed in the major.
6. No more than 6 semester units shall be allowed for a thesis.
7. No more than 9 units of Extension or transfer credit (or combination of the two) may be allowed, subject to the approval of the department concerned.
8. No credit toward a master's degree will be given for student teaching in a credential program.
9. The candidate must complete a thesis, project, or comprehensive exam as required by the department. Culminating projects that are published by the library require review by the Graduate Studies Office, as well as the student's faculty committee. A public defense of the thesis or project is required.
10. Graduate students at Sonoma State University may, at the discretion of the department, take up to one-third of the total units applied to the master's degree in a nontraditional grading mode.
11. The student may take three semesters to complete the thesis/project following initial enrollment in the units. The SP grade will remain until the student submits the culminating project. Projects taking more than four semesters to complete will require approval by the Associate Vice Provost for

Academic Programs and Graduate Studies, the appropriate campus authority, or re-enrollment in units.

## Change in Graduate Standing

Many students are admitted to the University in conditionally classified standing with contingencies to remove prior to becoming a classified student. This admission does not guarantee a space in the graduate program. Such a guarantee is obtained by a change in graduate standing to classified status verified by the program in question. Each department has its own procedures for granting the student a place in its program. At the time this status is confirmed, a Change in Graduate Status form is filed with the Admission and Records Office and the Graduate Studies Office confirming the department's approval of this change in status. Changes to graduate status may not be processed until the end of the semester.
Students who were graduated with a bachelor's degree from a foreign institution and change from working toward a second bachelor's to a graduate program must submit a TOEFL score of at least 550.

## Student Policies

## Privacy Rights of Students in Education Records

The federal Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232g) and regulations adopted thereunder (34 C.F.R. 99) set out requirements designed to protect students' privacy in their records maintained by the campus. The statute and regulations govern access to student records maintained by the campus and the release of such records. The law provides that the campus must give students access to records directly related to the student, and must also provide opportunity for a hearing to challenge the records if the student claims they are inaccurate, misleading, or otherwise inappropriate. The right to a hearing under this law does not include any right to challenge the appropriateness of a grade determined by the instructor. The law generally requires the institution to receive a student's written consent before releasing personally identifiable data about the student. The institution has adopted a set of policies and procedures governing implementation of the statute and the regulations. Among the types of information included in the campus statement of policies and procedures are (1) the types of student records maintained and the information they contain; (2) the official responsible for maintaining each type of record; (3) the location of access lists indicating persons requesting or receiving information from the record; (4) policies for reviewing and expunging records; (5) student access rights to their records; (6) the procedures for challenging the content of student records; (7) the cost to be charged for reproducing copies of records; and (8) the right of the student to file a complaint with the Department of Education. The Department of Education has established an office and review board to investigate complaints and adjudicate violations. The designated office is Family Policy Compliance Office, U.S. Department of Education, Washington, D.C. 20202-4605.

The campus is authorized under the Act to release "directory information" concerning students. "Directory information" may include the student's name; address; telephone listing; electronic mail address; photograph; date and place of birth; major field of study; participation in officially recognized activities and sports; weight and height of members of athletic teams; dates of attendance; grade level; enrollment status; degrees, honors, and awards received; and the most recent previous educational agency or institution attended by the student. The above-designated information is subject to release by the campus at any time unless the campus has received prior written objection from the student specifying information which the student requests not be released. Written objections should be sent to the Office of Admissions and Records.

The campus is authorized to provide access to student records to campus officials and employees who have legitimate educational interests in such access. These persons have responsibilities in the campus's academic, administrative, or service functions and have reason for using student records associated with their campus or other related academic responsibilities. Student records may also be disclosed to other persons or organizations under certain conditions (e.g., as part of the accreditation or program evaluation; in response to a court order or subpoena; in connection with financial aid; or to other institutions to which the student is transferring).

It is the policy of Sonoma State University to comply fully with the provisions of the Family Educational Rights and Privacy Act. That act requires educational institutions to define as "directory information" that information "contained in an education record that would generally not be considered harmful or an invasion of privacy if disclosed." Sonoma State University considers the following to be directory information:

## Name

Address*
Telephone listing*
E-mail address*
Major field of study
Dates of attendance
Grade level
Enrollment status (e.g., graduate or undergraduate; full-time or part-time)
Participation in intercollegiate athletics
Degrees received
Most recent educational agency or institution attended.
*Verify only, and for valid educational reasons.
(Note that FERPA allows schools to disclose educational records, including but not limited to directory information, without consent to school officials with legitimate educational interests.)

It is the policy of Sonoma State University to disclose or verify the directory information regarding its students as listed above if requested to do so, unless an individual student has indicated in the student record system that he or she does not wish to have information disclosed or verified. Students are responsible for main
taining an accurate record of their FERPA intentions in the student record system.

In accordance with FERPA, information other than this directory information is released to third parties only when a valid written consent to disclose, signed by the student, is presented.

## Career Placement

Sonoma State University may furnish, upon request, information about the employment of students who graduate from programs or courses of study preparing students for a particular career field. This information includes data concerning the average starting salary and the percentage of previously enrolled students who obtained employment. The information may include data collected from either graduates of the campus or graduates of all campuses in the California State University System.

## Immigration Requirements for Licensure

The Personal Responsibility and Work Opportunity Reconciliation Act (PRAWORA) of 1996 (P.L. 104-193), also known as the Welfare Reform Act, includes provisions to eliminate eligibility for federal and state public benefits for certain categories of lawful immigrants as well as benefits for all illegal immigrants.

Students who will require a professional or commercial license provided by a local, state, or federal government agency in order to engage in an occupation for which the CSU may be training them must meet the immigration requirements of the new Personal Responsibility and Work Opportunity Reconciliation Act to achieve licensure.

## Pre-Enrollment Immunization Requirements

## Measles and Rubella (MMR)

The CSU System requires that entering students born after December 31, 1956 provide photocopies of official immunization records showing full immunization against measles and rubella (given as MMR). Full immunization consists of a series of two appropriately timed MMR shots.

## Hepatitis B

The California state law also requires that all students who are under age 19 at the time of first enrollment show proof of completion of the full series of three Hepatitis B shots or blood test proof of immunity to Hepatitis $B$. This requirement persists until fully satisfied, regardless of subsequent age.

Students who are unable to locate medical immunization records may submit photocopies of official California High School immunization records or may submit copies of blood tests that confirm that they are immune to measles and rubella, and, if applicable, to Hepatitis B.

This documentation must be submitted well in advance of the start of the student's first semester of classes. Students who fail to submit records on time will be prohibited from registering for subsequent classes. Send Immunization Records to:

## Sonoma State University

## Office of Admissions and Records

ATTN: Immunization Requirements
1801 E. Cotati Ave.
Rohnert Park, CA, 94928
The SSU Student Health Center can provide MMR and Hepatitis B immunizations or blood tests to confirm immunity at reduced cost to entering students who have been accepted and paid their Enrollment Reservation Deposit to SSU.

Meningococcal Disease is a rare but potentially fatal infection that occurs more frequently in college students, especially undergraduates living in Residence Halls. In accordance with California law, college students living in Residence Halls or other close living situations must be advised of the availability of meningococcal vaccine to lower the risk of becoming infected, although proof of this vaccine is not required to attend SSU.

Detailed information about immunization requirements and recommendations can be found at http://www.sonoma.edu/SHC/ immuniz.html

## Student Conduct / Judicial Affairs

Salazar Hall, 1070
(707) 664-3377

The President of the University has authority in disciplinary actions. In compliance with CSU Executive Order 1043 the President may assign a campus official or officials to be the Student Conduct Administrator, whose responsibility is to determine whether to initiate disciplinary action under the Student Conduct Code. The Assistant Vice President for Student Affairs is the designated Student Conduct Administrator for this University.

## Mission Statement

Our mission is to ensure the fair administration of the student conduct process while supporting a safe and inclusive educational environment for all students. Through this process, our goal is to educate students about their rights and responsibilities as well as provide feedback about behaviors that affect both themselves and the campus community.

## Student Disciplinary Procedures

Inappropriate conduct by students or by applicants for admission is subject to disciplinary action by the University as provided in sections 41301 through 41304 of Title 5 of the California Code of Regulations. The purpose of the code is to provide procedures that are fair and just, both to the student charged and to the institution, by which it can be determined whether violations of conduct have occurred. A complaint against a student for an alleged violation of conduct (as defined in Sections 41301 through 41304 of Title 5) may be filed by a student, faculty member, staff member, University police officer, or community member. The complaint should be filed with the Student Conduct Administrator, who will investigate the alleged violation. The administrator will hold a conference with the
student to obtain his or her response to the alleged misconduct and to determine if the complaint may be dealt with informally by mutual consent through a student discipline settlement agreement. If the allegations of misconduct have not been resolved informally by conference and the Student Conduct Administrator determines that formal disciplinary action should be taken, the Student Conduct Administrator shall initiate the disciplinary action process by written Notice of Hearing. This notice shall be served in person or served by certified mail return receipt requested to the student charged at the last known address on campus records. For detailed information about the Notice of Hearing process and requirements, please refer to CSU Executive Order 970. At any point in the process, the student may waive a hearing and accept a sanction without admitting that he or she engaged in the conduct charged. The hearing will be conducted by a hearing officer, who will be an administrative officer of the University appointed by the President. The hearing officer will submit a report and recommendations to the President, who will decide the matter, notify the student, and take action as appropriate. Discipline that may be imposed includes, but is not limited to, probation, suspension, and expulsion.

## Student Discipline

Inappropriate conduct by students or by applicants for admission is subject to discipline as provided in Sections 41301 through 41304 of Title 5, California Code of Regulations. These sections are as follows:

## s 41301. Standards for Student Conduct

(a) Campus Community Values

The University is committed to maintaining a safe and healthy living and learning environment for students, faculty, and staff. Each member of the campus community should choose behaviors that contribute toward this end. Students are expected to be good citizens and to engage in responsible behaviors that reflect well upon their university, to be civil to one another and to others in the campus community, and contribute positively to student and university life.
(b) Grounds for Student Discipline

Student behavior that is not consistent with the Student Conduct Code is addressed through an educational process that is designed to promote safety and good citizenship and, when necessary, impose appropriate consequences. The following behavior is subject to disciplinary sanctions:
(1) Dishonesty, including:
(A) Cheating, plagiarism, or other forms of academic dishonesty that are intended to gain unfair academic advantage.
(B) Furnishing false information to a University official, faculty member, or campus office.
(C) Forgery, alteration, or misuse of a University document, key, or identification instrument.
(D) Misrepresenting one's self to be an authorized agent of the University or one of its auxiliaries.
(2) Unauthorized entry into, presence in, use of, or misuse of University property.
(3) Willful, material, and substantial disruption or obstruction of a University-related activity, or any on-campus activity.
(4) Participating in an activity that substantially and materially disrupts the normal operations of the University, or infringes on the rights of members of the University community.
(5) Willful, material, and substantial obstruction of the free flow of pedestrian or other traffic, on or leading to campus property or an off-campus University related activity.
(6) Disorderly, lewd, indecent, or obscene behavior at a University related activity, or directed toward a member of the University community.
(7) Conduct that threatens or endangers the health or safety of any person within or related to the University community, including physical abuse, threats, intimidation, harassment, or sexual misconduct.
(8) Hazing, or conspiracy to haze, as defined in Education Code Sections 32050 and 32051:
"Hazing" includes any method of initiation or pre-initiation into a student organization, or any pastime or amusement engaged in with respect to such an organization which causes, or is likely to cause, bodily danger, physical harm, or personal degradation or disgrace resulting in physical or mental harm, to any student or other person attending any school, community college, college, university, or other educational institution in this state; but the term "hazing" does not include customary athletic events or other similar contests or competitions.

A group of students acting together may be considered a "student organization" for purposes of this section whether or not they are officially recognized. Neither the express or implied consent of a victim of hazing, nor the lack of active participation while hazing is going on is a defense. Apathy or acquiescence in the presence of hazing is not a neutral act and is also a violation of this section.
(9) Use, possession, manufacture, or distribution of illegal drugs or drug-related paraphernalia (except as expressly permitted by law and University regulations), or the misuse of legal pharmaceutical drugs.
(10) Use, possession, manufacture, or distribution of alcoholic beverages (except as expressly permitted by law and University regulations), or public intoxication while on campus or at a University related activity.
(11) Theft of property or services from the University community, or misappropriation of University resources.
(12) Unauthorized destruction, or damage to University property or other property in the University community.
(13) Possession or misuse of firearms or guns, replicas, ammunition, explosives, fireworks, knives, other weapons, or dangerous chemicals (without the prior authorization of the campus President) on campus or at a University related activity.
(14) Unauthorized recording, dissemination, or publication of academic presentations (including handwritten notes) for a commercial purpose.
(15) Misuse of computer facilities or resources, including:
(A) Unauthorized entry into a file, for any purpose.
(B) Unauthorized transfer of a file.
(C) Use of another's identification or password.
(D) Use of computing facilities, campus network, or other resources to interfere with the work of another member of the University community.
(E) Use of computing facilities and resources to send obscene or intimidating and abusive messages.
(F) Use of computing facilities and resources to interfere with normal University operations.
(G) Use of computing facilities and resources in violation of copyright laws.
(H) Violation of a campus computer use policy.
(16) Violation of any published University policy, rule, regulation, or Presidential order.
(17) Failure to comply with directions of, or interference with, any University official or any public safety officer while acting in the performance of his/her duties.
(18) Any act chargeable as a violation of a federal, state, or local law that poses a substantial threat to the safety or well-being of members of the University community, to property within the University community, or poses a significant threat of disruption or interference with University operations.
(19) Violation of the Student Conduct Procedures, including:
(A) Falsification, distortion, or misrepresentation of information related to a student discipline matter.
(B) Disruption or interference with the orderly progress of a student discipline proceeding.
(C) Initiation of a student discipline proceeding in bad faith.
(D) Attempting to discourage another from participating in a student discipline matter.
(E) Attempting to influence the impartiality of any participant in a student discipline matter.
(F) Verbal or physical harassment or intimidation of any participant in a student discipline matter.
(G) Failure to comply with the sanction(s) imposed under a student discipline proceeding.
(20) Encouraging, permitting, or assisting another to do any act that could subject him or her to discipline.
(c) Procedures for Enforcing This Code

The Chancellor shall adopt procedures to ensure students are afforded appropriate notice and an opportunity to be heard before the University imposes any sanction for a violation of the Student Conduct Code.
(d) Application of This Code

Sanctions for the conduct listed above can be imposed on applicants, enrolled students, students between academic terms, graduates awaiting degrees, and students who withdraw from school while a disciplinary matter is pending. Conduct that threatens the safety or security of the campus community, or substantially disrupts the functions or operation of the University, is within the jurisdiction of this Article regardless of whether it occurs on or off campus. Nothing in this Code may conflict with Education Code Section 66301 that prohibits disciplinary action against students based on behavior protected by the First Amendment.

Note: Authority cited: Sections 66017, 66452, 66600, 69810, 89030, and 89035, Education Code. Reference: Sections 66450, 69813 et seq. and 89030, Education Code.
(e) Summary of Civil and Criminal Penalties for Violation of Federal Copyright Laws
As referenced earlier in Section XXI, Student Conduct (15) (G) the penalties for copyright infringement include civil and criminal penalties. In general, anyone found liable for civil copyright infringement may be ordered to pay either actual damages or "statutory" damages affixed at not less than $\$ 750$ and not more than $\$ 30,000$ per work infringed. For "willful" infringement, a court may award up to $\$ 150,000$ per work infringed. A court can, in its discretion, also assess costs and attorneys' fees. For details, see Title 17, United States Code, Sections 504, 505. Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to $\$ 250,000$ per offense.

## 41302. Disposition of Fees: Campus Emergency; Interim Suspension

The President of the campus may place on probation, suspend, or expel a student for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such student for the semester, quarter, or summer session in which he or she is suspended or expelled shall be refunded. If the student is readmitted before the close of the semester, quarter, or summer session in which he or she is suspended, no additional tuition or fees shall be required of the student on account of the suspension.

During periods of campus emergency, as determined by the President of the individual campus, the President may, after consultation with the Chancellor, place into immediate effect any emergency regulations, procedures, and other measures deemed necessary or appropriate to meet the emergency, safeguard persons and property, and maintain educational activities.

The President may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to insure the maintenance of order. A student so placed on interim suspension shall be given prompt notice of charges and the opportunity for a hearing within 10 days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the President or designated representative, enter any campus of the California State University other than to attend the hearing. Violation of any condition of interim suspension shall be grounds for expulsion.

## 41303. Conduct by Applicants for Admission

Notwithstanding any provision in this Chapter 1 to the contrary, admission or readmission may be qualified or denied to any person who, while not enrolled as a student, commits acts which, were he enrolled as a student, would be the basis for disciplinary proceedings pursuant to Sections 41301 or 41302 . Admission or readmission may be qualified or denied to any person who, while a student, commits acts which are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases shall be determined under procedures adopted pursuant to Section 41304.

## 41304. Student Disciplinary Procedures for the California State University

The Chancellor shall prescribe, and may from time to time revise, a code of student disciplinary procedures for the California State University. Subject to other applicable law, this code shall provide for determinations of fact and sanctions to be applied for conduct which is a ground of discipline under Sections 41301 or 41302 , and for qualified admission or denial of admission under Section 41303; the authority of the campus President in such matters; conduct related determinations on financial aid eligibility and termination; alternative kinds of proceedings, including proceedings conducted by a Hearing Officer; time limitations; notice; conduct of hearings, including provisions governing evidence, a record, and review; and such other related matters as may be appropriate. The Chancellor shall report to the Board actions taken under this section.

## Compliance

For information on Sonoma State University's compliance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act and the Drug Free Schools and Communities Act, please visit the Police and Parking Services website at www.sonoma.edu/ps/

## Student Grievance Procedures

Dispute Resolution Board
Stevenson 1027
(707) 664-2801
www.sonoma.edu/senate/DRB/DRB.html
A grievance may arise out of a decision or action reached or taken in the course of official duty, following a specific policy or procedure, by a member of the faculty, staff, or administration of Sonoma State University. The purpose of the grievance procedures is to provide a process for an impartial review and to ensure that the rights of students are properly recognized and protected. A student who wishes to initiate the grievance process should read the Grievance Policy, the Formal Dispute Resolution Policy, and may contact the current chair of the Fairness Board or the Academic Senate Office. The above mentioned policies can be found online at www.sonoma.edu/senate/ FairnessBoard/FairnessBoard.html

## Grade Appeal

In order to protect the rights of students and faculty, principles of due process are incorporated into the grade appeal procedures. A student who wishes to initiate a grade appeal procedure should read the Grade Appeal Policy, the Formal Dispute Resolution Policy, and may contact the current chair of the Fairness Board or the Academic Senate Office. The above mentioned policies can be found online at www.sonoma.edu/senate/FairnessBoard/FairnessBoard.html.

## Financial Aid Appeal Policy

Students have the right to appeal their financial aid award or any other financial aid decision that they feel affects them adversely and that falls outside of the jurisdiction of federal, state, or Chancellor's office regulations. This right includes answers to questions, explanations of financial aid policies and procedures, and a request for reconsideration. The initial appeal is made to the student's financial aid representative. After subsequent review by the Director of Financial Aid, the student's case may ultimately be presented to the Financial Aid Advisory Committee.

## Campus Smoking Policy

Sonoma State University has a responsibility to employees, students and visitors to support and maintain a safe and healthful environment. Research shows that smoking, exposure to second hand smoke, and discarded smoking items constitute significant public and environmental health hazards. In addition, smoking can contribute to campus cleaning and maintenance expenses as well as to costs associated with absenteeism, medical care for smoke related illness, and health insurance premium levels.

In order to reduce these significant hazards, especially those associated with exposure to second hand smoke, Sonoma State University (and California State law) prohibits smoking inside and
within 20 feet of the outermost perimeter of all campus buildings and structures, including residence halls and apartments, and within 25 feet of children's play areas.

Smoking is also prohibited within 20 feet of exterior ramps, stairways, breezeways or walkways between sections of buildings, clustered outdoor seating or event areas, outdoor dining areas, bus stop shelters and other partially covered or enclosed areas, as well as during particular activities or gatherings such as Commencement, athletic events, etc. Smoking is also prohibited in any other circumstance or campus location that unavoidably exposes others to second hand smoke.

Lit or used tobacco products must be extinguished and deposited in ash urns or waste receptacles throughout the campus, and should always be discarded in this fashion before a smoke-free area is entered.

## Nondiscrimination Policy

## Race, Color, Ethnicity, National Origin, Age and Religion

The California State University complies with the requirements of Title VI and Title VII of the Civil Rights Act of 1964, as well as other applicable federal and state laws prohibiting discrimination. No person shall, on the basis of race, color, ethnicity, national origin, age, religion, marital status, pregnancy, medical condition or covered veteran status be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any program of the California State University.

## Disability

The California State University does not discriminate on the basis of disability in admission or access to, or treatment or employment in, its programs and activities. Federal laws, including sections 504 and 508 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, as amended, and various state laws prohibit such discrimination. Lisa Wyatt, Director of Counseling and Psychological Services and Disability Services for Students, has been designated to coordinate the efforts of Sonoma State University to comply with all relevant disability laws. Inquiries concerning compliance may be addressed to this person at Salazar Hall 1049, (707) 664-2153.

## Sex/Gender

The California State University does not discriminate on the basis of sex, gender or sexual orientation in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972 and certain other federal and state laws prohibit discrimination on these bases in education programs and activities operated by Sonoma State University. Such programs and activities include admission of students and employment.

The California State University is committed to providing equal opportunities to male and female CSU students in all campus programs, including intercollegiate athletics.

Inquiries concerning the application these laws to programs and activities of Sonoma State University may be referred to the Managing Director of Employee Relations and Compliance Services, the campus officer(s) assigned the administrative responsibility of reviewing such matters, or to the Regional Director of the Office for Civil Rights, United States Department of Education, 50 Beale Street, Suite 7200, San Francisco, California 94105.

## Sexual Orientation

By CSU Board of Trustees policy, the California State University does not discriminate on the basis of sexual orientation.

For policies and procedures specific to Sonoma State University, visit these websites:
SSU Nondiscrimination Policy
www.sonoma.edu/UAffairs/policies/non-discrimination.htm
SSU Discrimination Complaint Procedures
www.sonoma.edu/hs/erc/docs/dis_complaint_proced.doc

## Discrimination Complaint Procedures

Students, staff, faculty, and administrators are regularly informed of the University's policies and procedures regarding discrimination and sexual harassment/sexual assault policies and complaint procedures. In addition, all supervisors are regularly informed of their responsibility regarding complaints made against those whom they supervise.
All employees and students, female or male, who believe they have been subjected to discrimination, including sexual harassment and sexual assault, have several ways to make their concerns known. Regardless of the means selected for resolving allegations of discrimination (including sexual harassment and sexual assault), the initiation of a complaint will not cause any reflection on the reporting party nor will it affect such person's future business dealings with the University, his or her employment, compensation or work assignments, or in the case of students, grades, class selection, or other matters pertaining to his or her status as a student at the University. Every effort should be made to resolve any incident as soon as possible while the facts and potential testimony of witnesses, if any, are current.
Any complaint alleging discrimination, including sexual harassment or sexual assault, will be investigated according to the SSU nondiscrimination policy and discrimination complaint procedures. This investigation will result in findings being made and if necessary, will serve as the investigation normally carried out prior to deciding to initiate discipline. Facts gathered and any findings made during an informal or formal resolution process may be sufficient to obligate the University to take disciplinary action against a faculty member, staff member, or student, or for the University to initiate a criminal investigation. If the University pursues disciplinary action against an alleged violator, a hearing may be required. If both housing discipline and student discipline are initiated and require a hearing, the housing and student discipline hearings will be combined into one hearing. Due process guarantees exist under the
student discipline process and the appropriate employee disciplinary procedures.
Complaints of discrimination and/or sexual harassment/sexual assault will be investigated promptly and thoroughly. The University recognizes that under certain circumstances, it has an independent duty to ascertain where discrimination or sexual harassment/sexual assault exists irrespective of whether a complaint is actually filed (for example, concerns of sexual harassment involving physical contact, recurrent or systematic patterns of discrimination, and/or sexual assault involving a University employee or student).
Sexual assault is a form of sexual harassment and is also a violation of the criminal code. If a sexual assault report is made to any campus officer, the Sexual Violence Prevention Educator and the Director of Employee Diversity and University Compliance will be notified. If possible, the reporting party will be provided with the option of participating in an initial meeting to be held that includes the Managing Director of Employee Relations and Compliance and an officer from the University Police to advise the victim of various reporting options.
It is the policy of Sonoma State University that retaliation against reporting parties is prohibited. The University acts vigorously to prevent any retaliation being taken against those initiating inquiries or filing complaints; retaliation constitutes separate grounds for filing a complaint with these procedures and for potential disciplinary action against the alleged violator.
Where discrimination or sexual harassment/sexual assault has been found to occur, the University and its auxiliary organizations will impose sanctions on the individual determined to have engaged in sexually harassing or discriminatory conduct or communication at a level appropriate to the scale and scope of the violation.
Those who are considering taking action are urged to meet with the Managing Director of Employee Relations and Compliance prior to filing a complaint. Discussions at this stage can be confidential and are meant to assist in the process of determining which reporting options are most appropriate. Every effort will be made to resolve potential complaints at the lowest level possible and consistent with the desires of the person bringing forward the complaint. All current faculty, students, staff, and administrators may use the discrimination complaint process for resolving sexual harassment, sexual assault, and discrimination complaints and/or documenting that the individual has resolved a complaint. All students, faculty, or staff who believe that they may have been discriminated against, sexually harassed, or sexually assaulted should obtain a copy of the SSU discrimination complaint procedures by contacting Employee Relations and Compliance, Salazar Hall, second floor, (707) 6644470, or through our webpage at www.sonoma.edu/ERC.

## Course Outline Policy

The University Course Outline Policy states faculty shall provide students with course outlines that are compatible with course descriptions in the university catalog. Course outlines shall be provided
to students that are accessible to each student within the first full week of classes and must include the following items:

1. Name of instructor, office location, office hours, office telephone number, and email address.
2. Course number, title, and general course description including the course format, materials, and prerequisites, if any.
3. Course goals and objectives.
4. Course requirements such as written work, exams, quizzes, projects, labs, fieldwork, attendance, etc., and a tentative schedule of assignments and exams.
5. Grading policy (the relative weight of course requirements).
6. Indicate the G.E. area of the course, if applicable.

In addition, faculty are strongly encouraged to include the following items:

- Courses listed as General Education courses should print or provide URL reference to the Mission Goals and Objectives (MGOs) of General Education at SSU.
- As a reminder to the students, language such as the following is strongly recommended: "There are important University policies that you should be aware of, such as the add/drop policy; cheating and plagiarism policy, grade appeal procedures; accommodations for students with disabilities and the diversity vision statement." (For more information, go to http://www.sonoma.edu/uaffairs/policies/studentinfo.shtml)

Changes in the course outline should be communicated to students in a timely manner. Activities scheduled outside of regular class meetings, e.g. fieldtrips, may not be added as required course work after the add/drop deadline. Faculty shall inform students that it is their responsibility to read the course outline and to request any clarification of course policies. If the student adds the course after the first full week of class, it is the student's responsibility to obtain information about the course.

## UNIVERSITY SUPPORT SERVICES

## Alumni Association

Stevenson Hall 1071
(707) 664-2426

## DIRECTOR OF SSU ALUMNI ASSOCIATION

Anne Biasi
The Sonoma State University Alumni Association develops and maintains interaction with alumni, students, faculty, staff, and the community. The association provides membership services, programs, and special events for its alumni, and supports the University through direct contributions and the resources of its broad network of alumni. The association awards the Ambrose R. Nichols Scholarship and the Ronald 0. Logsdon Jr. Scholarships. In addition, the association sponsors the annual Distinguished Alumni Awards.
Membership in the Alumni Association is open to any individual who has attended Sonoma State University; associate membership is available for non-graduates. New graduates receive a complimentary one-year membership and the second year at a discounted rate. Membership benefits include: No annual fee and low percentage rate on Bank of America WorldPoints® card; access to group medical, dental, and vision insurance; library privileges at SSU and all 23 CSU campuses; discounts for auto and home insurance; SSU Alumni Link, an on-line networking community; discounts for SSU athletics and performing arts events; discounts on Lifelong Learning and Excel youth program courses; Alumnotes and E-Connection newsletters; special rates at the campus Recreation Center; access and discounted annual fee for Career Services; and much more. Life, annual, and family memberships are available. Please visit our website at www.ssualumni.org

## University Development

Stevenson Hall 1054
(707) 664-2712

## VICE PRESIDENT

Patricia McNeill
The role of University Development is to facilitate and coordinate all private philanthropic support for the University. www.sonoma.edu/development/.
Private philanthropy is essential for sustaining quality education for Sonoma State University students - now and in the future. Each generation benefits from the generosity of our alumni, parents, and friends. Donors can give outright or make a planned gift for current or future University priorities. Many donors choose to give unrestricted funds but gifts can also be designated to a specific endowment, campaign, school, department or program.

## Office of Research and Sponsored Programs

Stevenson 1024
(707) 664-2448

## SENIOR DIRECTOR, ORSP

Julia Arno
The Office of Research and Sponsored Programs (ORSP) provides assistance and resources to SSU faculty and staff pursuing internal and external funding for educational and academic research activities. The office also provides guidance on University policies and handles all aspects of the internal endorsement process. Specific services include the following:

- Assist in developing projects, writing proposals, and formulating budgets;
- Manage the campus approval and submission process to ensure compliance with agency guidelines as well as with University policies related to grants;
- Update and monitor internal policies and procedures regarding research misconduct, grant-related intellectual property issues, and faculty ethics training requirements;
- Coordinate the Faculty Subcommittee on Sponsored Programs (FSSP), including preparation of internal grant applications and administration for internal grant award programs;
- Coordinate the Institutional Review Board (IRB), including support for review of submissions requiring IRB approval and ensuring that all SSU IRB policies are updated in compliance with applicable federal, state and institutional requirements; and
- Conduct faculty workshops on proposal preparation and research compliance matters.


## Sonoma State Enterprises, Inc.

(707) 664-4068

CHIEF OPERATING OFFICER
Neil Markley
Sonoma State Enterprises, Inc., is a not-for-profit, auxiliary corporation of Sonoma State University, established to provide services that are not eligible for state funding, but are nonetheless crucial to the life of the campus. Sonoma State Enterprises operates retail, dining, and general service functions including Bookstore, Ameci's Pizza and Pasta, Charlie Brown's Café, The Commons, The Pub, Toast, the University Club, Zinfandel Dining Hall, Green Music Center hospitality, and Zinfandel Marketplace. Enterprises' net proceeds, after establishment of appropriate reserves, are provided to support the University. The corporation is governed by a policy-making board of directors comprised of faculty, staff, students, administrators, and community members.

## Sonoma State University Academic Foundation

## CHAIRMAN OF THE BOARD

Ruben Armiñana
PRESIDENT
Patricia McNeill
VICE PRESIDENT AND CHIEF OPERATING OFFICER
Laurence Furukawa-Schlereth

## CHIEF FINANCIAL OFFICER/SECRETARY

Letitia Coate
The Sonoma State University Academic Foundation, Inc., is a public service, not-for-profit corporation established in 1974 to promote the development programs of the University. The foundation's principal mission is to receive and administer gifts, endowments, scholarships, and planned giving that enhance and promote Sonoma State University's educational mission. The activities of the foundation are directed by a board of community, student, faculty, and administrative representatives. The foundation is a CSU auxiliary organization, as defined in Title 5 of the California Code of Regulations.

## University Affairs Division

Stevenson Hall 1062
(707) 664-2158

VICE PRESIDENT
Dan Condron
The University Affairs Division coordinates the public, media, and government relations functions for the University. It provides communications, marketing, web, creative, and event services to the campus community. One of its primary functions is to communicate information about the University to students, faculty, staff, alumni, and the community. The office responds to media inquiries and actively works to place stories about the University in local, regional, and national media. It also oversees the University's online news site, News Center, an Experts Guide used as a resource for media and other groups, the University magazine Insights, the Schedule of Classes, and the University catalog, as well as various special communications projects for academic and administrative areas. In conjunction with Information Technology, staff members develop content and design for the SSU website. Additional responsibilities include maintaining relations with government leaders and public agencies, maintaining several websites for the campus, and working closely with the Development Office and the Alumni Association in support of University advancement and community outreach efforts.

## THE CALIFORNIA STATE UNIVERSITY

The individual California State Colleges were brought together as a system by the Donahoe Higher Education Act of 1960. In 1972 the system became the California State University and Colleges, and in 1982 the system became the California State University. Today the campuses of the CSU include comprehensive and polytechnic universities and, since July 1995, the California Maritime Academy, a specialized campus.

The oldest campus—San José State University—was founded in 1857 and became the first institution of public higher education in California. The newest—CSU Channel Islands—opened in fall 2002, with freshmen arriving in fall 2003.

Responsibility for the California State University is vested in the Board of Trustees, whose members are appointed by the Governor. The Trustees appoint the Chancellor, who is the chief executive officer of the system, and the Presidents, who are the chief executive officers of the respective campuses.

The Trustees, the Chancellor, and the Presidents develop systemwide policy, with implementation at the campus level taking place through broadly based consultative procedures. The Academic Senate of the California State University, made up of elected representatives of the faculty from each campus, recommends academic policy to the Board of Trustees through the Chancellor.

Academic excellence has been achieved by the California State University through a distinguished faculty whose primary responsibility is superior teaching. While each campus in the system has its own unique geographic and curricular character, all campuses, as multipurpose institutions, offer undergraduate and graduate instruction for professional and occupational goals as well as broad liberal education. All the campuses require for graduation a basic program of "General Education Requirements" regardless of the type of bachelor's degree or major field selected by the student.

The CSU offers high-quality, affordable bachelor's and master's level degree programs. Many of these programs are offered so that students can complete all upper division and graduate requirements by part-time, late afternoon, and evening study. In addition, a variety of teaching and school service credential programs are available. A limited number of doctoral degrees are offered jointly with the University of California and with private institutions in California. In 2005, the CSU was authorized to independently offer educational doctorate (Ed.D.) programs.

Enrollment in fall 2009 totaled 433,000 students, who were taught by more than 21,000 faculty. The system awards about half of the bachelor's degrees and a third of the master's degrees granted in California. More than 2.5 million students have graduated from CSU campuses since 1961.

A recent economic report found that the CSU supports more than 150,000 jobs statewide, annually. The engine driving job creation is more than $\$ 17$ billion in economic activity that directly results from CSU-related spending that generates $\$ 5.43$ for every dollar the state invests. For more information, please see www.calstate.edu/ impact.

## TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY

## EX OFFICIO TRUSTEES

The Honorable Edmund G. Brown, Jr.
Governor of California
The Honorable Gavin Newsom
Lieutenant Governor of California
The Honorable John Pérez
Speaker of the Assembly
The Honorable Tom Torlakson
State Superintendent of Public Instruction
Dr. Charles B. Reed
Chancellor of The California State University

OFFICERS OF THE TRUSTEES
The Honorable Edmund G. Brown, Jr. Bob Linscheid
Herbert L. Carter
Christine Helwick
Dr. Benjamin F. Quillian

State Capitol
Sacramento 95814
State Capitol
Sacramento 95814
State Capitol
Sacramento 95814
721 Capitol Mall
Sacramento 95814
401 Golden Shore
Long Beach
90802-4210

President
Vice Chair
Chair
Secretary
Treasurer

## APPOINTED TRUSTEES

Appointments are for a term of eight years, except student, alumni, and faculty trustees, whose terms are for two years. Terms expire in the year in parentheses. Names are listed alphabetically.

Roberta Achtenberg (2015)
Nicole Anderson (2011)
Jeffrey Bleich (2010)
Herbert L. Carter (2011)
Carol Chandler (2012)
Steven Dixon (2012)
Debra S. Farar (2014)
Kenneth Fong (2013)
Margaret Fortune (2016)
George G. Gowgani (2018)
Melina Guzman (2012)
William Hauck (2017)
Raymond W. Holdsworth, Jr. (2011)
Hsing Kung (2018)
Linda A. Lang (2017)
Bob Linscheid (2012)
Peter Mehas (2015)
Henry Mendoza (2016)
Lou Monville (2014)
Russell Statham (2010)
Glen Toney (2013)

Correspondence with Trustees should be sent to:
c/o Trustees Secretariat
The California State University
401 Golden Shore
Long Beach, California 90802-4210

## OFFICE OF THE CHANCELLOR

The California State University
401 Golden Shore
Long Beach, California 90802-4210
(562) 951-4000

| Dr. Charles B. Reed | Chancellor - CSU System |
| :--- | :--- |
| Dr. Ephraim P. Smith | Executive Vice Chancellor and <br> Chief Academic Officer |
| Dr. Benjamin F. Quillian | Executive Vice Chancellor and <br> Chief Financial Officer |
| Ms. Gail Brooks | Vice Chancellor, Human Resources <br> Vice Chancellor, University Relations <br> Mr. Garrett Ashley |
| and Advancement |  |
| Ms. Christine Helwick | General Counsel |
| Mr. Larry Mandel | University Auditor |

## CAMPUSES - THE CALIFORNIA STATE UNIVERSITY

California State University, Bakersfield
9001 Stockdale Highway
Bakersfield, CA 93311-1099
Dr. Horace Mitchell, President
(661) 654-2782
www.csub.edu
California State University, Channel Islands
One University Drive
Camarillo, CA 93012
Dr. Richard Rush, President
(805) 437-8400
www.csuci.edu
California State University, Chico
400 West First Street
Chico, CA 95929-0150
Dr. Paul J. Zingg, President
(530) 898-4636
www.csuchico.edu
California State University,
Dominguez Hills
1000 East Victoria Street
Carson, CA 90747-0005
Dr. Mildred Garcia, President
(310) 243-3300
www.csudh.edu

California State University, East Bay
25800 Carlos Bee Boulevard
Hayward, CA 94542
Dr. Mohammad Qayoumi, President
(510) 885-3000
www.csueastbay.edu
California State University, Fresno
5241 North Maple Avenue
Fresno, CA 93740
Dr. John D. Welty, President
(559) 278-4240
www.csufresno.edu
California State University, Fullerton
800 N. State College Boulevard
Fullerton, CA 92834-9480
Dr. Milton A. Gordon, President
(714) 278-2011
www.fullerton.edu
Humboldt State University
One Harpst Street
Arcata, CA 95521-8299
Dr. Rollin C. Richmond, President
(707) 826-3011
www.humboldt.edu
California State University, Long Beach
1250 Bellflower Boulevard
Long Beach, CA 90840-0115
Dr. F. King Alexander, President
(562) 985-4111
www.csulb.edu
California State University, Los Angeles
5151 State University Drive
Los Angeles, CA 90032
Dr. James M. Rosser, President
(323) 343-3000
www.calstatela.edu
California Maritime Academy
200 Maritime Academy Drive
Vallejo, CA 94590
Dr. William B. Eisenhardt, President
(707) 654-1000
www.csum.edu
California State University, Monterey Bay
100 Campus Center
Seaside, CA 93955-8001
Dr. Dianne Harrison, President
(831) 582-3330
www.csumb.edu

California State University, Northridge
18111 Nordhoff Street
Northridge, CA 91330
Dr. Jolene Koester, President
(818) 677-1200
www.csun.edu
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3801 W. Temple Avenue
Pomona, CA 91768
Dr. J. Michael Ortiz, President
(909) 869-2290
www.csupomona.edu
California State University, Sacramento
6000 J Street
Sacramento, CA 95819
Dr. Alexander Gonzalez, President
(916) 278-6011
www.csus.edu
California State University, San Bernardino
5500 University Parkway
San Bernardino, CA 92407-2397
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(909) 880-5000
www.csusb.edu
San Diego State University
5500 Campanile Drive
San Diego, CA 92182
Dr. Stephen L. Weber, President
(619) 594-5000
www.sdsu.edu
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132
Dr. Robert A. Corrigan, President
(415) 338-1111
www.sfsu.edu
San José State University
One Washington Square
San Jose, CA 95192-0001
Mr. Don W. Kassing, Interim President
(408) 924-1000
www.sjsu.edu
California Polytechnic State University, San Luis Obispo
One Grand Avenue
San Luis Obispo, CA 93407
Dr. Jeffrey Armstrong, President
(805) 756-1111
www.calpoly.edu

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333 S. Twin Oaks Valley Road
San Marcos, CA 92096-0001
Dr. Karen S. Haynes, President
(760) 750-4000
www.csusm.edu
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1801 East Cotati Avenue
Rohnert Park, CA 94928-3609
Dr. Ruben Armiñana, President
(707) 664-2880
www.sonoma.edu
California State University, Stanislaus
One University Circle
Turlock, CA 95382-0299
Dr. Hamid Shirvani, President
(209) 667-3122
www.csustan.edu

## MAP OF CSU CAMPUS LOCATIONS



## ADMINISTRATION AND FACULTY

## ADMINISTRATION

## President

Ruben Armiñana , Ph.D.

## Interim Provost, Chief Academic Officer and Vice President for Academic Affairs

Saeid Rahimi, Ph.D.
INTERIM VICE PROVOST FOR ACADEMIC AFFAIRS
Melinda Barnard, Ph.D.
DEAN, SCHOOL OF ARTS AND HUMANITIES
William Babula, Ph.D.
DEAN, SCHOOL OF BUSINESS AND ECONOMICS
William Silver, Ph.D.
INTERIM DEAN, SCHOOL OF EDUCATION
Carlos Ayala, Ph.D.
DEAN, SCHOOL OF EXTENDED EDUCATION
Mark Merickel, Ph. D.
INTERIM DEAN, SCHOOL OF SCIENCE AND TECHNOLOGY Lynn Stauffer, Ph.D.

DEAN, SCHOOL OF SOCIAL SCIENCES
Elaine Leeder, Ph.D.
DEAN, UNIVERSITY LIBRARY
Barbara Butler, M.L.I.S.
DIRECTOR OF INSTITUTIONAL RESEARCH
Marilyn Sargent, Ph.D.
ASSOCIATE VICE PROVOST FOR ACADEMIC PROGRAMS AND GRADUATE STUDIES
Elaine Sundberg, M.A.
DIRECTOR OF ACADEMIC RESOURCES
Lori Heffernon, B.A.
DIRECTOR, OFFICE OF RESEARCH AND SPONSORED
PROGRAMS
Julia Arno, J.D.
DIRECTOR OF FACULTY PERSONNEL
Sally Sacchetto, B.S.
DIRECTOR OF ACADEMIC SCHEDULING
Vanessa Franklin
Vice President for Administration and Finance
Laurence Furukawa-Schlereth, M.B.A., M.S.F.S.
ASSOCIATE VICE PRESIDENT FOR ADMINISTRATION AND FINANCE
Letitia Coate, B.A., C.P.A.
SENIOR DIRECTOR FOR FACILITIES MANAGEMENT
Christopher Dinno, B.A.

SENIOR DIRECTOR FOR ATHLETICS
William Fusco, M.A.
ACTING UNIVERSITY TREASURER Ian Hannah, M.B.A.

INTERIM CHIEF OF POLICE AND SENIOR DIRECTOR FOR POLICE AND PARKING SERVICES
Sally Miller, B.S.
SENIOR DIRECTOR FOR RISK MANAGEMENT
Richard Ludmerer, J.D.
SENIOR DIRECTOR FOR ENTREPRENEURIAL ACTIVITIES Neil Markley, M.B.A.

EXECUTIVE DIRECTOR OF THE SONOMA STUDENT UNION Peter Neville, M.S.

SENIOR DIRECTOR FOR UNIVERSITY BUSINESS SERVICES
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## Acting Vice President for Student Affairs

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## FACULTY

Dates listed in parentheses indicate year of tenure-track appointment to Sonoma State University.
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[^0]:    * Students must place into the Chemistry 125 AB series by receiving an appropriate score on the chemistry placement exam. Quantitative Analysis (CHEM 255) is not required for students who have completed CHEM 125A \& B. Students should replace these four units by completing the challenge by exam form upon completion of the series.

[^1]:    * Courses that meet general education requirements.

[^2]:    *3 units of area E will be satisfied upon completion of the nursing major to meet the 51-unit GE requirement.

