Whittier College Poet Commons

Spring 2001

## Whittier College Course Catalog 2002-2005 (Volume 86 • Spring 2001)

Whittier College

## Whittier College

## 2002 - 2005

## Accreditation

Whittier College is accredited by the Western Association of Schools and Colleges. The Department of Education of the State of California has granted the College the right to recommend candidates for teaching credentials. The College's programs are on the approved list of the American Chemical Society, the Council on Social Work Education, and the American Association of University Women.

## Notice of Nondiscrimination

Whittier College admits students of any race, color, national or ethnic origin to all the rights, privileges, and activities generally accorded or made available to students at the school. It does not discriminate on the basis of race, color, marital status, sexual orientation, national or ethnic origin in administration of its educational policies, admissions policies, scholarship and loan programs, or athletic and other school-administered programs. Whittier College does not discriminate on the basis of disability in admission or access to its programs.

Fees, tuition, programs, courses, course content, instructors, and regulations are subject to change without notice.

## Table of Contents

OVERVIEW ..... Inside Front Cover
Academic Calendar ..... 4
INTRODUCING WHITTIER COLLEGE ..... 6
President's Message ..... 6
Values ..... 6
Traditions ..... 7
Mission ..... 7
Undergraduate Admission ..... 8
Credential and Graduate Admission ..... 10
Student Financing ..... 12
COLLEGE LIFE ..... 19
The Faculty ..... 19
The Academic Advising System ..... 19
Endowed Professorships ..... 20
Recognition of Academic Achievement ..... 21
Student Life ..... 22
Student Rights \& Responsibilities ..... 24
THE CURRICULUM ..... 29
Degrees ..... 29
The Liberal Education Program ..... 29
Whittier Scholars Program ..... 30
Writing Program ..... 32
Academic Policies ..... 32
Requirements for Graduation ..... 36
Liberal Education Program Requirements ..... 36
Requirements for the Major ..... 37
Requirements for the Minor ..... 38
Requirements for Transfer Students ..... 38
Whittier Scholars Program Requirements ..... 38
Requirements for the Master of Arts in Education ..... 38
Academic Procedures ..... 39
Academic Support Programs and Services ..... 46
COURSES OF STUDY ..... 50
Academic Divisions ..... 50
Course Numbering ..... 51
Programs of Study ..... 51
GRADUATE EDUCATION ..... 192
WHITTIER LAW SCHOOL ..... 193
EXPENSES ..... 195
COLLEGE ADMINISTRATION ..... 196
BOARD OF TRUSTEES ..... 198
FACULTY ..... 201
INDEX ..... 208

## Academic Calendar 2001-2002

FALL SEMESTER 2001
Orientation September 2-5
Fall Semester ..... September 6-December 14
Fall Semester classes begin ..... September 6
Mid-Semester Break ..... October 19
Thanksgiving Break .November 22-23
Fall Semester classes end ..... December 7
Reading Day ..... December 10
Finals ..... December 11-14
JANUARY INTERIM 2002
January Interim ..... January 7-February 1
Martin Luther King Holiday ..... January 21
SPRING SEMESTER 2002
Spring Semester .February 7-May 20
Spring Semester classes begin ..... February 7
Spring Break ..... March 23-31
Spring Semester classes end ..... May 13
Reading Day ..... May 14
Finals ..... May 15-20
COMMENCEMENT 2002 ..... May 24
SUMMER TERM 2002
Summer Term ..... May 28-August 23
Summer Session I ..... May 28-June 21
Summer Session II June 24-August 2
Summer Session III ..... August 5-23

## Introducing Whittier College

## President's Message

The liberal arts in the digital age: This phrase blends elements of two apparently disparate worlds-the traditional world of the liberal arts and sciences, its love of books and words, and its reliance on classical ways of thinking; and the digital world of technology, its fascination with the new, its insistence on open access, and its increasing dependence on high speed information transmission and processing. As surprising as this phrase might initially sound-the liberal arts in the digital age-it captures well the energy and excitement of the educational environment of Whittier College, where we continually ask: What about the liberal arts is eternal? How do tradition and change come together? What traditional modes need to evolve or be transformed in order to adapt to our modern era? How do new forms of technology enhance the learning process? What can best prepare our students for a time of increasingly rapid change? What values are timeless? How can we be effective citizens and experience fulfilled lives in an age of increasing flux?

Students, faculty, and staff at Whittier repeatedly address these fundamental educational questions-and so much more-through the curriculum and programs represented in this catalog. The creative spark that is the hallmark of Whittier's liberal arts approach is that all members of the College community share their varied experiences and their love of learning as they advance the life of the mind in what we have come to know as the digital era. At Whittier, we passionately believe that a liberal arts education provides the best preparation for work and life in our new age, creating habits of mind which represent the highest attributes of human life and development.

## Katherine Haley Will


#### Abstract

Values Located in the hills overlooking metropolitan Los Angeles and coastal southern California, Whittier College was founded in the city of Whittier by members of the Religious Society of Friends (Quakers) in 1887, and the College was chartered by the state of California in 1901. Although long independent of sectarian control, the College takes pride in its Quaker heritage, which is expressed in the friendly tone of the campus and in a concern for the individual and for his or her personal growth within the community. The College's heritage is also evidenced in its long-standing commitment to a diverse student body and faculty, and the tolerance of human differences which it thereby seeks to engender; in the integration of humanistic and pre-professional education, reflecting Whittier's desire that its members be socially responsible citizens; and in the continuing effort within the College community to settle issues amicably and to arrive at major decisions by achieving consensus rather than by majority vote.


## Traditions

A college with a long and distinguished past has traditions that connect each new student with important aspects of community life. These traditions reflect both solemn rituals and the lighter side of college life. Some of Whittier's traditions can be dated to a century ago when the College was founded, and others have emerged as popular events repeated year after year.

The most important Whittier College traditions are those that mark both the initiation of new students into the College and, four years later, their successful completion of the course of study. The President's Convocation, held on the first evening that new students arrive, celebrates the introduction of students into the College community. This impressive ceremony begins with students processing through a corridor of faculty in full academic regalia and concludes with the lighting of candles to symbolize sharing the light of knowledge. Commencement exercises celebrate our students' graduation and feature faculty, graduating students, and distinguished guests marching into Harris Amphitheater to the strains of "Pomp and Circumstance."

Between these two important rituals are a host of traditions that help give meaning to the Whittier College experience. These range from the never-ending painting of "The Rock," to Homecoming, Spring Sing, Friday the Squirrel, and the "battle for the shoes" against Occidental College. Celebrations of the diverse cultures represented buy students and faculty include the annual Tardeada and Asian Festival. These events reflect the traditions that flow from our rich heritage and from our values.

## Mission

Faculty and students at Whittier College share a love of learning and delight in the life of the mind. They join in understanding the value of the intellectual quest, the use of reason, and a respect for values. They seek knowledge of their own culture and the informed appreciation of other traditions, and they explore the interrelatedness of knowledge and the connections among disciplines. An extraordinary community emerges from teachers and students representing a variety of academic pursuits, individuals who have come together at Whittier in the belief that study within the liberal arts forms the best foundation for rewarding endeavor throughout a lifetime.

Whittier College, an independent, nationally recognized liberal arts institution, provides an important option in American higher education: a distinctive, high quality academic program based upon the liberal arts that also integrates selected professional and preprofessional programs into the core of the College through innovative interdisciplinary curricula.

The College's primary mission is to educate students in a small college atmosphere where they can learn, acquire skills, and form attitudes and values appropriate for leading and serving in a global society. It seeks to do this in the contest of a diverse, friendly, and long coring community. Committed to excellence in undergraduate education, Whittier also offers selected advanced degrees, and the Whittier Law School is an important part of the total institution.

## Undergraduate Admission

Admission to Whittier College is competitive and students must demonstrate strong academic ability and preparation in order to be a successful candidate for admission. Candidates must show that they have the ability to prosper and be engaged learners within the Whittier academic community; scholastic ability, as demonstrated in previous coursework, is of prime importance. The Admission Committee practices careful, selective admission, but Whittier's concern for each student as a unique person is manifested in its admission policies and procedures. The special qualities, motivations, talents, background and interests of each applicant are assessed along with the more common measurements of academic ability. Further consideration is given to the applicant's commitments, leadership and initiative outside the classroom, as evidenced in school and community activities. Finally, the College is interested in the personal qualities that mark students as potential contributors to our vibrant learning community. Whittier College strives for a student body diverse in economic, social, ethnic, religious and geographic makeup, as well as in academic interests and talents.

All applicants to Whittier College receive individual attention and consideration throughout the admission process. Prospective first year students can apply for entrance in the Fall semester; transfer students can apply for entrance in the Fall or Spring semesters. Detailed information concerning application requirements and deadlines can be found in the Application for Admission or by contacting the Office of Admission. The College web site (www.whittier.edu) is another excellent source of College information.

## First Year Student Admission

Whittier College strongly recommends that first year applicants enter with at least four years of English, three or four years of mathematics, two or three years of one foreign language, two or three years of social studies, and two or three years of laboratory science. Honors, Advanced Placement, and International Baccalaureate courses add further strength to an applicant's record and are considered favorably in the admission deliberations.

Credentials Required. Candidates for first year admission normally must provide the completed Application for Admission, a personal essay, high school transcripts, results of the Scholastic Aptitude Test (SAT1) or American College Test (ACT), and two academic recommendations. Personal interviews are highly recommended but not required. Verification of the completion of the high school diploma must also occur prior to matriculation. The College also accepts the Common Application as well as electronic applications for admission consideration.

Non Binding Early Action. First year applicants who view Whittier College as one of their top choices can apply under the Non Binding Early Action Program. Under this program, candidates are free to apply to other colleges and universities, yet do not have to commit to Whittier until May 1. Applicants for Early Action must submit all required credentials by December 1. Candidates are notified of their admission decisions by the end of December and have the opportunity to receive an early assessment of merit scholarship and financial aid eligibility in January.

Admission Decision Notification. Whittier College reviews all other first year applicants as they complete their credentials, with priority given to those students who meet the priority deadline of February 1. Admission decisions, along with scholarship and financial aid eligibility notifications, are mailed beginning in March. Students who wish to accept the offer of admission must provide a non-refundable enrollment deposit
by the National Candidates' Reply Date of May 1 to secure their place in the entering class. Enrollment deposits will be accepted after May 1 based on space availability in the first year class.

## Transfer Student Admission

Whittier welcomes students who wish to transfer from fully accredited community colleges and four-year institutions. Applicants in good standing who meet the admission standards are admitted to the appropriate class standing at Whittier College. Candidates may apply for entrance into the Fall or Spring semesters.

Credentials Required. Candidates for transfer admission must provide the completed Application for Admission, a personal essay, high school transcripts, proof of attainment of the high school diploma (completion of the G.E.D. may be substituted if 30 transferable units have been earned), and two academic recommendations. The results of the Scholastic Aptitude Test (SAT1) or American College Test (ACT) will be required if the candidate has not completed at least 30 transferable academic units. Personal interviews are highly recommended but not required.

Regular Decision. Whittier College reviews all transfer candidates as they complete their credentials with priority given to those students completing the process by the priority deadlines stated on the Application for Admission. Notification of the admission decision is sent on a rolling basis upon receipt of all credentials. Students who wish to accept the offer of admission must provide a non-refundable enrollment deposit to secure their place in the entering class.

Transferability of Course Work. Whittier College WILL determine the number, type, and applicability of transfer credits to be accepted toward a student's degree. Whittier College will evaluate coursework taken at other regionally accredited institutions on an individual basis upon receipt of the official college transcript. A minimum of a C-must be attained in a course to be applied toward the Whittier College degree. Generally, remedial, professional, technical, vocational, work experience, co-op, and terminal coursework will not be accepted for credit. A maximum of 70 semester credits from a community college and a maximum of 90 credits from a four-year institution can be transferred.

## International Student Admission

International students are a vital part of Whittier College's community of learners and scholars. Applicants with strong academic credentials and demonstrated English proficiency are considered for both first year and transfer admission. In addition to the documents listed previously, international applicants are required to submit a Certificate of Finances and the results of the TOEFL, if English is not the first language (a minimum of 550 paper score or 213 computer score is strongly recommended). All transcripts and other documentation must be translated. Those who wish to transfer credit from a post-secondary institution outside the United States are required to have their coursework evaluated by an external credit evaluation agency. International candidates are urged to complete the process early to allow sufficient time to satisfy visa and immigration requirements. Entrance is normally granted for the Fall semester only.

## Admission to Non-Degree Standing

Non-degree standing is granted to a limited number of students who are not currently interested in seeking a degree at Whittier. To apply for non-degree standing, students must submit a transcript from the last institution attended, proof of attainment of the high school diploma, and the appropriate application form. Additional credentials may be requested if needed to make a determination. Non-degree standing is based on the academic credentials of the candidate, his or her intent in continuing the course of study at Whittier, and the availability of space at the College. Students must reapply to continue non-degree standing each semester. A non-degree student must satisfy the English proficiency requirement for degree candidates at the College. A student may transfer no more than 30 credits of courses taken at Whittier College under non-degree status toward a Whittier College Bachelor of Arts and no more than 12 non-degree credits toward the Master's degree at the College. To request a non-degree application or more information, contact the Office of The Registrar.

## Credential and Graduate Admission

Admission to either the credential or the Master of Arts program is selective; meeting the minimum requirements does not guarantee admission to either program.

## Credential Program

Graduate students must complete an application for admission to the Teacher Preparation Program according to specified deadlines. Only those students accepted to the program may enroll in the four core courses.

Applicants seeking admission to the Administrative Services Credential programs (Preliminary and Professional) must verify previous teaching or administrative experience as noted on the application, in addition to the requirements listed below:

Graduate candidates applying to the credential programs must complete and submit the following to the Department of Education and Child Development:

1. The application for admission includes such items as a statement of purpose, at least two professional references, and documentation of subject matter preparation.
2. Transcripts documenting the following:

- A Bachelor of Arts Degree or Bachelor of Science Degree from an accredited college or university
- Minimum 2.8 GPA in the last 60 graded units.

In addition to the above requirements, applicants who meet the qualifications will be contacted for an interview.

## Master of Arts in Education

Whittier College offers the Master of Arts in Education with a variety of concentrations. Candidates should check with the Department of Education and Child Development for more specific information regarding areas of concentration. Candidates must complete 34 units beyond the Bachelor of Arts (excluding student teaching). At least 12 of the 34 units must be in an area of concentration, and all 34 units must be part of an approved Educational Design for the Master of Arts in Education. During the last two semesters of study, students take ED 502 (Research Techniques) and ED 504 (Thesis 1).

## Master's Degree Candidacy

Applicants seeking the Master of Arts in Education must be admitted to Master's Degree Candidacy. Students should apply as early as possible and no later than one semester prior to the intended entry date. To apply for Master's Degree Candidacy, applicants must submit the following:

1. The application for graduate admission, which includes an essay on professional and educational goals and two professional references. Students who have previously been admitted to a credential program must complete the application for advancement to master's candidacy.
2. Transcripts of all college work documenting a Bachelor of Arts Degree or a Bachelor of Science Degree from an accredited college or university.
3. Evidence of completion of the last 50 upper division/graduate semester units with a grade point average of 3.0 or higher.
4. An Educational Design proposal that has been developed by the candidate and the Department of Education and Child Development Chair.
5. A writing sample to demonstrate the ability to communicate effectively in writing. Candidates who meet the qualifications will be contacted for an interview.

Admission of International Students to Credential and Graduate Program
International graduate students who wish to apply for the credential program and/or the Master of Arts Degree program must do the following:

1 Submit a completed application for graduate admission.
2. Submit transcripts verifying the completion of a baccalaureate degree. All students whose baccalaureate work was completed outside the United States or Canada at an institution where a language other than English was the dominant language of instruction must submit transcripts that have been translated and analyzed by the International Education Research Foundation, Inc. or another authorized agency before they can be accepted to the teacher credential or master's degree program. (Students already in the U.S. may be permitted to enroll in a maximum of two courses while they await transcript analysis.)
All students whose baccalaureate work was completed at an institution where a language other than English was the dominant language of instruction must submit acceptable TOEFL scores.

## Student Financing

Whittier College offers a full range of programs to help students pursue their education which include: merit scholarships which recognize outstanding academic achievement, leadership, service, or talent; need-based grants, loans, and work programs for families who need assistance in meeting college costs; and alternative financing plans.

## Scholarships

Academic Scholarships. Each year the faculty honors a select group of entering first year students with prestigious awards in recognition of academic achievement, leadership, service, or special talent. The John Greenleaf Whittier Scholarships range from $\$ 2,000$ a year to full tuition; financial need is not a consideration in granting these awards. Winners are expected to participate in the leadership of the College community and will in turn benefit greatly from their special relationship with the faculty and their peers. These awards are renewable for up to four years of continuous study at Whittier

College if the student maintains the specified grade point average and remains in good standing with the College. Information concerning the application deadlines and procedures for these scholarship programs is contained in the Application for Admission.

Talent Scholarships. These awards are offered to entering first year students in the areas of art, music, and theatre arts. Winners are expected to enrich our community through the use and sharing of their talent but are not required to major in their talent field. Auditions and/or portfolio reviews are required by each talent scholarship department in the spring of the senior year in high school. These awards are also renewable for up to four years of continuous study at Whittier College as long as the student continues to participate in and contribute to his or her talent area, meets specified departmental criteria, and remains in good standing with the College.

Alumni Scholarships. These awards are offered to sons and daughters of Whittier alumni and are valued at $\$ 1,000$ per year for a maximum of four years. Qualified applicants may receive this award in addition to John Greenleaf Whittier Merit and/or Talent Scholarships.

## Need-Based Aid

Whittier College believes that a diverse student population adds to the richness of an education. This philosophy is evidenced in our support of scholarship and financing programs and, most importantly, in the College's commitment to providing funds for deserving students who otherwise could not attend.

Families participating in need-based aid programs agree to several commitments. Foremost among these is that parents and students must support the student's educational expenses to the extent that they can, and students must seek all available outside sources of funding. For California residents, this includes applying for the Cal Grant awards. Other sources of funds may include high school, church, community, or corporate-sponsored awards. The College will evaluate each family's ability to pay on the basis of a nationally accepted formula. In determining a family's need for assistance, all costs associated with a Whittier education are considered, including tuition, fees, books, supplies, room and board, and transportation.

Whittier College utilizes funds from the federal and state governments, donors, and our own resources to assist families in meeting costs that cannot be afforded or covered by other outside resources. These funds take the form of grants, loans, and work awards for undergraduate students. Graduate and credential students are considered for loan support only. Grants are gifts of money that do not have to be repaid. Loans are normally low-interest and do not accumulate interest or require repayment while the student is in school. Work awards allow students to earn funds to cover a portion of their expenses while gaining valuable work experience. The amount, source, and terms of each award offered an applicant are detailed in the student's award notification letter.

Eligibility: To be eligible for need-based aid, a student must be either a citizen or an eligible non-citizen of the United States. Applicants must be enrolled in a program of study at Whittier College that leads to a degree, approved certificate, or credential. Many programs require at least half-time enrollment while most require full-time enrollment. Applicants must not be in default on repayment of any student loan or owe refunds for federal grant funds. Students must continue to maintain satisfactory academic progress toward their degree as defined by College policy (available from the Office of Student Financing).

## How to Apply

The Office of Student Financing is committed to helping students identify and obtain the maximum need-based assistance available.

Entering Students. To be considered for funding, new students should follow the steps outlined below. For priority consideration, all three steps must be completed by February 15 of the preceding academic year.

Step 1: Apply for admission to Whittier College by completing the Application for Admission. Applicants need not wait for an admission decision before proceeding to Step 2.
Step 2: Complete the PROFILE Registration form and mail it with the appropriate fee to the College Scholarship Service (CSS) to register for the PROFILE. Be sure to list Whittier College (Code\# 4952) as a recipient of your information. Recommended registration dates are listed on your Application for Admission. Students may also register via the Internet (www.collegeboard.org) or by phone at (800)778-6888.
Step 3: Upon registration, you will receive a customized PROFILE application packet from CSS. Complete your customized packet and return it to CSS. You may file your packet as soon as your family can answer the financial questions with reasonable certainty. You do not have to wait until you have completed your tax forms or until January 1 to file the packet. Please refer to the Application for Admission for recommended dates to follow.
Step 4: Complete the Free Application for Federal Student Assistance (FAFSA) and mail it to the processor listed in the form. California residents should be sure to complete the statement of their California residency to apply for the Cal Grant. Whittier College must be listed in the school section.
Admitted students who meet the priority filing date will be mailed a detailed eligibility letter starting on April 1. Students who decide to accept the offer and attend Whittier College will be asked to provide documentation supporting the financial information reported on the PROFILE and FAFSA prior to disbursement of funds.

Continuing Students. Continuing students must apply for renewal of their assistance each year. To apply for renewal, students must file the Free Application for Federal Student Assistance (FAFSA) by March 2 of the preceding the academic year. Students also must submit a Renewal Request form with the Office of Student Financing. Applicants who are required to submit additional information and documentation will be notified. Renewal award letters are sent beginning in early July.

International Students. A limited amount of assistance is available to international students who otherwise would not be able to attend Whittier College. The awards are based on academic promise and financial need. Information on award amounts, availability, and application requirements is available from the Office of Admission.

## Alternative Financing Plans

Many families who have the resources to afford a Whittier education, as well as those who wish to augment their need-based assistance, may wish to spread the payment of college expenses over the course of the year or longer. The following financing programs may be used by families as they engage in planning for their children's education.

Short-Term Financing. Whittier College participates in a short-term payment plan through Academic Management Services (AMS). The AMS plan has been designed to
relieve the pressure of large "lump sum" payments by allowing families to spread the cost of education over ten months without borrowing money or paying interest charges. A small application fee is required per school year, and the plan automatically includes a Life Benefit Coverage. Payment under the plan normally begins on June 1 prior to the designated academic year. Application for participation can be made through mid-August with an applicable down payment required.

Long-Term Financing. These plans allow families to pay in smaller installments over a longer period of time, normally from five to twenty years. The loans are made through outside lending institutions or agencies in amounts ranging from $\$ 500$ per year to the cost of full expenses at Whittier. Participation in the plans is based on the borrowers' credit worthiness and ability to repay. Applications are normally made in June for the following academic year.

## Whittier College Endowed Awards and Annual

## Scholarships

Whittier College wishes to recognize the individuals, corporations and foundations who so generously support our students by having established the following endowed awards and annual scholarships. Without their continuous and generous support, many qualified students would not be able to take advantage of a Whittier education. Students are considered for these awards through the admission and financial aid application processes.

## Endowed Awards

Carl W. Ackerman Endowment
Edward and Rosa Ahlswede Endowment
Max B. and Ruth B. Alcorn Endowment
Harvey \& Madge Alverson Endowment
Madge Alverson Speech \& Drama Endowment
Ethel Townsend Ball Endowment
Mabel H. Bankhead Endowment
Granville B. and Helena Barrett Basye Endowment
Alva G. Bellah Endowment
Beulah Bartlett and Blyethe Monroe Endowment
Eva B. and Harry C. Billings Endowment
Ralph E. Bishop Endowment
W. O. and O. A. Brown Memorial Endowment

Hazel Caldwell Endowment
Class of 1934 Richard Spaulding Endowment
Class of 1961 Endowment
Class of 1957 Endowment
Class of 1968 Endowment
Genevieve Connick Memorial Endowment
Dr. C. J. Cook \& Evelyn Jessup Cook Endowment
Charles W. and Edris Cooper Endowment
Ruth Schaefer Corzine Endowment
Sylvia Marie Cosand Performing Arts Endowment
Ardys M. Cox Endowment

Lex B. Cox International Endowment<br>John H. Crow Endowment<br>James and Ida Darling Endowment<br>John F. \& Katherine N. Dean Education Endowment<br>Grace Elizabeth Dickerson Endowment<br>Floyd E. and F. Earl Durham Biology Endowment<br>Mr. \& Mrs. Thomas McGregor Erwin Endowment<br>Richard Ettinger Endowment<br>Herbert \& Elizabeth Francis Evans Endowment<br>Elizabeth Delia Felt \& Jessie Felt Savage Endowment<br>William \& Christine R. Ferguson Memorial Endowment<br>Roberta J. Forsberg Humanities Endowment<br>Jeffrey Thomas Foster Memorial Endowment<br>Judith A. Francis Endowment<br>Friends of Music Endowment<br>Robert L. Gifford Eagle Scout Endowment<br>Bernard and Esther Goerg Endowment<br>Stanley and Marjorie Gregory Endowment<br>Barbara Ondrasik Groce Endowment<br>Donald and Shirley Hall Endowment<br>Homer and Cora Halvorson Memorial Endowment<br>Edna M. Hampton Memorial Endowment<br>Arthur J. Hanson Endowment<br>Clair R. Hare Endowment<br>Ruth Haroldson Violin Endowment<br>William Randolph Hearst Foundation Endowment<br>Dorothy C. Heddens Memorial Endowment<br>Dee Louise Hochstetler Memorial Endowment<br>Howard L. and Alice B. Hockett Endowment<br>Lawrence B. \& Sylvia A. Hoefer Endowment<br>William H. Hornaday Endowment<br>Bailey Howard Endowment<br>Wendell Milo Hunt Memorial Endowment<br>James Irvine Foundation Endowment<br>James W. Jones Endowment<br>Laura Jones Endowment<br>Lynn R. and Katherine Balden Juday Endowment<br>Donna Lee Kendall Endowment<br>William H. and Irene Savage King Endowment<br>Paul D. Kirk Memorial Endowment<br>Paul A. and Frances K. Lewis Endowment<br>Jay R. and Elizabeth T. Livingston Endowment<br>Margaretha Lohmann Piano Endowment<br>Margaretha Lohmann Talent Endowment<br>James R. Long and John M. Gates Endowment<br>Albert Madden Endowment<br>Charles K. Marlatt Music Endowment<br>George H. Mayr/Martin Ortiz Endowment

C. W. McMurtry Memorial Endowment<br>Trula and Laurel Meyer Endowment Hilda Mary Millbank-Gobar Endowment Milhous-Marshburn Endowment<br>Mary McGraw Miller Music Endowment John and Elsie Murfett Endowment Delphi Murphy Memorial Endowment<br>Wallace "Chief" Newman Endowment<br>W. Roy and Alice Newsom Endowment<br>John Hill Nichols Endowment<br>Martin Ortiz Endowment<br>Lee \& Erika Owens Endowment<br>Bruce Patton Memorial Endowment<br>Dr. Gerald Patton Memorial Endowment<br>William Penn Endowment<br>Perry Memorial Endowment<br>Richard \& Sissel Pomboy Endowment<br>Margaret Pressey Endowment<br>Quaker City Federal Savings and Loan Endowment<br>Audrey Richardson Memorial Violin Endowment<br>Henry C. Rosene Endowment<br>Paul K. and Nina Schroeder Memorial Endowment<br>Marie Quinzel Sewell Endowment<br>Margaret Merrill Shannon Endowment<br>Vincent Sinatra Memorial Endowment<br>Elden and Barbara Smith Endowment<br>Nora \& Woody Smith Endowment<br>Walter H. and Helen J. Spicer Endowment<br>John Stauffer Science Fellows Endowment<br>John Stauffer Trust Science Endowment<br>Alfred J. Stevens Memorial Endowment<br>Martin A. and Mildred L. Stewart Endowment<br>Emma Strain Endowment<br>Roy O. Lisle M. Strain Endowment<br>Amos and Matilda Hadley Stuart Endowment<br>Charles E. Sydnor-William V. Marshburn Endowment<br>Lorraine Thompson Endowment<br>Raymond C. Thompson Endowment<br>Helen Ulitin Endowment<br>Frances E. Van Riper Endowment<br>May Vertrees Endowment<br>George E. and Maye R. Wanberg Endowment<br>Bonnie Bell Wardman Endowment<br>David E. Wicker Endowment<br>D. L. and M. A. Williams Endowment<br>Ed J. \& Ruth Wudell Endowment<br>Mary E. Wyatt Memorial Endowment<br>YMCA Daniel Luther Endowment

Annual Scholarships<br>Ahmanson Foundation Scholarship<br>Alianza de los Amigos Scholarship<br>Avery Dennison Careers in Education Scholarship<br>Bank of America Scholar<br>Chevron Merit Award<br>Christian Leadership Merit Scholarship<br>Coca Cola First Generation Scholarship<br>Nola Lee Cole Trust<br>James S. Copley Foundation Scholarship<br>Beckman Coulter Science Scholarship<br>Farmers Insurance Group Scholarship<br>Si and Bob Fluor Scholarship Program<br>Forest Lawn Scholarship<br>Friends of Whittier Scholarship<br>Gillette Company/Stationery Products Group Scholarship<br>GTE California Independent Colleges Scholarship<br>John Randolph and Dora Haynes Foundation Scholarship<br>Independent Colleges of Southern California Scholarship<br>Litton Industries Scholarship<br>Los Angeles Philanthropic Foundation Scholarship<br>George H. Mayr Foundation Scholarship<br>Mebane Scholar in Education<br>B.C. McCabe Foundation Scholarhsip<br>Milken Family Scholar<br>Nordstrom Scholarship<br>Norma L. Murdy Scholarship<br>Norris Foundation Scholar<br>Richard M. Nixon Scholarship (Whittier Republican Women)<br>Ralph M. Parsons Foundation Scholarship<br>Smith Trust Fund<br>TELACU Scholarship<br>Transamerica Occidental Life Insurance Company Scholarship<br>Union Bank of California Scholar<br>Union Pacific Scholarship<br>UNOVA Foundation Scholarship<br>UPS Scholar<br>John F. Warwar Scholarship<br>Washington Mutual Scholarship<br>Whittier College Veteran's Scholar<br>Whittier College Women's Auxiliary Scholarship<br>Whittier Rotary Club Scholarship<br>Tien Zee Scholarship

## Student Rights and Responsibilities Regarding Financial Aid

Whittier College subscribes to the professional standards of the National Association of Student Financial Aid Administrators and urges students to know their rights and responsibilities.

## Student Rights

Whittier College students have the right to know the following: which financial aid programs are available; application deadlines for each of the programs available; how financial aid will be distributed, how distribution decisions are made, and the bases for these decisions; how financial need was determined, including how costs for tuition and fees, room and board, travel, books and supplies, personal and miscellaneous expenses were considered in the budget; how much of the financial need has been met, as determined by the Office of Student Financing; what resources (such as parental contribution, other financial aid, and personal assets) were considered in the calculation of the need; what portion of the financial aid received must be repaid and what portion is grant aid (if a loan is awarded, students have the right to know the interest rate, the total amount to be repaid, repayment procedures, the date when repayment begins and the length of the repayment period); how the school determines whether students are making satisfactory academic progress and what happens if they are not; and an explanation of each program in the student aid award package.

## Student Responsibilities

Whittier College students must complete all application forms accurately and submit them on time to the correct location; provide correct information (in most cases, misreporting information on financial aid applications is a violation of the law and may be considered a criminal offense); return all additional documentation, verification, corrections, and/or new information requested by either the Office of Student Financing or the agencies to which applications were submitted (students are responsible for reading and understanding all forms they are asked to sign and for keeping copies of each); accept responsibility for all signed agreements; perform the work agreed upon in a work-study award; be aware of and comply with the deadlines for aid application or reapplication; know and comply with Whittier College's refund procedures; maintain satisfactory academic progress according to the policies and standards of the College; notify the Office of Student Financing in writing of any change in the circumstances reported on the student financing application upon which aid is based or if any additional awards from an outside source will be received; and notify the lender of changes in name, permanent mailing address, and school status, if a loan was received as part of the award package.

## College Life

Whittier College students join with faculty and staff to form a community of learners. In this special community devoted to learning, the faculty play the leading role in college life. The system of Resident Faculty Masters is symbolic of that role.

The purpose of this section is to describe residential living, extracurricular opportunities, student rights and responsibilities, and administrative support for students. The section starts with the faculty, the most important and influential people students encounter in the Whittier College community.

## The Faculty

The Whittier College faculty exhibits a rare quality in American higher education: a commitment to balancing the teaching of undergraduate students with scholarly accomplishment. Our finest teachers are also nationally recognized scholars who have won awards for their books, research and other creative activities. In recent years, faculty have published numerous books on topics ranging from the Chinese revolution to European currency, have exhibited in juried art shows and directed plays in Hollywood.

An accomplished faculty wins awards. The Whittier College faculty has a strong history of receiving National Science Foundation fellowships, Fulbright fellowships and lectureships, Graves Awards, NASA summer fellowships, Haynes Foundation awards, and grants from the National Endowment for the Humanities. Accessible to students not just in the classroom or during office hours, Whittier faculty often open their homes to students for honorary society and departmental meetings, or sometimes just good conversation.

## The Academic Advising System

Whittier College believes that proper teaching of undergraduates includes close advising. From the moment new students step on campus, faculty advisors are ready to assist in charting their curricular path. Whittier College and several faculty have been recognized as the best advisors in the West by the National Academic Advising Association.

This careful advising ensures that our students graduate in four years-not five or six, as in larger institutions. It also results in our students' admission to the country's finest graduate programs in medicine, law, and the arts and sciences, in addition to winning prestigious awards ranging from NCAA Student Athlete awards to the prestigious Rhodes Scholarship.

The primary purpose of the advising and mentoring programs is to support students in the development of an academic career complementary to individual life goals. The College provides the students with all the necessary information and resources required in making meaningful educational plans. At Whittier, students obtain academic and career advising from faculty and staff, who are pro-active in promoting excitement about the learning process. As students develop a habit of life long learning and continuing inquiry, they should ideally assume active roles in educational planning. They are expected to seek satisfactory progress in their academic careers. In keeping with the small college collegial relationships between faculty and students, faculty mentors serve as role models and provide primary advising for students.

In recent decades, emphasis on advising and retention have placed particular attention on first year students, recognizing that the first year of transition and adaptation to college is an especially difficult one for these students. As part of Whittier's First Year Mentor Program, each new student is assigned to a full time faculty member who provides academic support and direction through the first year. It is the primary role of the first year mentor to introduce the new student to Whittier College, and to further an understanding of its overall mission and the importance of a liberal education. Mentors also help students become aware of the many resources available to them on campus.

## Endowed Professorships

Endowed professorships lend distinction and strength to the Whittier College faculty.
The Roy E. and Marie G. Campbell Distinguished Chair in Biology
Dr. Roy E. Campbell, director of the U.S. Entomological Laboratory, provided for the Endowment of a chair in Biology from the proceeds of his estate. The Campbell Chair supports a distinguished faculty member in that department, and assists the College in enriching teaching and research activities.

## The C. Milo Connick Chair in Religion

Named in honor of C. Milo Connick, Professor Emeritus of Religion and College Trustee, this endowed chair provides funds for support of distinguished faculty in the field of Religion. Funding for the chair was made possible through the support of C. Milo Connick, Richard and Sharon Ettinger, Jr. and Ray and Joanie Dezember.

## The Genevieve Shaul Connick Chair in Religion

Named in honor of Genevieve Shaul Connick, deceased spouse of Milo C. Connick, professor emeritus and college trustee. The Chair provides support for a faculty member in Religious Studies.

## The Richard and Billie Deihl Distinguished Chair

Richard Deihl '49 and his wife '50, both alumni, established this Endowed Chair to provide funds for support of a distinguished scholar. Richard has been a long-time trustee of Whittier College as well as a prominent executive in the financial services industry.

## The Douglas W. Ferguson Chair in International Economics

Named in honor of Douglas W. Ferguson, long-time member of the Whittier College Board of Trustees, the chair was endowed at the time of his retirement as Chief Executive Officer, Quaker City Federal Savings and Loan. The endowed chair provides funds for support of a distinguished faculty member in the field of international economics.

## The James Irvine Foundation Chair in the Biological Sciences

Established through the generosity of the James Irvine Foundation, this endowed chair provides for the support of a faculty member in the field of Biological Sciences, who has distinguished him/herself as an instructor, researcher and author.

## College Life

## The Fletcher Jones Chair in Molecular Biology or Genetics

The funding for the Fletcher Jones endowed chair was generously provided through the Fletcher Jones Foundation. This Endowment provides funds for support of a distinguished faculty member in the field of Molecular Biology or Genetics.

## The John A. Murdy Chair in Business Administration and Economics

Funded by the Murdy Foundation and Trustee Maxine Murdy Trotter '47, the John A. Murdy Chair in Business Administration and Economics is named in honor of Mrs. Trotter's father, former state senator John A. Murdy, Jr. and her brother John A Murdy III, a member of the Class of 1950 and a former college trustee. The Chair provides support for a faculty member in the departments of business and economics.

The W. Roy and Alice Newsom Chair in Chemistry
Named in honor of the late Roy Newsom, tenth President of Whittier College, and his wife Alice. The Newsom Chair provides support for an outstanding scholar/teacher in Chemistry. W. Roy Newsom was a leader at Whittier College for forty years: 1934 graduate, Professor of Chemistry and department chair, Dean of the College, Vice President for Administration, and President of the College.

## The Richard M. Nixon Chair in Public Policy

This chair honors President Richard M. Nixon, distinguished public servant and Whittier College graduate in the class of 1934. This specially endowed program, established by his family and friends, enables the College to bring outstanding scholars to campus each year for seminars and public lectures on issues related to public policy.

## The Albert Upton Chair in English Language and Literature

The Albert Upton Chair in English Language and Literature commemorates the director of Whittier's earlier liberal education curriculum, the General Studies Program, and the designer of a semantically oriented freshman English course. The holder of the Upton Chair is committed to the teaching of writing, and plays an important role in the College's writing program.

## The Nadine Austin Wood Chair in American History

Named in honor Nadine Wood, deceased spouse of Donald "Bill" Wood L.H.D. '98, trustee and college treasurer, this endowed chair provides support for a faculty member in American History. Nadine was active in community organizations, particularly the Whittier Historical Society, and the Friends of the Shannon Center. Bill has been a college trustee since 1975.

## Recognition of Student Academic Achievement

Honoring our students' academic achievements is among the most important things Whittier College does. From national honor societies to the Dean's List and honors at graduation, we take pride in and recognize academic achievement.

Whittier College supports the following national honorary and leadership societies:
Alpha Kappa Delta (Sociology)
Alpha Pi Delta (Business)

## College Life

Alpha Psi Omega (Drama)<br>Cap and Gown (Student Honorary)<br>Delta Phi Upsilon (Child Development)<br>Omicron Delta Epsilon (Economics)<br>Omicron Delta Kappa<br>Omicron Psi (Non-traditional students)<br>Phi Alpha Theta (History)<br>Phi Sigma Tau (Philosophy)<br>Pi Delta Phi<br>Pi Sigma Alpha (Political Science)<br>Psi Chi (Psychology)<br>Sigma Pi Sigma (Physics)<br>Sigma Tau Delta (English)<br>Sigma Delti Pi (Spanish)

## Dean's List

An undergraduate student will be awarded Dean's List honors if he/she earns a 3.70 GPA while completing 12 gradable units (letter grades of A through F) in the Fall or Spring terms. No Dean's List honors will be awarded for Summer or January terms.

## Academic Achievement Convocation

A formal convocation, with faculty marching in full academic regalia, is held each spring semester to honor students with outstanding academic achievements. In addition, students and faculty honor one faculty member each year with the Harry W. Nerhood Teaching Excellence Award.

## Distinction in the Major

The Whittier College faculty believes that students who have achieved excellence in their majors should receive recognition at graduation. Because this is an award for academic achievement, rather than service, the criterion will be either a superior grade point average in the major ( 3.5 minimum, at the discretion of the department) or other extraordinary academic achievement (published or publishable papers, presentation at a conference, significant research or creative project). The GPA will be based on seven semesters, including the first semester of the senior year. For transfer students, at least $50 \%$ of the units required for the major should reflect work done at Whittier College, or in programs under the auspices of the College, in order to be considered for the award. In addition to recognition in the graduation program, the student's achievement will be noted on the transcript.

## Honors at Commencement

Each year Whittier College grants academic honors to deserving seniors at Commencement. The determination is based on grades received throughout all undergraduate studies at Whittier College. Honors at Commencement are based on students' grade point averages rounded to the nearest hundredth. Students will receive the highest level of honors for which they are eligible. Those whose grade point averages are either in the highest $1 \%$ of their class or at least 3.90 are eligible for the award Summa Cum Laude. Those whose grade point averages are either the highest 3\% of their class or at least 3.80 are eligible for the award Magna Cum Laude. Those whose grade point averages are either in the highest $7 \%$ of their class or above 3.60 are eligible for the

## College Life

award Cum Laude. No student whose grade point average is either below the top $10 \%$ of their class or below 3.50 will be eligible for honors at graduation. In order to graduate with academic honors, the student must have earned at least 60 credits at Whittier College. Two-thirds of the total credits earned must be letter grades.

## Student Life

The mission of Student Life at Whittier College is to provide students with a distinctive, high quality, co-curricular experience that complements the academic program. Student Life provides support services that recognize the diverse needs of Whittier College undergraduate students. Student Life assists students in their academic and personal development, and helps students to develop and strengthen skills, attitudes, and values appropriate for leading and serving in a global society. Student Life is guided by student development theory and professional expertise in student affairs. Programs and services additionally reflect the College's Quaker heritage-expressed by friendliness, strong cooperative relationships with faculty and students, consultative decision-making, a concern for the individual, respect for the community, and a strong value on social responsibility.

## Residential Life

Most Whittier College students live in one of eight campus residence halls. Residence halls accommodate from 20 to 210 students. They are staffed by full-time Area Coordinators and undergraduate Resident Advisors who provide students with continuous support, assistance, and program opportunities for learning and development.

Because on-campus living is viewed as an integral part of the educational experience at Whittier College, all first year students, sophomores, and juniors are required to live on campus. Exceptions are extended to students who reside with their parents or legal guardians in the Los Angeles area, are 22 years of age or older, are married, or have exceptional circumstances documented by petition to the Assistant Dean of Students/Director of Residential Life. Residential students are additionally required to subscribe to one of the meal plans offered through the Campus Inn.

All residence halls are part of the "house" system, with resident faculty masters and their families living on campus adjacent to student residences. This out-of-classroom living and learning opportunity creates a learning environment unmatched on the West Coast. The residential college, or "house" tradition, at Whittier is modeled after those established at Oxford and Cambridge universities, and exists only at a handful of distinguished American colleges and universities. It is designed to extend the classroom learning experience to all aspects of students' lives. Educational and social programs including such events as scholarly lectures, dinners, musical performances, and cooking classes are hosted by the faculty members in their homes. To enrich student experience at Whittier College, faculty masters also frequently sponsor trips to museums, galleries, theaters, and concerts in southern California.

## Student Activities

The Office of Student Activities works closely with the student government and officers of various clubs and organizations to promote and encourage co-curricular activities that meet the interests of the student body. Numerous student organizations initiate a variety of programs with the financial support of the student activity fee. The Office of Student Activities also advises programming in The Club. Comprehensive information about

## College Life

opportunities for leadership and involvement at Whittier College through societies, publications, broadcasting, clubs and organizations is available in the Student Handbook and through the Office of Student Activities in Hastings House.

## Career Services

Career Services assists students in choosing, planning, and implementing their careerrelated goals. The primary areas of focus include career planning, career preparation, and job search assistance. Career planning services include individual counseling, selfassessment workshops, assessment inventories, a career planning course, and materials in the career resource library. Career preparation involves the development of internship and other forms of career-related work opportunities to assist students in acquiring career-related skills and experience prior to graduation. Job search assistance includes providing referrals for on campus work-study positions; off-campus part- and full-time job listings; workshops on résumé writing, interviewing skills, and job search strategies; an on-campus interview program; and educational placement file services. The Career Services Office also maintains directories and information on graduate school programs. Career Services' web page www.whittier.edu/career/career.html contains helpful information and links for career exploration, internships, summer jobs, full-time positions, graduate school, and conducting a job search and much more.

## Counseling Services

Counseling Services provide the opportunity for students to discuss personal, emotional, and academic problems with a counselor in a safe, confidential environment. Under the direction of a licensed clinical psychologist, services are provided by psychologists, psychology interns in training, or postdoctoral associates. Services are free to currently enrolled undergraduate students and include short-term, problem focused individual counseling; group counseling; and programs on many aspects of campus life. There is also a small library of books, tapes, and articles that can be borrowed. Staff are prepared to provide referrals to students who need resources not offered by the counseling service.

## Health Services

The Health Center provides treatment for common illnesses and minor injuries; immunizations; women's health exams; health education, illness prevention information; referral to local medical services when needs cannot be addressed on campus; and a variety of other services. The Center's Nurse/Director is available from 8:00 a.m. - 4:30 p.m. Monday through Friday. The doctor is on duty at various times during the week. There is no charge for a visit; however, there is a small charge for medications and lab tests. After hours or emergency medical attention is available through Whittier Presbyterian Hospital or Bright Medical Associates Urgent Care.

All full-time students must be covered by health insurance while attending Whittier College. Students who are not covered by a personal or family policy are required to participate in a Student Health and Accident Insurance Program provided by the College for a fee.

## Learning Support

Learning Support Services provides individual and group instruction, advising, tutoring, and assistance to address the diverse academic needs of all Whittier College students, including students with learning disabilities.

## Student Rights and Responsibilities

A student enrolled at Whittier College assumes an obligation to conduct himself or herself in a manner compatible with the College's function as an educational institution. The College will not police the personal lives of students on or off campus, but the College does have jurisdiction over student conduct that is unacceptable to an academic community.

The Code of Students' Rights and Responsibilities, created jointly by faculty, students, and administrators, is published annually in the student handbook and describes the principles and procedures employed at Whittier College. All members of the Whittier College community are expected to uphold and protect the values of the College.

## Academic Honesty

When we engage in scholarship, we seek answers to questions we care about; we learn from others' work, and we add our contributions to a growing body of knowledge. By citing sources whose work has helped to shape our own, we identify ourselves as members of a community made up of fellow seekers of knowledge. However, we cannot honestly value that knowledge unless we also value truth. Acts of academic dishonesty are lies. They degrade our shared search for understanding as a community of scholars, and they undermine the integrity of that community by injecting falsehood into our dialogue. As a historically Quaker college, Whittier honors the Friends' testimonies of truth, community, and equality, and equality does not in this context simplistically imply that we are all somehow identical; rather, the term reflects our conviction that we are all worthy of equal respect. Thus, when members of our community commit acts of academic dishonesty, they are not committing victimless crimes. By violating-even in secret-the respect which they owe their colleagues, they tear the fabric of our community. Further, by shrinking from the self-defining work of scholarship, they hurt themselves.

Because the preservation of academic honesty is as fundamental to our shared enterprise as the transmission of knowledge, the faculty and administration of the College regard educating students in academic integrity to be as important as inspiring them to rise to the challenge of learning. Thus, adherence to the policies delineated below reflects the commitment of our community to a single standard of truth, a standard binding on students, faculty, and administrators alike.

## General Policy

Academic honesty is expected of all members of the Whittier College community. Failure to adhere to standards of honesty will result in sanctions.

The following definitions will help you understand the boundaries of academic dishonesty. The sanctions section, which follows, will help you understand the seriousness of various types of academic dishonesty.

## Definitions

These definitions do not represent a complete list of possible infractions; rather, they are intended to generally reveal the range of conduct which violates academic honesty. Presentation of this list is prompted by the belief that education concerning improper conduct will help students avoid such practices, including those which, although innocently performed, may technically be classified as academically "dishonest."

## College Life

1. plagiarism - presenting the words or ideas of another person requires proper acknowledgment; failure to do so is plagiarism; this applies to direct quotations, paraphrases or summarized ideas; guidelines concerning standards for citation may be found in the Random House Handbook, which is owned and used by all students from the time they take Freshman Writing. Two examples of plagiarism and an example of proper acknowledgment may be found immediately following these definitions;
2. submission of same work in two courses without explicit permission to do so Presenting all or part of work done for one course in another course requires permission of the instructors of the involved courses. A related point is that paired courses, by design, often require submission of the same work in the two associated courses;
3. unauthorized collaboration - In many course activities, other than examinations, collaboration is permitted and encouraged. Course syllabi and in-class instructions will usually identify situations where collaboration is prohibited, but the student shares responsibility for ascertaining whether collaboration is permitted. In cases where a student receives tutoring on a course topic, the student should consult the professor of the course to understand the permissible limits of the tutoring help;
4. cheating - this is a very broad category encompassing a variety of forms of misrepresentation and fraud; examples include sharing exam answers, presenting work done by another as one's own, changing in any way work which may be reviewed in response to a grade reconsideration request, having a falsely identified person take an exam, or using notes, books and the like in closed-book examinations;
5. misrepresentation of experience or ability - providing false information concerning academic achievement or background in an area of study; for example, falsely reporting the substance of an internship;
6. falsification of records - any attempt to change grades or written records pertaining to assessment of a student's academic achievement;
7. sabotage - destruction of or deliberate inhibition of progress of another person's work related to a course; this includes the destruction of shared resources such as library materials and computer software and hardware;
8. complicity concerning any of the above - any act which facilitates academic dishonesty is itself an act of academic dishonesty.

## Examples of Plagiarism

Plagiarism requires special attention. Too often students fail to understand the principles of documentation-that is, when to cite a source and/or how to paraphrase the source material utilized if it is not presented as a direct quote. The following segment from the Random House Handbook (Crews, 1992, pp. 181-83) is presented to emphasize the importance of documenting sources and to offer aid in understanding when to do so:

Consider the following source and three ways that a student might be tempted to make use of it.

SOURCE
The joker in the European pack was Italy. For a time hopes were entertained of her as a force against Germany, but these disappeared under Mussolini. In 1935 Italy made a belated attempt to participate in the scramble for Africa by invading Ethiopia. It was clearly a breach of the covenant of the League of Nations for one of its members to attack another. France and Great Britain, as great powers, Mediterranean powers, and the

## College Life

African colonial powers, were bound to take the lead against Italy at the league. But they did so feebly and half-heartedly because they did not want to alienate a possible ally against Germany. The result was the worst possible: the league failed to check aggression, Ethiopia lost her independence, and Italy was alienated after all.

VERSION A:
Italy, one might say, was the joker in the European deck. When she invaded Ethiopia, it was clearly a breach of the covenant of the League of Nations; yet the efforts of England and France to take the lead against her were feeble and half-hearted. It appears that those great powers had no wish to alienate a possible ally against Hitler's rearmed Germany.

Comment: Clearly plagiarism. Though the facts are public knowledge, the stolen phrases are not. Note that the writer's interweaving of his own words with the source does not make him innocent of plagiarism.

VERSION B:
Italy was the joker in the European deck. Under Mussolini in 1935, she made a belated attempt to participate in the scramble for Africa by invading Ethiopia. As J.M. Roberts points out, this violated the covenant of the League of Nations (Roberts 845). But France and Britain, not wanting to alienate a possible ally against Germany, put up only feeble and half-hearted opposition to the Ethiopian adventure. The outcome, as Roberts observes, was "the worst possible: the league failed to check aggression, Ethiopia lost her independence, and Italy was eliminated after all" (Roberts 845).

Comment: Still plagiarism. The two correct citations of Roberts serve as a kind of alibi for appropriating the other, unacknowledged phrases.

VERSION C:
Much has been written about German rearmament and militarism in the period 1933-1939. But Germany's dominance in Europe was by no means a foregone conclusion. The fact is that the balance of power might have been tipped against Hitler if one or two things had turned out differently. Take Italy's gravitation toward an alliance with Germany, for example. That alliance seemed so far from inevitable that Britain and France actually muted their criticism of the Ethiopian invasion in the hope of remaining friends with Italy. They opposed the Italians in the League of Nations, as J.M. Roberts observes, "feebly and half-heartedly because they did not want to alienate a possible ally against Germany" (Roberts 845). Suppose Italy, France, and Britain had retained a certain common interest. Would Hitler have been able to get away with his remarkable bluffing and bullying in the late Thirties?

Comment: No plagiarism. The writer has been influenced by the public facts mentioned by Roberts, but he has not tried to pass off Roberts' conclusions as his own. The one clear borrowing is properly acknowledged.

## Sanctions

Various sanctions exist which may be applied in response to an act of academic dishonesty. The severity of sanctions will correlate to the severity of the offense. Judgment of the severity of an academic dishonesty offense is the responsibility of the faculty member. The faculty member is encouraged to seek counsel of faculty colleagues, the Associate Dean for Academic Affairs and/or the Dean of Students in gaining perspective concerning the severity of an offense.

All grade related sanctions shall be levied by the faculty member teaching the course within which the offense occurred. The Associate Dean for Academic Affairs and the Dean of Students are available to provide guidance concerning appropriate sanctions.

## College Life

The following list more completely articulates the sanctions which may be levied in response to acts of academic dishonesty:

1. A warning - indicating to the student, faculty and/or administration knowledge of the incident; this will ordinarily be accompanied by a requirement that the student redo the work if the infraction is related to a course assignment; included will be notification that another act of academic dishonesty will result in a more severe sanction;
2. A letter grade reduction on the assignment - this will also ordinarily be accompanied by a requirement to redo the work;
3. A failing grade for the assignment - this applies in cases where the faculty member chooses not to allow redoing the work;
4. A failing grade for the course - this would be a suitable sanction for a serious case or for repeated cases of less extreme infractions;
5. Suspension from the College for a specified minimum period of time - this sanction will ordinarily be applied when in the estimation of the Dean of Students a pattern of misconduct (both academic and non-academic) is so chronic or severe that separation from the campus community is warranted; if serious enough, a single case of academic dishonesty can result in suspension; this could occur in the case of indisputably willful intent by the student to commit an academically dishonest act, such as altering a professor's grade record or maliciously damaging academic work of another individual; suspension may take effect immediately following the hearing; continuing attendance at the college may be permitted during an appeal; the minimum period of suspension will be the balance of the current semester; ordinarily the period of suspension will continue through the entire following semester, excluding summer sessions.
6. Expulsion from the College - this sanction is used in the event of extraordinarily grave cases of academic dishonesty or when less severe cases of dishonesty persist after one returns from a period of suspension for academic dishonesty.

## The Process

Faculty members should provide the student with a written account of the offense and the sanction. Faculty members should also report cases of academic dishonesty to the Office of the Dean of Students, including an indication of the sanction levied (this could be a copy of the letter sent to the student).

The Dean of Students will monitor academic dishonesty infractions in the context of a student's entire record of misconduct at the college. When appropriate the Dean of Students will activate a hearing process wherein the sanctions of suspension or expulsion from the college may be levied. These cases are heard by Hearing Board.

Hearing Board does not reconsider the grade sanction which may have been levied at an earlier stage. It only considers whether additional sanctions are in order, and does not confine consideration to the case of academic dishonesty. Rather, it considers the entire record of misconduct of the student at the college which is compiled in the Dean of Students office.

## Appeals

There are two avenues of appeal, one applicable to appealing grade sanctions, the other applicable to appealing suspension or expulsion decisions. The Grade Appeal Committee of the faculty will consider appeals of grade sanctions. The Dean of Faculty will hear appeals of suspension and expulsion sanctions. No further opportunities for appeal are available.

## The Curriculum

## Degrees

Undergraduate courses offered by Whittier College lead to the degree of Bachelor of Arts. Graduate instruction leads to the degree of Master of Arts.

The Bachelor of Arts degree at Whittier is built upon a pattern of general education requirements to develop breadth of knowledge and an understanding of the relationships among various disciplines. General education is complemented by a major, which may be in a single department or interdisciplinary program, and by electives, which offer students an opportunity to explore additional areas of academic interest. Within this basic structure, Whittier College's curriculum is flexible, to allow for the individual needs, academic interests, and goals of its students. Through the Whittier Scholars Program, the College encourages students with a desire to design their own curricula to do so, in close consultation with a Scholars' Council. Regardless of which curricular path or major a student chooses, Whittier College is committed to developing strong writing skills throughout the curriculum.

## The Liberal Education Program

The Whittier College community shares a love of learning and a delight in the life of the mind; these are at the heart of the Whittier College liberal arts education. A liberally educated person develops an informed self-awareness through a lifelong commitment to learning and through responsible membership in the multiple communities and contexts that make up the environment. (This environment may be understood in terms of time, place, and perspective, and may include physical, social, and spiritual aspects.)
Responsible membership implies the ability to effect change in one's environment. In the service of these values, we present the following primary learning objectives.

1. Students should appreciate that education is a creative, collaborative, and transformative experience. The curriculum should provide a framework for students' awareness of their intellectual, physical, moral, and cultural development.
2. Students should learn to think and articulate their thoughts critically (meaning to define, analyze, and synthesize) using a variety of methods and technologies.
3. Students should develop an understanding of, and competency in, the use of signs and symbols in constructing, creating, perceiving, and conveying meaning.
4. Students should develop the capacity to entertain multiple perspectives and interpretations.
5. Students should develop the ability to understand the convergence and divergence of different fields of knowledge. Students should develop familiarity with essential concepts in major fields, a considerable knowledge of at least one field, and the ability to make connections across fields.
6. Students should develop skills and methods necessary for systematic investigations.
7. Students should develop an understanding of themselves and others in relation to physical, historical, cultural, and global contexts.

## Outline of Liberal Education Program

Freshman Writing Experience

Mathematics
Natural Science

Civilizations, Cultures, and Global
Perspectives

Comparative Knowledge
Creative and Kinesthetic Performance

Six credits taken during the freshman year including a seminar taken by all students and a writing intensive course.
Three credits of course work in mathematics. Eight credits consisting of an Introductory Lab Science and Science and Math in Context. Seventeen credits of work in American, European, African, Asian, or Latin American civilizations and cultures and in International or Global Perspective and the Individual in a Social Context.
Six credits in Paired or Team-Taught Courses Two credits in Creative Arts and two credits in Kinesthetic Performance.

## Whittier Scholars Program

Throughout its history, Whittier College has been committed to high quality, innovative education and to a concern for the individual, particularly as a member of a community. The Whittier Scholars Programs exists within the context of those two traditions. It is a rigorous, individualized interdisciplinary program that offers an alternative approach to a liberal arts degree. Working with faculty advisors and their peers, students in the Scholars Program construct an educational program that is unique to them, as well as designed to make them educated individuals in the world today. Through interdisciplinary seminars, discussions with faculty and peers, and guest lecturers, students explore fundamental questions that help them define themselves and their goals and the role that education plays in helping them achieve those goals. These ideas are further explored as part of the requirement to complete an off-campus experience such as study abroad and community service.

Central to the Scholars Program is the Educational Design process. Through an interdisciplinary seminar and with the assistance of a faculty advisor, students design their own course of study. Each design must have coherence and purpose while still supporting the goals of the individual student. All designs must be presented to, defended before, and approved by faculty members of the Whittier Scholars Council. Student reflection does not end with the Educational Design process. Rather, students continue to examine their goals, objectives and values on an ongoing basis throughout their course of study as part of all the Whittier Scholars Program seminars.

Although students design their own course of study, the program does have some specific requirements. Because one of our ideals is the ability to communicate, the College Writing requirement also applies to those students in the WSP. In addition, three three-credit interdisciplinary seminars plus the Design Your Education course and a Senior Project are required to complete the program successfully.

The seminars are taught by faculty members from across the College and focus on fundamental and enduring questions and topics that demand analysis, value judgments and synthesis, and include significant student participation and research. Students come to grips with what they believe and why, but they also learn that the search is more important than any single answer. Through the seminars, there is a progression toward greater self-direction and discovery, which culminates in the Senior Project process.

## The Curriculum

The first course, "The Individual, Identity and Community," is the foundation course for the Scholars Program and is typically taken in the freshman year. It is designed to enable students to explore issues such as: human beings in a social context; the relationship between the individual and the community; the role of education and the life of the mind; and the ways in which values and affect play a role in asking and understanding enduring questions and analyzing issues. These themes are addressed in terms of different historical periods, disciplines, cultures and identities.

The WSP course of study then builds upon that seminar by having students continue to explore their own values in the Design Your Education class. That course is then followed by another interdisciplinary seminar called "Nature, Theory and Bases of Knowledge." This seminar explores various methods of gathering and understanding knowledge from a number of disciplinary perspectives. By the conclusion of the course, students should have an awareness of what knowledge is and also an understanding of the approach most appropriate for them as they begin the Senior Project process. The final course in the sequence is a Senior Seminar which enables students in the program to share their ideas and to peer review one another's work as they progress through the creation of a Senior Project.

The Senior Project is the culmination of the Whittier Scholars Program. The concept must be presented and defended to faculty members of the Whittier Scholars Program in the form of a proposal which frames the Project, places it in a disciplinary context, and provides a bibliography (where appropriate) and timetable for completion. Each student works on the Project with a faculty Sponsor selected by the student who serves as a mentor and guide through the process. The Project may be a research paper, an art portfolio, the production of a play, or anything else that allows each student to prove him/herself as a scholar. The Senior Project permits students to demonstrate that they can learn on their own, that they have attained a level of mastery appropriate to advanced undergraduate work, and that they are aware of the relationship of themselves and their work to others in their own and different disciplines. Students then share their Senior Projects with the larger Whittier College Community as part of a WSP Senior Synposium series.

Admission: Provisional acceptance to the Whittier Scholars Program requires admission to the College and completion of an application to the program concurrent with enrollment in one of the first two courses in the program. Full acceptance follows successful completion of the first seminar, the Educational Design course, and Whittier Scholars Council faculty approval of an Educational Design.

## Writing Program

At Whittier College, each student learns to think critically and write effectively. Because the need to communicate clearly is essential in every discipline, faculty from every department share responsibility for improving students' writing abilities. For these reasons, the faculty have constructed a writing program that spans four years at Whittier College.

The Whittier College Writing Program begins with Freshman Writing Seminars. Among the most popular courses that freshmen take, these fall semester seminars are limited to 15 students and are taught by faculty from all disciplines on topics such as "Science and the Criminal Justice System," "Wilderness Writing," and "Writing to Understand: Contextualizing the Chicano/Mexican-American Experience through Literature." The second component of the Writing Program is the Writing Intensive

## The Curriculum

Course, which all students take in either the second semester of their freshman year or the first semester of their sophomore year. WIC is comprised of lower-division courses in most disciplines which emphasize writing as a process and build on the Freshman Writing Seminars. The third component of the program is "writing across the curriculum:" students write in all courses offered in the Liberal Education and Whittier Scholars Programs-including science and mathematics courses. Capping the Writing Program is the "paper-in-the-major." Written in the junior or senior year and a requirement for graduation, this paper demonstrates the student's command of his or her major's perspectives, methods, and body of knowledge, as well as his or her ability to communicate these skillfully in writing.

## Academic Policies

## Academic Records

The purpose of the Educational Rights and Privacy Act of 1974 is to assure students at Whittier College access to any and all records kept by Whittier College that are defined as educational records and to assure the privacy of students by restricting the disclosure of information from educational records only to those persons authorized under the Act. Procedures and policies for access to specific records may be obtained from the appropriate office.

Information from educational records is not available to unauthorized persons on campus, or to any person off campus without the express written consent of the student involved, except under legal compulsion (e.g. subpoena, warrant), or in cases where the safety of persons or property is involved. In compliance with judicial order or subpoena, an attempt must be made in advance to notify the student. A signed consent from the student must be presented, where appropriate, to the Dean of Students, the Registrar, or other appropriate college officials, before information will be released to those persons who are not institutional authorities specifically authorized to inspect these files.

Students in attendance at Whittier College, and parents of such a student with prior written consent of the student, have access to any and all education records maintained by Whittier College, including the right of obtaining copies by paying copy fees.

The College will not disclose personally identifiable information from the educational records of a student without the prior written consent of the student, with some exceptions, except information that has been designated as directory information: the student's name, address, telephone number, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

Whittier College will give public notice as to the information designated as directory information. The student has the right to prohibit the designation of any or all of the categories of personally identifiable information with respect to that student, provided that said student notifies the Office of the Registrar in writing that such personally identifiable information is not to be designated as directory information with respect to that student. Notification must be made to the Office of the Registrar within three days after the student registers each semester.

## Auditing

Lecture and recitation courses may be audited without credit with the consent of the instructor. The normal audit fee is assessed. Courses such as laboratory or studio work may be audited, but regular tuition and fee charges apply. A student auditing any course takes no examinations and receives no grade or credit.

## Classification of Students

Classification of undergraduate students is determined by the total number of units completed, including those accepted by Whittier from another college or university. Classification is established as follows:

| Freshman | $0-29$ | semester credits |
| :--- | :--- | :--- |
| Sophomore | $30-59$ | semester credits |
| Junior | $60-89$ | semester credits |
| Senior | $90-$ graduation | semester credits |

## Commencement

The College conducts one Commencement each year in late May. However, the date of the degree noted on the student's permanent record is the last day of the term during which degree requirements were completed.

Commencement at Whittier College is a very special event. The faculty are proud of the College's graduates and, as such, attendance at Commencement is a College requirement if clearance from the Business Office has been secured. Students may be excused only by approval from the Office of the Registrar.

In order to be listed in the Commencement program and to participate in the graduation ceremonies, all graduation requirements must be satisfied before Commencement. To be eligible as a summer graduate and participate in Commencement, a student must register and pay (or make suitable arrangements with the Business Office) for the courses needed in the summer at least three weeks prior to Commencement.

## Credit by Examination

College credit totaling a maximum of 30 semester hours may be earned by satisfactorily completing approved examinations. Acceptable examinations include College Entrance Board Advanced Placement Tests and International Baccalaureate Higher Level Examinations. No more than eight units may be awarded from a single department.

Entering students who have passed Advanced Placement Tests with a score of four or five will receive credit toward graduation if the tests are in subject areas taught at Whittier and the academic department approves. The Registrar's Office can provide information on specific departmental policies on numbers of credits awarded and course equivalencies.

Entering students who have passed International Baccalaureate Higher Level Examinations with a score of five or above will receive credit toward graduation on a case-by-case basis with the approval of the academic department.

## Graduate Standing

Those who have been granted baccalaureate degrees (or equivalent) from accredited colleges and universities are admitted for fifth-year work as graduate students if they have met the requirements for degree candidacy as determined by the Whittier College faculty.

## Non-Degree Standing

For those interested in academic pursuits outside of any degree requirements, "nondegree" standing is permissible on either a part-time or full-time basis with the approval of the Admissions Committee. A non-degree student must satisfy the English proficiency requirement for degree candidates at the College. A student may transfer no more than 30 credits of courses taken at Whittier College under non-degree status toward a Whittier College Bachelor of Arts and no more than 12 non-degree credits toward the Master's degree at the College.

## The Curriculum

## Readmission

Those students who have interrupted their studies at Whittier for a semester or more must be readmitted by the Registrar's Office. Transcripts must be submitted from any other college(s) attended during the absence from Whittier. Readmitted students may begin classes at the beginning of the fall, January, or spring terms.

## Registration and Class Scheduling

The Office of the Registrar is the principal source of information concerning registration procedures. Details are contained in the Schedule of Classes published each semester prior to the pre-enrollment period. Pre-enrollment provides an established time for currently registered students to consult with advisors and reserve courses for the following semester.

However, a student must complete registration during the assigned period at the beginning of each term by paying tuition and fees and by filing the completed registration form with the Registrar. A new, re-admitted, or continuing student who did not pre-enroll must register during regular registration periods. No credit will be given for a course in which the student is not officially registered.

Flexibility for learning is built into daily and weekly class scheduling. 50-minute and 80-minute class periods are available throughout each week day. Frequency of weekly meetings varies, depending upon the credit value of the particular subject.

## Registration Changes

Once the student has filed the registration form with the Registrar, any necessary changes must be made on the appropriate form during the period stated in the Academic Calendar. The faculty mentor or advisor must approve all program changes. Individual instructors must approve the addition of any student to their classes. No change is accepted after the third week of the semester.

## Student Grade Report

A formal student grade report indicating academic achievement is issued for each term. Grade reports are sent to the student mail boxes at the end of the fall semester and the January Interim. They are mailed to the student's permanent address at the end of the spring semester.

## Study Load

A minimum full-time study load is 12 credit hours per semester. (One credit hour is equivalent to one semester hour.) A normal course load for students planning to graduate in four years is 30 credits per year; this could be accomplished by taking 15 credits each semester or, in some years, by taking 13 credits each semester and a 4-credit course during the January Interim. Credit hours taken in excess of 15 require additional tuition charges. An extra study load, more than 17 credit hours per semester, must be approved by the student's mentor or advisor and certified by the Registrar. Forms for an extra study load are available in the Registrar's Office.

## Transcript of Whittier College Record

A transcript of the academic record will be issued upon written authorization of the individual. Only credits accepted for transfer from other institutions will appear on the Whittier transcript along with credits earned at Whittier College.

One transcript is furnished free of charge. All subsequent transcripts carry a fee of $\$ 4.00$ payable upon submission of the request.

Transcripts and diplomas will be withheld for any student who has outstanding financial obligations to the College.

## REQUIREMENTS FOR GRADUATION

All students entering Whittier College will follow one of two paths to a Whittier degree: the Liberal Education Program or the Whittier Scholars Program.

The completion of all requirements for a degree is a student's responsibility. A student has the option of completing graduation requirements prevailing at the time of admission or readmission, at the time of graduation, or any intervening year of continuous full-time enrollment. Graduation requirements cannot be selected from two or more catalogs.

Every junior must submit a Graduation Plan at pre-registration in the spring for fall semester. No junior will be allowed to register for his/her senior year until this plan has been submitted. All courses projected for the senior year should be included. Subsequent changes can be made by filling out the appropriate form in the registrar's office.

The Graduation Check Sheet, with any problems noted, will be returned at the time of registration confirmation in the fall. Students who do not finalize their Graduation Plans by the end of the add period for Spring Semester classes of their senior year may not be allowed to graduate with their class.

Students must monitor their own progress through frequent reference to the appropriate catalog. Consultation with faculty advisors as well as with the Registrar is suggested to assure satisfactory progress toward completion of the degree.

High school deficiencies may be met by enrolling in appropriate Whittier College courses, through a local high school or community college, through extended education or summer school courses, or by some other acceptable alternative. Students with high school foreign language deficiencies must take six credits of a single foreign language.

Both degree paths require a minimum of 120 credits for graduation, satisfaction of the College Writing Requirement (one course, for three credits, taken in the fall semester of the freshman year, and a writing intensive course in the spring semester of freshman year or the fall semester of sophomore year, also for three credits), and residence at Whittier College while completing the final 30 credits of college work. Further, an overall grade point average of not less than 2.0 in Whittier College courses is required in order for a student to be eligible for graduation.

## Liberal Education Program Requirements

Six credits of writing including a Freshman Writing Seminar and a Writing Intensive Course.
Three credits of Mathematics.
Eight credits in the Natural Sciences including an Introductory Lab Science and Science and Mathematics in Context.
Twelve credits in the Civilizations and Cultures of America, Europe, and Asia, Africa, or Latin America.
Three credits in International or Global Perspectives.
Two credits involving The Individual in a Social Context.
A Comparative Knowledge Paired or Team-Taught Course for six credits.
Two credits in the Creative Arts.
Two credits in Kinesthetic Performance.
(Lists of courses which satisfy these requirements are available from the Registrar.)

## The Curriculum

Once a student has matriculated at Whittier College, course work taken at other institutions (other than Whittier College Overseas programs) cannot be used to satisfy Liberal Education Requirements.

When a student fails to complete satisfactorily one of a paired set of courses, no Liberal Education credit will be given for the part, although, the successfully completed part will count toward graduation. The student must then complete a different paired set to satisfy the Comparative Knowledge requirement.

Credit received for Advanced Placement (A.P.) from high school may satisfy Liberal Education requirements in appropriate areas. See the Liberal Education section of this Catalog for more information.

A student may satisfy both high school deficiencies and Liberal Education requirements with the same course.

Courses taken in a semester-length study-abroad program may be applied to Liberal Education requirements as specified in the catalog description of Whittier Foreign Study Programs. Courses approved for study in Copenhagen are published annually by the Liberal Education Committee, while courses for other programs must be approved in advance by the Registrar, based on guidelines developed by the Liberal Education Committee.

## Requirements for the Major

Every student, by no later than the Fall registration period for the Spring semester of his/her sophomore year, will declare a major and select an appropriate faculty advisor. Students must have an advisor approved for their major by the Advisement Office.

Students who transfer in with 45 credits or more must declare a major upon entrance.
At each registration, a student has the opportunity to confirm or change his/her major. During non-registration periods, this can be done in the Advisement Office.

A minimum of 30 credits is required in the major field. See each department for specific course requirements.

A maximum of 48 credits in a single discipline may be counted toward the 120 credits needed for graduation. At least 72 units must be completed outside of the major. In a department housing two or more recognized disciplines, a maximum of 60 credits may be counted from the department.

At least 12 credits in the major must be taken at Whittier College.
A minimum grade point average of 2.0 is required in the courses taken from the major department.

## Requirements for a Minor

Minors may be earned as part of a student's academic achievement but are not required for graduation. Students considering a minor should contact the faculty advisor for minors in their department of interest early in their academic career.

A minimum of 16 credits is required for a minor, and specific requirements are defined in this catalog for each department.

Only six credits of coursework may be counted toward both a major and a minor.

## Graduation Requirements for Transfer Students

All Requirements for Graduation apply, as stipulated in the previous pages, with the exceptions indicated below.

The Registrar of Whittier College will determine which credits transferred from another institution may be used to satisfy each requirement.

Adjustments of the Graduation Requirements (based on Undergraduate Standing at entrance):

Liberal Education Requirements: All students with transfer credits, regardless of the number of transfer credits that satisfy Liberal Education Program requirements, must complete one set of paired courses or a team-taught sequence in Comparative Knowledge at Whittier.

## Whittier Scholars Program Requirements

Six credits of College Writing (Freshman Writing Seminar and a second 3-credit approved writing course. Students admitted to the WSP may meet the second-semester writing requirement by successfully completing WSP 101.)
An approved Educational Design
Whittier Scholars courses 101, 201, 301 and 401, all of which should be taken sequentially An off-campus experience (study abroad or off-campus internship)
A Senior Project
Completion of 60 credits after the Educational Design has been approved
If a student transfers from the Whittier Scholars Program to the Liberal Education Program, the student must submit a formal letter signed by his/her advisor and the Director of the Whittier Scholars Program to the Registrar's Office. The Registrar will then evaluate the student's academic record as though the student were a transfer student with regard to the Liberal Education requirements. If a student chooses to enter the Whittier Scholars Program after his/her freshman year, then s/he must meet with the Director of the Program to review necessary requirements including completion of WSP 101, 201, 301 and 401, and the acceptance of an off-campus requirement.

## Degree Requirements for the Master of Arts in Education

Candidates attain the Master of Arts in Education Degree upon successful completion of the Educational Design described below. The Department of Education and Child Development, the student's graduate advisor, and other faculty members representing the area of specialization must approve the Educational Design prior to completion of the degree. (Ideally, this would occur prior to enrolling in ED 502.) The Educational Design consists of the following:

1. Three or four required courses to include one of the following: Introduction to Educational Inquiry (ED 500), OR Advanced Educational Psychology (ED 501), OR Sociology of Education (ED 503); and the following: Research Techniques (ED 502), and Thesis (ED 504). In addition to the above, Thesis II (ED 506), is required when a thesis is not completed according to established deadlines.
2. A concentration with a minimum of 12 units
3. Electives to total 33 units (minimum)
4. Completion of a research thesis in accordance with department policies
5. A maximum of 9 units may be transferred from other institutions

Candidates must file a Master's Degree Completion Plan prior to/or in conjunction with registering for Research Techniques (ED 502). Students who do not finalize their completion plan by the end of the add/drop period for the fall semester may not be allowed to graduate with their class.

All requirements for the M.A. must be completed with a 3.0 minimum GPA; no more than one "C" grade will be applied toward the degree. Students must complete the M.A. within five years of admission to Master's Degree Candidacy. A maximum two-year

## The Curriculum

extension may be sought through petition. Courses completed prior to admission to the program may be accepted at the discretion of the Department of Education and Child Development, but in no case will a course taken more than 10 academic years prior to the date of graduation be applied to the degree. Guidelines and stipulations regarding admission to the program are available in the Department offices. Variation or amendment of the guidelines can only be obtained by petitioning the Department of Education and Child Development.

## Academic Procedures

## Academic Progress Policy

Whittier College students are expected to make continuous progress toward their educational goals. In order to monitor student progress, a faculty committee reviews all academic records after the end of each semester. Students who have received any grades of non-completion have their records placed in an advisement file. Students who have encountered more serious academic problems are advised to seek assistance from their faculty advisor, the Advisement Office, and the Office of Student Life.

Continuing academic problems may result in academic probation with restrictions on enrollment and extracurricular activities. Students who do not meet the obligations of probation or who cease to make satisfactory progress may not be permitted to register for one or more semesters.

Students in good standing who earn a semester GPA of below 2.00 will be categorized as follows for the following semester:

## ACADEMIC REVIEW

A. Good Standing

Students are considered in Good Standing if their overall and last semester grade point averages are both 2.00 or above.

## B. Academic Difficulty

Students who earn a semester grade point average of below 2.00 will be categorized as follows for the next semester:

| $1.50-1.99$ | into Partial Probation |
| :--- | :--- |
| $1.00-1.49$ | into Full Probation |
| $.00-.99$ | into Suspension |

## C. Partial Probation

1. Students who are on Partial Probation status and earn a semester grade point average below 2.00 will be placed on Full Probation for the next semester.
2. Students on Partial Probation who received a semester grade point average above 2.00 will continue on Partial Probation if their overall grade point average is below 2.00; they will resume Good Standing if their overall grade point average is above 2.00 .
3. Students on Partial Probation are not restricted from participating in any activities except that they may not join a society.
D. Full Probation
4. Students on Partial Probation who earn a semester grade point average below 2.00 will be placed on Full Probation. Students on Full Probation may not hold any

## The Curriculum

office in student government, the residence halls, or a society, or participate in athletics, club sports, drama or music productions, the yearbook, or the Quaker Campus, unless required to do so for graduation. Other conditions may be attached to Full Probation by the Academic Review Committee on an individual basis.
2. Students on Full Probation who earn a semester grade point average of 2.00 will be moved to Partial Probation if their overall grade point average is below 2.00; they will resume Good Standing if their overall grade point average is above 2.00.
E. Suspension. Students on Full Probation who earn a semester grade point average below 2.00 will be suspended for at least one semester.
F. Academic Review Committee. Students placed on Partial Probation, Full Probation or Suspension will receive a letter of notification from the Office of the Associate Dean for Academic Advisement.

Students who wish to appeal the conditions that pertain to their level of academic difficulty (Full Probation or Suspension) may request a meeting with the Academic Review Committee. This committee, comprised of faculty and administration, meets prior to the onset of the fall and spring semesters.
G. Guidelines. The following guidelines may be applied by the Academic Review Committee as it deems appropriate:

1. The above policies are designed primarily for full-time students.
2. In considering suspensions, some consideration may be given to the total number of units earned toward graduation.
3. Students may appeal Committee decisions to the Associate Academic Dean. In the case of successful appeal of a suspension, students will be reinstated on Full Probation and additional conditions may be attached to the probation.
4. Students finishing Incompletes successfully may have the severity of the sanction reduced.
5. Incompletes, W's, CR's, and Evaluations will not be used in calculating grade point averages.

## Academic Petitions Policy and Process

The Petitions Committee, composed of faculty and the Associate Dean for Academic Affairs, reviews and makes decisions on student petitions for waivers of admissions requirements, specific graduation requirements as outlined in the College catalog, or other academic requirements. The committee normally grants such waivers only in the presence of strong and sufficient evidence supplied by the student. The Committee considers petitions on an individual basis and does not grant blanket waivers of graduation or other requirements. Ignorance of College requirements and/or financial hardship are not sufficient reasons for the granting of a petition.

The procedure for filing a petition is as follows:

1. The Student discusses a petition request with his or her faculty advisor and/or the Associate Dean for Academic Affairs.
2. The Student fills out the petition form as completely as possible, paying particular attention to "Petition Request" and "Rationale for Request."
3. The Student reviews the petition with his or her faculty advisor and has it signed by the advisor. If necessary, the advisor provides additional comments.

## The Curriculum

4. The Student returns the petition and any supporting materials that may assist the committee in the evaluation of the request to the Registrar's Office.
5. The Petitions Committee reviews the request and provides a written response to the petition.
6. Students may appeal Committee decision. The procedure for appeal is as follows:
a. The Student reviews the Committee's decision with the faculty chair of the Petitions Committee (the name of the chair can be obtained from the Registrar's Office or the Advisement Office).
b. The Student reviews with the faculty advisor the decision of the Committee and the explanation given by the chair of the committee. Before an appointment to appeal the decision is made, the student should be sure to discuss any new and relevant arguments or materials that might persuade the Committee to re-evaluate the original request.
c. The Student makes an appointment, through the Registrar's Office, with the Petitions Committee. All appeals must be made in person before the Committee. Students are entitled to bring an advisor to the meeting. Most students bring their faculty advisor, but any member of the faculty may accompany a student to the appeal.

## Class Attendance Policy

Faculty may, through the end of the fifth school day for semester classes, drop students who have never attended class.

Individual faculty members establish their own attendance policies for each course they teach. Students are advised to check with faculty members about the attendance policies for each class.

## Course Grade Appeal Policy and Process

The faculty of Whittier College believes that grading is the responsibility and prerogative of individual faculty members according to their professional judgments of students' performance, and that this responsibility and prerogative should be safeguarded. Nevertheless, the faculty also recognizes the need to safeguard students of Whittier College against possible bias or lack of uniformity in the evaluation process, and thus has provided a mechanism to address this concern.

The maximum time allowed for filing a grade appeal with the Associate Academic Dean, whether the student is enrolled or not, is one year from the date the grade was awarded.

This mechanism will be used only in cases where strong and demonstrable evidence of bias or lack of uniformity in assigning grades to members of a class exists, and only after all other avenues of appeal have failed to resolve this question.
I. The process to be observed prior to utilizing the grade appeal petition is as follows:

1. The student will discuss a disputed grade for a course with the faculty member in person, in an attempt to resolve the differences over the grade. If no agreement is reached, then
2. The student will consult with the chair of the department in which this faculty member is teaching. If the question is still unresolved, or in the event that the teacher giving the disputed grade is also the department chair, then
3. The student will refer the question to the Associate Dean of Academic Affairs. The Associate Dean will inquire into the matter and attempt to bring about an amicable solution. If no agreement can be reached, and the Associate Dean decides that the matter requires further attention, then

## The Curriculum

4. The Associate Dean of Academic Affairs will direct the student to complete a Grade Appeal Petition, which will be forwarded to the Grade Appeals Committee, composed of the Dean of Faculty, the Chair of the Academic Standing Committee, and one faculty member, appointed by the Faculty Executive Council.

## II. The Grade Appeals Committee

The Committee will investigate the underlying facts of an appeal, which may include interviewing the student, faculty member, and any other persons whom the committee feels might be able to help it clarify the matter. If, in the course of this process, an amicable resolution of the difference can be effected, the Committee's consideration of the matter will end.

If, after making a full inquiry into the matter, no resolution is reached, the Committee will decide the outcome of the grade appeal. Possible decisions may include leaving the grade as it is, changing the grade to correct demonstrated evidence of bias or lack of uniformity in grading, or working out other possible solutions as the Committee sees fit. No grade may be changed unless the Committee reaches consensus on the proposed change.

Academic policies and procedures for post-baccalaureate and graduate students may differ from those cited above for undergraduates. Please see the document, Academic Policies and Procedures for Graduate Programs and Programs in Education, available in the Education Department, for details.

## Directed Study

Directed Study is a tutorial arrangement with a faculty member. Directed Study requires permission of the faculty member and operates under the following guidelines:

1. The student should have completed the basic courses offered by the department in which the work is to be done.
2. The substance of the study should not duplicate the work of any course listed in the catalog; however, students may petition to meet specific course requirements through Directed Study.
3. The student may take only one Directed Study in a given semester.
4. Directed Study courses may be arranged for one to three credits.
5. Directed Study is offered at the discretion of the faculty member who will be supervising the tutorial.

## Final Examination Policy

It is the policy of Whittier College that all final examinations are to be given only at the officially scheduled time for the course as published in the schedule of classes each term. In addition, no take-home final examinations or papers assigned in lieu of a final examination will be due prior to the scheduled time of the final examinations.

## Grading Philosophy

The members of the Whittier College faculty regard the evaluation of student performance as one of their most important responsibilities. They further believe that grading is a vital element in this evaluation in that it allows for the reporting of student progress to the students themselves, to the college for the purposes of advisement and for the awarding of honors upon graduation, and to the outside world, at the request of the student, for the applications to graduate school and for prospective employment.

## The Curriculum

The awarding of grades by the faculty reflects the quality of the students' performance as measured against the individual faculty member's expectations based upon objective criteria, including the nature of the discipline and the faculty member's experience in evaluating student performance within that discipline. Thus, grading will not always be uniform from course to course.

Moreover, the boundaries of academic freedom allow discretion on the part of individual faculty members in the awarding of grades. However, the faculty recognizes that grades must always be rigorously fair, and awarded on the basis of criteria that are explained to the students at the beginning of each course. The following points underscore the faculty's grading framework:

Course expectations and grading are the sole responsibility of the course instructor.
Grades are determined based on the students' mastery of the course materials and demonstration of the skills required.

The grading standards shall be appropriate to the academic level of the course and standards shall not be set either so high that no one can attain an ' $A$ ' nor so low that it is impossible to receive a grade of ' $F$.'

Students have the right to information about how they will be evaluated, so information about grading and grading standards should be contained in the course syllabus.

## Grade Definitions

| A | Excellent | Generally reserved for the very highest level of academic work. <br> B |
| :--- | :--- | :--- |
| Good | Meeting course requirements with a high level of performance. |  |
| C | Satisfactory | Awarded for satisfactory completion of all or most of the <br> course requirements. |
| D | Passing | Awarded for barely meeting the minimum standards of the course. |
| F | Failing | Not meeting the minimum standards of the course. |

## Grading Policy

The academic standards of an institution are largely determined by the admissions policies of the institution and by the standards of work required by the faculty. Once awarded, a grade may not be changed as a result of reevaluation of work submitted by a student. The only justification for a change of a grade is to correct a clerical error on the part of the instructor. The submission of additional work by a student (except to remove an Incomplete resulting from illness or similar circumstances) is not justification for altering a grade, once it has been recorded.

Most courses at Whittier College are graded from A to F with the awarding of (+) or (-) grades is a the discretion of the instructor; however, at the outset of the class, and at the discretion of the instructor, the student may be given the choice of Credit/No Credit(CR/NC) or Letter of Evaluation. Freshman Writing Seminars cannot be taken for CR/NC.

When an instructor allows a student to select a grading option, the student is required to indicate that choice by the fourth week of the semester.

The grade option cannot be changed after it has been submitted to the Registrar's Office. All letter grades, including D's, F's, NC's, UW's and W's, will be recorded on the student's permanent transcript.

When an instructor is unable to submit his or her grades by the time all grades are to be posted, then the Registrar will assign NG (no grade reported) to each student. The grade will be treated as an Incomplete for all purposes of evaluation.

The three grading options are:

## The Curriculum

| Grade Option I | (Grade points) | Grade Option II | Grade Option III |
| :---: | :---: | :---: | :---: |
| A | (4.00) |  |  |
| A - | (3.70) |  |  |
| B + | (3.30) |  |  |
| B | (3.00) |  |  |
| B - | (2.70) | CR | EV (*) |
| C + | (2.30) |  |  |
| C | (2.00) |  |  |
| C - | (1.70) |  |  |
| D | (1.00) |  |  |
| F | (0.00) | NC | (grades of D and F in |
| W(**) |  |  | courses taken for |
| UW(***) |  |  | Credit/No Credit will receive No Credit.) |

(*) Evaluation grades do not guarantee a passing grade or credit.
(**) Withdrawal
(***) Unauthorized Withdrawal

## Incomplete Grades Policy

At the discretion of the instructor, an Incomplete may be given only to students who have satisfactorily met all course requirements except for certain assigned work or final examinations that they were compelled to postpone for reasons of health or serious personal problems. Academic overload, outside employment, or improper management of time are not sufficient reasons for an Incomplete to be given. Further, if a student has missed a final examination or other assignment without prior notification and/or arrangements with the instructor, an Incomplete cannot be awarded.

Incomplete grades from a semester or a January course must be made up within the first 10 weeks of the following semester. Summer courses must be made up within the first 10 weeks of the fall semester. Failure to complete the work within the time allotted will result in the student receiving a Failure or No Credit for the course.

It is understood that there may be certain exceptions from the above guidelines. Prior approval for these exceptions must be obtained from the Registrar. The maximum time allowed for completion of a course, whether the student is enrolled or not, is one year from the date the Incomplete was incurred.

## Repeated Coursework Policy

A course may be repeated, but degree credit will be given only once (except for courses designated in this catalog as "may be repeated for credit"). The grade assigned for each enrollment shall be permanently recorded on the student's transcript. A course originally taken for a letter grade may not be repeated on a CR/NC basis. In computing the GPA of a student repeating a course, only the most recently earned grade shall be used.

## Special Course and Laboratory Fees Policy

Some courses have expenses associated with them that are not covered by regular tuition and fees, and in such cases the College may charge additional fees in amounts approximately equal to the added instructional or laboratory costs. Special charges may be made according to current costs for the following:
a. Courses requiring equipment, facilities or materials not available on campus, for science and certain field courses.

## The Curriculum

b. Courses requiring use of high technology equipment, e.g., computer courses.
c. Private instruction in music and similar arts.
d. Courses requiring field trips or travel.
e. Noncredit courses, conferences, workshops, postgraduate seminars and similar educational offerings.

## Concurrent Enrollment Policy

The purpose of concurrent enrollment is to allow currently enrolled students to take approved courses at other institutions and not lose their current enrollment status at Whittier College. A student must obtain a Concurrent Enrollment Form from the Office of the Registrar and have prior approval for all courses taken at another institution. Concurrent enrollment courses may not be used for the Liberal Education requirements. A student may not register for credit at Whittier College and elsewhere simultaneously without advance permission from the Registrar. Credit will not be guaranteed unless the Concurrent Enrollment Form is filed and approved prior to enrollment at the other institution. Credit will be awarded after an official transcript has been received and evaluated by the Office of the Registrar. Actual grades from other institutions will not transfer to Whittier College; only the credits will transfer.

## Withdrawal Policies

## Dropping Classes

With the approval of the advisor, students may drop classes during the first three weeks of a semester course.

## Withdrawing from Courses

Until the end of the sixth week of a semester course, students may withdraw from a course for any reason. After this period, withdrawals will be allowed only for reasons of health or serious personal problems. Academic difficulties or lack of interest in the course are not sufficient reason for late withdrawals.

Unauthorized Withdrawal from Courses
If, in an instructor's judgment (not the student's), a student has an excessive number of absences in a course, an instructor may recommend to the Associate Dean for Academic Affairs and the Registrar that the student be administratively withdrawn from the course. The student's record will show a mark of UW for the course. This policy is designed only for those students who have stopped coming to class and for whom there is insufficient course work to produce an earned grade. It is not to be used to allow students to withdraw from a class because they may not like the grade they have earned, nor is it a way for students to circumvent the processes for students to initiate a class withdrawal, as described in this catalog.

Withdrawing from the College
A withdrawal is generally requested when a student does not plan to return to Whittier College or plans to transfer to another school. A leave of absence is granted to a student who plans to return to Whittier within one academic year. Students who plan to do either must apply through the Advisement Office. Withdrawals will be recorded on the transcript as a W .

No withdrawals of any type will be granted during the last week of any course.

## Academic Support Programs and Services

## Bonnie Bell Wardman Library

The Bonnie Bell Wardman Library occupies a central position on campus. Its collections total 230,000 volumes and has seating for 400 readers and researchers. Library collections are available in open stacks, as are the 630 periodicals currently received with another 700 full text in electronic format. Wardman Library is a designated depository for both federal and state documents. First Search, Searchbank, Lexis Nexis, and Muse are some of the electronic databases available through the library.

## Ruth B. Shannon Center for the Performing Arts

Whittier College's Ruth B. Shannon Center for the Performing Arts, opened in the fall of 1990, accommodates drama, musical comedy, orchestral and choral performances, solo presentations, and oratory. The 28,000 square-foot facility houses a 400 -seat theatre, an intimate studio theatre, a scenic studio, costume construction shop, prop and costume storage, large group dressing rooms, and a green room, as well as a classroom and faculty offices.

## Computing and Telecommunication Services

Whittier College Computing and Telecommunication Services operate the Computer Center and other academic and administrative computing facilities around campus, providing consultation and educational programs on the use of available computer resources. Voice and data communication systems, including telephone service to the residence halls, and plans for future computing and communications requirements of the College community are also found at the Computer Center. Whittier College students have free access to all computing resources except printing, for which there is a nominal fee.

## The Norbert Erteszek Computer Center

The Norbert Erteszek Computer Center is located in the John Stauffer Science Building. Macintosh computers available for student use are networked into the main academic computing resources and provides access to a variety of educational software and a host of applications including full access to the Internet. Laser printing is available. A seminar room provides a location for workshops and occasional classroom use of the computers. Student workers, known internally as "elves," are selectively chosen to assist with the Center's operation.

## The Writing Center

The Writing Center, located in the basement of Hoover Hall, is the place to go for help with common problems in writing papers. Trained student tutors help visitors to the Center overcome writer's block, develop and support a persuasive thesis, organize ideas into clearly structured paragraphs, master grammar and punctuation, and revise a paper to communicate more clearly to its intended audience. The tutors can also help students learn to use the word-processing functions of the Writing Center's 12 Macintosh computers; several of these computers offer email and Internet access. Laserprinting is also available.

## The Clift Microcomputer Lab

The Clift Microcomputer Lab, located in Hoover Hall, provides students the opportunity to develop business-related skills. The lab contains both Macintosh and IBM compatible

## The Curriculum

computers available for student use. Students use software for numerical and word processing, statistical analysis, and general business applications. Access to the college's other computing resources, including the Internet, and laser printing are also available.

## The W. M. Keck Foundation Image Processing Laboratory

The W. M. Keck Foundation Image Processing Laboratory, located on the second floor of the Stauffer Science Building, is a facility for the analysis of all types of digital images, including remotely sensed data from Earth-observing satellites, interplanetary spacecraft, and medical scanners. Geographical information system software for the integration of spatial data provides a link between maps, aerial photographs, and remotely sensed data. The primary baseline data for the laboratory is the Fairchild Aerial Photography Collection; acquired during the period 1927-1964, these photographs compose one of the largest libraries of photographic images in the United States. The laboratory computer system is based on DEC Station 5000/200 UNIX-based workstations.

## The Math Lab

The Mathematics Department operates a Math Lab across from the Computer Center in the Science Building. The facility contains Macintosh computers and a variety of math software to be used as instructional aids. Students in freshman calculus classes make extensive use of this facility. Tutoring in math also is available during scheduled times of the day.

## Departmental Computing

Most academic departments utilize microcomputers as a component of their instructional process; many of these applications are quite sophisticated. For example, all natural science departments and the Psychology Department use computers in the student laboratories for data collection and analysis. The Art Department offers instruction on computer-assisted graphic design using Macintosh computers and access to more than 50,000 works of art using hypermedia-controlled videodisks. The Music Department has a Macintosh MIDI synthesizer used for instruction on and composition of music. In general, Whittier College students can expect to find modern computing technology applied, where appropriate, throughout the academic curriculum.

## Media Center

Located in Platner Hall, the Media Center furnishes the College with a wide range of audio-visual services. In addition to providing equipment for instructional purposes, cultural events, and athletic contests, the Center houses an extensive software library of audio tapes, video tapes, and films. Photography, sound, and synchronized slide programs also can be readily produced in the Center's facilities. Along with a darkroom and audio booth, the Media Center houses a color television studio and sophisticated editing bay. It offers faculty and students the opportunities to produce diverse programming such as individual video projects and local documentaries.

## The Broadoaks School

The Broadoaks School was founded in 1906 as an open-air kindergarten and primary school. Today, the nationally recognized laboratory/demonstration school serves two interrelated purposes: to provide outstanding educational and childcare services to children and their families; and to provide Whittier College students and faculty with a

## The Curriculum

rich variety of opportunities for studying children, family relationships, and developmentally appropriate approaches to education.

The preschool and elementary-grade curriculum emphasizes active, self-initiated learning, critical thinking, problem solving, intercultural understanding, and shared responsibility. Both undergraduate and graduate students work directly with children under clinical supervision by mentor teachers. College students also participate actively in instructional planning and evaluation, as well as in interdisciplinary case conferences, child assessment, and a variety of related professional organizations and activities.

Broadoaks offers professional development programs for teachers and administrators throughout California. Through special funding, The Broadoaks School provides a few highly selective graduate and undergraduate teaching fellowships each year. Undergraduate Broadoaks Teaching Fellows usually work as a member of the school's instructional team a few hours each week. Graduate Teaching Fellows may teach from a few hours each week to full time. Additional information is available through the Broadoaks office.

## The Center of Mexican-American Affairs

The mission of the Center is to serve as a support program for the College's Hispanic students.

To help meet the needs of Hispanic students, the Center supports educational, cultural, and recognition programs including the annual "Tardeada;" the Hispanic Graduates Reception; the "Big Brother/Big Sister" Program; the Hispanic Students Recruitment Project; the annual "Alianza de Los Amigos" (the Hispanic alumni organization) scholarship fund-raising banquets; Hispanic students recruitment project; and other related events and activities. Adjunct groups to the Center include the Hispanic Students Association, the Hispanic Parents Advisory Council, "Alianza de Los Amigos," the Business-Industry Resources Advisory Council, and the Corporate Sponsors Group.

## The Lautrup-Ball Cinema

This newly renovated room serves the College primarily as a teaching space, but also houses the two film series which take place on campus each year. The room contains 145 comfortable theater style seats with convenient "swing up" writing surfaces. In addition to projecting slides and 16 mm films, instructors can project media in all formats (including videotape, computer applications, "Elmo" visual presentations, etc.) on a large screen via a ceiling mounted LCD projector. The small stage area makes this location ideal for presenting guest lecturers and chamber music.

## The GTE Language Resource Center

This digital audio/video/computer lab supports the courses offered by the Department of Modern Languages and Literatures. The lab can accommodate up to 40 students working at 14 separate work stations which are all networked via a master Instructor's console/server. Language professors can monitor the progress of individual students in the Lab as they work through exercises "etched" on CD ROM. Among other activities, students master language pronunciation, view digitally prepared video, and discover aspects of various cultures via the internet.

## Courses of Study

Division of Humanities<br>Department of Art and Art History<br>Department of English Language and Literature<br>Department of History<br>Department of Modern Languages and Literatures<br>Department of Music<br>Department of Philosophy<br>Department of Religious Studies<br>Department of Theatre Arts and Communication<br>Division of Natural Sciences<br>Department of Biology<br>Department of Chemistry<br>Department of Earth and Environmental Science<br>Department of Mathematics<br>Department of Physics<br>Division of Social Sciences<br>Department of Business Administration<br>Department of Economics<br>Department of Education and Child Development<br>Department of Physical Education and Recreation<br>Department of Political Science<br>Department of Psychology<br>Department of Sociology, Anthropology and Social Work

## Course Numbering

1-9 .Courses for which no college credit is offered 10-69 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Experiential courses 70-99 . .Courses which may not be counted toward the major in the discipline of origin 90, 190, 290, 390, 490, 590 . . . . . . . . . . . . . . . . . . . . . . . . . . . . Selected topics courses 295, 395, 495, 595 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Directed studies 100-199 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Generally appropriate for freshmen 200-299 . . . . . . . . . . . . . . . . . . . . .Generally appropriate for freshmen and sophomores 300-399 . . . . . . . . . . . . . . . .Generally appropriate for sophomores, juniors, and seniors 400-499 . . . . . . . . . . . Generally appropriate for juniors, seniors and graduate students. 500-599 Graduate courses
The groups listed above are general guidelines, but they may not be accurate descriptions for all courses in all departments. The sections of the catalog devoted to individual departments provide more precise information.

Numbers in parentheses in this catalog indicate the former number of the course.
The letters A, B, C, D, E, F following the course number indicate courses are sequential. Each course in the sequence, or academic background equivalent to that course, is normally a prerequisite to the next course. S preceding the number indicates a summer session offering. X preceding the number indicates an Extended Education course (evening course).

## Art \& Art History

Ria O'Foghludha
Endi Poskovic
Paula Radisich
Kim Russo
David Sloan, Chair
he study of art is increasingly valuable as contemporary society becomes ever more visual in its orientation. Making art and studying its history are complementary pursuits; the knowledge and skill gained in one supports achievement in the other.

Students majoring in art take a program that emphasizes either the history of art or studio art. Students emphasizing art history should have meaningful exposure to studio art, and those focusing on studio art need a strong foundation in art history.

Art history is different from other historical disciplines in that it is founded on the primacy of objects that are both concretely present and yet artifacts of history. Art history courses concentrate on painting, sculpture, and architecture, all forms defined as fine arts.

Because the basic unit of art historical analysis is the visual experience, art historical study strengthens one's powers of observation and the ability to use those observations as a point of departure for critical thought.

Courses in art history are designed to utilize local art collections, including those at the J. Paul Getty Museum, the Norton Simon Museum, the Huntington Library, the Los Angeles County Museum of Art, and the Museum of Contemporary Art.

For non-majors, art history studies provide a standard of aesthetic appreciation and an awareness of past and present achievements in the visual arts. With additional study at the graduate level, art history can lead to professional careers in college teaching, museum curatorship, fine arts librarianship, and publishing.

Studio art courses focus upon the materials, methods, and forms most commonly used by contemporary artists. Students are guided toward mastery of technique and expression of ideas.

Articulation of personal experience and visual ideas in drawing, painting, printmaking, ceramics, and sculpture is approached as a process of facilitating informed choices by student artists.

The faculty recognizes and encourages individual differences by working with students primarily on an individual basis, emphasizing the need to cultivate selfevaluation. The faculty seek to stimulate students' ability to think, express themselves, and appreciate life creatively.

## Guidelines for a Major in Art

A minimum of 39 credits of which 18 must be at the 300 level or above.
Courses Required:
Introduction to Art 2-D, ART 100, 3 credits
Introduction to Art 3-D, ART 101, 3 credits
History of Western Art 1, ART 205, 3 credits
History of Western Art 2, ART 206, 3 credits
Drawing 1, ART 210, 3 credits
Painting 1, ART 222, 3 credits
Sculpture 1, ART 252, 3 credits
Age of Dada and Surrealism, ART 369, 3 credits
Students electing to major in art may design their program with either of two foci: (1) Art History, emphasizing visual analysis of art works and understanding of stylistic development or (2) Studio Art, stressing problem solving and development of skills and techniques necessary for effective visual communication. Ordinarily, a student majoring in art with an emphasis in studio art will select a concentration of three semesters in drawing, painting, sculpture, ceramics, or printmaking.

Students are encouraged to make integrative connections between their visual studies and related areas in natural science, humanities, and the social sciences. They are also expected to attend Mendenhall Gallery exhibitions.

## Interdisciplinary Major:

The department participates in an interdisciplinary major in Art History and Philosophy. See Applied Philosophy under the Philosophy department.

## Guidelines for a Minor in Art

Required for a minor are 21 credits including 100 or 101, 205, 206, 202, 222 or 252 , 369 , and at least one upper-division course chosen in consultation with a department faculty advisor.

## Course Descriptions

## Art History <br> 205 History of Western Art I

Surveys art beginning with the Paleolithic age through the ancient civilizations of Mesopotamia, Egypt, Greece, Rome, Medieval Europe, and Byzantium up to the early Renaissance. Stresses cultural context and style. One semester, 3 credits.

## 206 History of Western Art II

Surveys the visual arts of Europe from the Renaissance to the present. One semester, 3 credits.

## 207* Women and the Visual Arts

Historically oriented examination of women artists from the Renaissance through the

Modern periods, followed by an exploration of theoretical issues involving women and representation. One semester, 3 credits.

361* Art of Ancient Greece and Rome
Examines the visual arts of ancient Greece and Rome. One semester, 3 credits.

## 362* Art of the Medieval West

Surveys art and architecture of Western Europe from the Early Christian period to the beginnings of the Renaissance. One semester, 3 credits.

## 363* Early Renaissance Art in Italy

Explores painting, sculpture, and architecture in Italy, especially in Florence and Siena, from the thirteenth through the fifteenth centuries;
emphasis will be on cultural and historical context. One semester, 3 credits

## 364* The High Renaissance and Mannerism

Art and architecture in Florence, Rome, and Venice in the later fifteenth and sixteenth centuries, with special attention to the works of Leonardo, Michelangelo, Raphael, and Titian. One semester, 3 credits.

## 366* Art of the Eighteenth Century

Explores the painting, sculpture, architecture and decorative arts in France, Great Britain, Spain, Germany and Italy from approximately 1700 to 1800 . One semester, 3 credits.

## 367* Age of Romanticism

Explores the visual arts in Europe and America during the first half of the 19th century in light of the changes wrought by industrialization and revolution. One semester, 3 credits.

## 368* Age of Impressionism

Explores the visual arts in Paris during the last half of the 19th century from the perspective of modernism, asking how and why the painting of modern life, practiced by Manta, Degas, and the Impressionists, became transformed into the Symbolism of Gauguin and Van Gogh. One semester, 3 credits.

## 369* Age of Dada and Surrealism

Explores the visual arts during the first half of the 20th century, concentrating on Dada and Surrealism and its antecedents such as Cubism, Futurism, and Suprematism. The relation of these movements to World War I, the rise of Fascism, and World War II will be examined. One semester, 3 credits.

## 370* Contemporary Art

Explores the visual arts since 1950, with special emphasis on recent developments. One semester, 3 credits.

## 380* (307) Visual Arts of India

Provides a broad historical survey of Indian art, beginning with Indus Valley culture and ending with Rajput painting in the 18th century. Emphasizes the religious traditions to which the objects are connected. One semester, 3 credits.

## 381* Art of Mexico

Surveys the art of Mesoamerica and Mexico from the time of the Olmecs to the twentieth century. One semester, 3 credits.

## 391* Seminar

Explores an art historical topic from the Ancient, Medieval, or Renaissance periods. Topics will vary; the seminar may be repeated for credit whenever the topic changes.
Permission. One semester, 3 credits.

## 392* Seminar in Modern Art

Explores selected substantive and methodological problems in art history of the Modern period. Topics may be drawn from the seventeenth, eighteenth, nineteenth or twentieth centuries. May be repeated for credit whenever the topic changes. Permission. One semester, 3 credits.

## Studio Art

## 50 Art Seminar

A course for art majors and minors. Preparation of a resume, artist's statement, slides, and other documentation of work. Exploration of graduate programs and exhibition opportunities. May be repeated for credit. One semester, 1 credit.

## 51 Art Practicum

Work directly on a professional art project or installation that is being created by an art professor or visiting artist. Projects vary. Contact the art department for information on this semester's project. May be repeated for credit. One semester, 1 credit.

## 52 Festival Preparation

Participate in the preparation of an art festival or event on campus. Mask making, costumes, gallery preparation, and festival design may be included. Contact the art department for information about this semester's event. May be repeated for credit. One semester, 1 credit.

## 53 Looking at Art

Visit art museums and galleries in the Los Angeles area. Each visit is followed by a discussion. May be repeated for credit. One semester, 1 credit.

## 54 Life Drawing

An informal opportunity for students with previous experience to draw the clothed and nude human form. May be repeated for credit. One semester, 1 credit.

## 100 Introduction to Art 2-D

Explores a variety of processes for creating twodimensional images, using materials and techniques such as drawing, painting, collage, simple printmaking, and mixed media. Emphasis will be on understanding how basic visual elements (line, shape, form, space, color, and texture) are used in contemporary art. Color theory will be included. One semester, 3 credits.

## 101 Introduction to Art 3-D

Explores a variety of processes for creating three-dimensional objects, using materials and techniques such as plaster, wood, clay and mixed media. Effective use of the qualities of line, shape, form, mass, and texture will be emphasized in making sculptural creations. One semester, 3 credits.

## 210 Drawing I

Course designed for beginning art majors and non-art majors (those students who wish to learn the fundamentals of drawing). Many operative aspects of drawing and principles of design are presented. Emphasis is placed on analytical study of composition, space, proportions, line, value and texture, etc. Upon completing this course, the student should have a solid practical knowledge of various drawing techniques. May be repeated for credit. One semester, 3 credits.

## 217,* 317 Painting Workshop

Drawing and painting with emphasis on color, design and pictorial expression. Subjects for projects will vary. May travel to do landscape paintings. May be repeated for credit.
Permission. January session, 4 credits.

## 218,* 318 Drawing Workshop

An Intensive 4 week long workshop in which the student is presented with a variety of drawing techniques, such as wet and dry media. Gesture drawing, collage, gouache, etc. are explored. In the beginning, the emphasis is placed on the fundamental principles of design and the operative aspects of drawing. As the course of study develops, stress is placed on more nontraditional, and experimental drawing approaches. Work from the model will be possible for those interested in figurative expression. May be repeated for credit. Permission. January, 4 credits.

## 219,* 319 Ceramic Sculpture Workshop

Clay sculpture. Problems designed with hand forming methods to techniques of clay
construction and design with emphasis on the basics of sculpture. May be repeated for credit. Permission. January session, 4 credits.

## 220,* 320 Sculpture Workshop

Explores the properties and primary working methods of plaster casting the human form with emphasis on the basics of sculpture. The individual develops sculptural expression with attention to visual properties and qualities of content. May be repeated for credit. Permission. January session, 4 credits.

## 222, 323 Painting I, II

Acrylic or oil painting and related media as vehicles for creative expression. Structural, spatial, and symbolic uses of color are explored. May be repeated for credit. Prerequisite: 100 or 210. One semester, 3 credits.

## 232 Ceramics I

Problems designed to take the student from hand forming methods to basic techniques of clay construction and design. While not a prerequisite, it is advised that ART 101 be taken first. May be repeated for credit. One semester, 3 credits.

## 242 Printmaking I

The initial study of basic processes of preparing and printing the inked surfaces of metal, wood, and linoleum plates, as well as, other intaglio and relief printing surfaces. The student is presented with a variety of techniques, proper and safe use of the shop equipment and tools, and the basic aspects of preserving, collecting and curating prints as fine art. The student has first hand, i.e. methodical, experience in engraving, dry point, line etching, aquatint, soft ground, lift ground, linoleum-cut, wood cut, and other basic mixed intaglio and relief processes. May be repeated for credit. Prerequisite: 100. One semester, 3 credits.

## 252, 353 Sculpture I, II

Using techniques of wood construction, welding, assemblage and modeling the individual develops sculptural expression with attention to visual properties, spatial organization and qualities of content. May be repeated for credit. Prerequisite: 101. One semester, 3 credits.

## Art \& Art History

## 310 Figure Drawing

Introduction to figure drawing with awareness of the human body's basic structure and form (skeletal structure, sub-surface anatomy, and surface anatomy). Emphasis is placed on development of perceptual awareness of the human figure through appropriate exercises. Concepts and principles from Drawing I, with an emphasis on the human figure, are explored. May be repeated for credit. Prerequisite: 210. One semester, 3 credits.

## 311* Special Projects in Drawing

A continuation of the objectives of Art 101 and 310. The student is expected to integrate conceptual and aesthetic concerns with a serious exploration of the medium's potential. May be repeated for credit. Prerequisite: 100 and 210. Permission. One semester, 3 credits.

## 316* Watercolor

Exploration of watercolor as a medium for creative expression. Structural, spatial, and symbolic uses of color are explored.
Experimentation with other media in combination with watercolor. May be repeated for credit. Prerequisites: 100 and 210. One semester, 3 credits.

## 324* Special Projects in Painting

A continuation of the objectives of Art 100 and 222. The student is expected to integrate conceptual and aesthetic concerns with a serious exploration of the medium's potential. May be repeated for credit. Prerequisite: 222 and 323. Permission. One semester, 3 credits.

## 333 Ceramics II

Problems designed to take the student from hand forming methods to throwing on the wheel, basic techniques of clay construction and design. May be repeated for credit. Prerequisite: 232. One semester, 3 credits.

## 334* Special Projects in Ceramics

Experimentation with glazes, materials, and colorants. Problems in clay designed to meet individual needs. May be repeated for credit. Prerequisite: 232 and 333. Permission. One semester, 3 credits.

## 343* Special Projects in Printmaking

A continuation of the objectives of 242. The student is expected to integrate conceptual and aesthetic concerns with a serious exploration of the medium's potential. Student is presented with a variety of new techniques, and directions in contemporary printmaking. May be repeated for credit. Prerequisite: 100 and 242. Permission. One semester, 3 credits.

## 354* Special Projects in Sculpture

Advanced work in sculpture. Further exploration and refinement of personal style and content. Projects designed to meet individual needs. Prerequisite: Art 101 and 252. One semester, 3 credits.

## 390, 490 Selected Topics in Art

Designed for the advanced student. Provides for the development and completion of a special project. One semester, 2-3 credits.

NOTE: Students enrolling in Studio Art classes are charged a materials fee that typically ranges between $\$ 30$ and $\$ 100$.

## Independent Study

## 395, 495 Directed Studies

Credit and time arranged. Permission. May be repeated for credit.

## Asian Studies

Paul Kjellberg (Philosophy), Chair
Zhidong Hao (Sociology)
Robert Marks (History)
Feng-Ying Ming (Chinese Language and Literature)
Glenn Yocum (Religious Studies)

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sian Studies allows an interdisciplinary approach to the study of one or more regions or countries of Asia. Because of the importance of Asian economies, politics, religions, and strategic concerns to both the United States and the rest of the world, a major or a minor in Asian Studies is appropriate for those students who are interested in exploring the histories, cultures, and languages of Asian societies and who plan to pursue careers in government, NGOs, international business, law, or journalism, to mention just a few. The program includes an overview of the history and culture of Asian countries and additional coursework in four other areas, the development of Asian language abilities, study abroad in an Asian country, and an internship or a capstone senior project. Students choosing the Asian Studies major or minor are encouraged to major or minor in one of the participating disciplines.

## Requirements for the Asian Studies Major

The interdisciplinary major in Asian Studies consists of a minimum of 30 credits and a maximum of 60 credits, distributed as follows, including a study abroad experience:
I. Introductory courses ( 6 credits):

East Asian Civilizations, HIST 220, 3 credits
Religions of the World, REL 202, 3 credits
II. Elective coursework ( 12 credits). At least 3 credits from each thematic field; courses from at least three disciplines; no more than 6 credits from any one discipline.
A. Historical Studies

Imperial China, HIST 321, 3 credits
Modern China, HIST 323, 3 credits
Communist China, HIST 325, 3 credits
Modern Japan, HIST 329, 3 credits
Modern India, HIST 3xx, 3 credits
B. Politics, Economics, and Society

Peoples of the World, ANTH 210, 3 credits
East Asian Political Systems, PLSC 348, 3 credits
Southeast Asian Politics, PLSC 349, 3 credits
Sociology of Development, SOC 357, 3 credits
Social Class and Inequality, SOC 352, 3 credits
C. Cultural Systems

Chinese Cinema, CHIN 125/325, 3 credits
Topics in Traditional Chinese Lit, CHIN 150/350, 3 credits
Topics in Modern Chinese Lit, CHIN 151/351, 3 credits
East Asian Lit, ENGL 270, 3 credits

Third World Novels (India), ENGL 350, 3 credits
Early Chinese Philosophy, PHIL 300, 3 credits
Dev of Buddhist Phil, PHIL 302, 3 credits
Heroes, Gods, and Gurus, REL 313, 3 credits
Buddha and Buddhism, REL 330, 3 credits
Hindu Religion and Culture, REL 333, 3 credits
D. Asia, the Pacific Rim, and Asian Diasporas

Asian American Literature, ENGL 347, 3-4 credits
American Foreign Policy in Southeast Asia (Jan term), PLSC 290, 3 credits
Southeast Asian Politics (also listed under B), PLSC 349, 3 credits
Problems and Policies in Contemporary Politics (with instructor approval;
depends on topic), PLSC 225, 4 credits
Asians in America, SOC 388, 3-4 credits
III. One methods course chosen from the following ( 3 credits), taken prior to study abroad:

Field Research, ANTH 311, 3-4 credits
Critical Procedures, ENGL 400, 3 credits
Historical Methods, HIST 380, 3 credits
Approaches to the Study of Religion, REL 361, 3 credits
Approaches to Social Research, SOC 310, 3 credits
IV. Proficiency in an Asian language, however attained, defined as intermediate college level (i.e. the equivalent of two years of Whittier College Modern Languages department coursework). Asian languages other than those taught at Whittier (e.g. Vietnamese or Tagalog) would be acceptable so long as they are relevant to the student's senior project and study abroad; proficiency in these languages will be determined by the program faculty on an ad hoc basis.
V. Study abroad for one semester (or two January terms) in China, Japan, or India through one of Whittier College's programs. With prior approval of the advisor and the College Registrar, coursework completed abroad may count toward the Asian Studies major, college-wide requirements, and graduation. Study abroad is to be preceded by a one-credit preparatory seminar (Asian Studies 90), and to be followed by a one-credit debriefing seminar (Asian Studies 91)
VI. Capstone project, paper, or internship (4 credits), relevant to the "theme" being studied, completed in the senior year, and supervised by the student's advisor and approved by one other member of the faculty advisory board. Asian Studies 400.

## Requirements for an Asian Studies Minor (18 credits)

The two introductory courses, plus a minimum of 12 credits from the elective courses (one from each of the four sub areas).

## Biology

David Bourgaize, The Fletcher Jones Professor of Molecular Genetics, Chair
Stephen R. Goldberg, The Roy E. and Marie G. Campbell Professor of Biology
A. Warren Hanson

Clifton Morris, The James Irvine Foundation Professor of Biology
Cheryl Swift

iologists investigate a phenomenon that even philosophers have difficulty defining-the concept of "LIFE." As mysterious as it is, life manifests itself in numerous ways and with many layers of complexity. From nonliving molecules, life "emerges" at the cellular level, is amplified into the organismal level and transcends into species interactive at the population level.

The Biology faculty believes that a challenging academic curriculum coupled with personal, one to one, student-faculty interaction foster the most appropriate environment for success: majors who enter as students of science progress to the level of "student scientists."

Our curriculum is based upon acquiring an understanding of life from many vantage points, especially those inherent in the three major levels of organization: molecularcellular, organismal, and population-ecological.

## Guidelines for a Major in Biology

Life is a wonderfully complex phenomenon organized on many levels. Biology is unique among the sciences in the broad range of sub-disciplines necessary to understand the entire field. Each perspective adds a valuable voice to the constant "dialogue" between experimenter and living organisms.

The faculty believes that, to become knowledgeable investigators (and appreciators) of the life phenomenon, biology majors should be acquainted with the various experimental approaches and the concepts gained therefrom. These sub-disciplines range from the molecular-cellular level of organization, with intensive laboratory experience, to understanding organisms, and to populations, with emphasis on communities.

The course selections for the major reflect those sub-disciplines and approaches to biology.

Completion of a minimum of 36 credits in Biology, with the following provisions:

1) Completion of four foundation courses:

Life Science, BIOL 195, 4 credits
followed by (in any order)
Plant Form and Function, BIOL 205, 4 credits
Animal Form and Function, BIOL 210, 4 credits
Biological Information, BIOL 215, 4 credits
2) Completion of at least 20 credits in Biology at the 300 level or above.
3) Completion of one course from each of the following organizational levels (Note: courses listed in multiple categories can only be counted in one of the categories):
A. Cellular-Molecular-a study of cell structure and molecular-controlled functions Mycology, BIOL 305, 4 credits

Microtechnique, BIOL 320, 4 credits Immunology, BIOL 3313 credits Microbiology, BIOL 343, 4 credits Cell Physiology, BIOL 380, 4 credits
Molecular Genetics, BIOL 381, 4 credits
Developmental Biology, BIOL 404, 4 credits
Animal Histology, BIOL 407, 4 credits
B. Organismal-a study of the organism, the congruence of form and function, and the maintenance of its internal environment.
Human Physiology and Anatomy, BIOL 300A,B, 4 credits each
Invertebrate Zoology, BIOL 340, 3 credits
Parasitology, BIOL 346, 3 credits
Herpetology, BIOL 360, 4 credits
Animal Behavior, BIOL 385, 4 credits
Entomology, BIOL 386, 4 credits
Field Ornithology, BIOL 388, 4 credits
Developmental Biology, BIOL 404, 4 credits
Animal Physiology, BIOL 428, 4 credits
Field Botany, BIOL 473, 4 credits
Field Zoology, BIOL, 481, 4 credits
C. Populations-a study of the interaction of organisms with each other, with the external environment, and the changes that occur through time.
Conservation Biology, BIOL 379, 4 credits
Marine Biology, BIOL 384, 4 credits
Animal Behavior, BIOL 385, 4 credits
Entomology, BIOL 386, 4 credits
Evolutionary Biology, BIOL 445, 4 credits
Field Botany, BIOL 473, 4 credits
Field Zoology, BIOL 481, 4 credits
Advanced Field Studies, BIOL 485, 4 credits
Herpetology, BIOL 360, 4 credits
4) Completion of CHEM $261 \mathrm{~A}, \mathrm{~B}$ and one year of college mathematics.

For majors seriously considering graduate or professional schools, Organic Chemistry, Biochemistry, Physics, and Calculus are imperative (these courses are required by many graduate and professional schools).

## Guidelines for a Minor in Biology

Sixteen credits of core courses, BIOL 195, BIOL 205, BIOL 210, BIOL 215, and at least one additional course at the 300-level or above.

## Course Descriptions

## 100 General Biology

An introductory laboratory science course that concentrates on basic scientific investigation, with a particular emphasis on living organisms. One semester, 4 credits.

135* The Natural History of Southern California
A study of the flora and fauna of Southern California plant communities. Field trips will include desert, chaparral, coastal sage, dune and beach, forest and mountain communities. Lectures, laboratories and field trips. One semester, 4 credits.

## 195 Life Science

All living things need to solve certain
fundamental problems if they are to stay alive.
This course will focus on the basic organization of life, particularly at the cellular level, and address ways that the structure of different organisms allows them to solve these problems. One semester, 4 credits.

## 205 Plant Form and Function

Primarily for Biology majors. An in-depth study of the classification, morphology, structure, physiology and ecology of major plant groups. Lectures, laboratories and field work.
Prerequisite: 195. One semester, 4 credits.

## 210 Animal Form and Function

Primarily for Biology majors. An in-depth study of the classification, morphology, structure, physiology and ecology of invertebrates and vertebrates. Lectures and laboratories (some dissection required). Prerequisite: 195. One semester, 4 credits.

## 215 Biological Information

Primarily for Biology majors. An in-depth study of how biological information is stored and used by cells. The structure and organization of genes, principles of heredity, basic recombinant DNA techniques, population genetics, and evolution will all be considered. Lectures and laboratories. Prerequisite: 195. One semester, 4 credits.

## 260 Introductory Human Anatomy and Physiology

The structure and function of the human body. Intended for non-majors. 3 credits.

## 300 A,B Human Physiology and Anatomy:

Structure and Function of the Human Body
The structure of the human body as an integrated whole, and the functions of the various organ systems that compose it. Emphasis on how structure relates to function. Includes detailed dissection. Lectures and laboratories. Two semesters, 4 credits each.

## 305* Mycology

Fungi; their role in the ecosystem, influence upon human society, lifestyle and unique physiology; stresses medical and economic aspects. Lectures and laboratory. Prerequisite: 205. January, 4 credits.

## 320* Microtechnique

A laboratory course in which students learn to prepare and stain histology slides for light microscopic examination. One semester, 4 credits.

## 331* Immunology

Nature and production of antibodies, their interactions with antigens, and their role in human defense against disease. Lectures and demonstrations. Prerequisite: 215. One semester, 3 credits.

## 340* Invertebrate Zoology

Survey of the major groups of invertebrate animals with emphasis on their systematics, comparative morphology, and phylogeny. Lecture, laboratory, and field work. Prerequisite: 210. One semester, 3 credits.

## 343 Microbiology

Principles of the culture, physiology, and control of microorganisms with emphasis on medical bacteriology. Lectures and laboratory.
Prerequisites: 215, CHEM 331 (may be taken concurrently). One semester, 4 credits.

## 346* Parasitology

Animal parasites with special reference to the common parasites of humans. Lectures and laboratories (some dissection required).
Prerequisite: 210. One semester, 3 credits.

## 360 Herpetology

The ecology, taxonomy, and behavior of amphibians and reptiles. Lectures, laboratories and field work (some dissection required). January, 4 credits.

## 379* Conservation Biology

Conservation biology deals with the study of preserving biodiversity. Topics to be covered include the effects of habitat fragmentation on populations, reserve design, the effect of fragmentation on levels of diversity, and issues surrounding the problem of maintaining genetic diversity. Lectures and field work. Prerequisites: 205, 210. One semester, 4 credits.

## 380* Cell Physiology

Biochemical approach to the understanding of cellular functions with emphasis on the interactions of biochemical pathways and their importance. Lectures and seminars. Prerequisite 215 . One semester, 4 credits.

## 381 Molecular Genetics

In-depth study of how genetic information is stored and utilized by cells, including DNA replication, transcription and translation, and the control of gene expression. Emphasis will be split between prokaryotic and eukaryotic cells. Prerequisite: 215 . One semester, 4 credits.

## 384 Marine Biology

The physical, chemical, and biological aspects of the marine environment; emphasizes factors affecting the distribution and abundance of marine organisms. One semester, 4 credits.

## 385* Animal Behavior

Diverse types of behavior exhibited by animals. Lectures and laboratories. Prerequisite: 210. One semester, 4 credits.

## 386* Entomology

Morphology, physiology, ecology, and the behavior of insects. Taxonomy and collection of the common insect families is emphasized.
Lectures, laboratories and field work (some dissection required). Prerequisite: 210. One semester, 4 credits.

## 388* Field Ornithology

The structure and habits of birds; trains students to identify birds in the field. Lectures, laboratories, and field trips. January, 4 credits.

## 404 Developmental Biology

The processes that allow a single cell to develop into an entire organism will be explored. Topics will include classical embryology, control of development at the cellular and molecular level,
and mechanisms of differentiation. Extensive laboratory work included. Prerequisite: 215. January, 4 credits.

## 407 Animal Histology

Study of the structure and function of animal tissue. Comparisons of normal and pathological tissues are made. Lectures and laboratory. Prerequisite: 210. One semester, 4 credits.

## 428* Animal Physiology

The comparative function of organ systems in representative animal types, including humans. Lectures and laboratories. Prerequisite: 210. One semester, 4 credits.

## 445* Evolutionary Biology

Examination of the mechanisms of microevolutionary and macroevolutionary change. Lecture and laboratory. Prerequisites: 205, 210. One semester, 4 credits.

## 473* Field Botany

Taxonomic and ecological study of native plants. Lectures, laboratory, and field work. Permission. Prerequisite: 205. One semester, 4 credits.

## 481 Field Zoology

The speciation and ecology of common invertebrate (exclusive of insects) and vertebrate fauna (some dissection required). Prerequisite: 210. One semester, 4 credits.

## 485 Advanced Field Studies

Variable Credits. Permission.

## 490 Current Topics in Biology

Variable credits. Permission. May be repeated for credit.

## 493 Seminar

Discussion of current biological research. May include student oral presentations. Time arranged. Permission. May be repeated for credit. One semester, l credit.

## 495 Independent Study

Variable credits. Permission. May be repeated for credit.

## 496 Undergraduate Research

Variable credits. Permission. May be repeated for credit.

## Business Administration

Jeffrey N. Decker
Mary Casey Finan
Charles R. Laine
John H. Neu, affiliate
Haw-Jan Wu, Chair

rhe B.A. in Business Administration develops, in a liberal arts environment, the student's conceptual knowledge and professional management skills necessary for success in the ever-changing business environment. The specific aim of the program is to prepare students for management and staff positions in profit-oriented and non-profit organizations.

The major provides a broad overview of the various sub-disciplines within business administration. For business administration majors wishing to receive more in-depth knowledge in one of the functional areas of business, the department offers the opportunity to pursue a concentration in each of the following: accounting, finance, international business, management, and marketing.

The department also participates in the Mathematics-Business interdisciplinary major.
The department highly recommends study abroad, and participates in the Denmark International Studies International Business program wherein students study in Copenhagen for one semester.

## Guidelines for a Major in Business Administration

A minimum of 36 credits in Business Administration, of which 24 credits must be at the 300 level or above.
Courses Required:
Business and Society, BSAD 130, 3 credits
Principles of Accounting I, II, BSAD 201, 202, 6 credits
Business Law, BSAD 231, 3 credits
Business Finance I, BSAD 310, 3 credits
Marketing Principles, BSAD 320, 3 credits
Management and Organizational Behavior, BSAD 330, 3 credits
Management Information Systems, BSAD 341, 3 credits
Operations Management, BSAD 342, 3 credits
Management Strategy and Policy, BSAD 489, 3 credits
Choice of either:
Six credits of upper-division electives in Business Administration, or
For students choosing to earn an optional concentration in Accounting, Finance,
International Business, Management or Marketing:
Nine credits in the chosen area of concentration beyond those required courses specified above.
These courses must be selected with the department's approval, with at least six credits being 300 -level or 400 -level BSAD courses. If appropriate, one of the three courses may be a BSAD course below the 300 level or a non-BSAD course.

Statistics, MATH 80, 3 credits
Choice of either:
Mathematics for the Management Sciences, MATH 81, 3 credits or
Integrated Precalculus/Calculus, MATH 139A,B, 7 credits or
Calculus and Analytic Geometry I, MATH 141A, 4 credits
Principles of Economics I, II, ECON 200, 201, 6 credits
One upper division economics course
Choice of one:
Introduction to Literature, ENGL 160, 3 credits
Advanced College Writing, ENGL 301, 3 credits
Dynamics of Organizational Communication, BSAD 232, 3 credits
Communication Strategies, BSAD 233, 4 credits
Basic Oral Communication, THEA 101, 3 credits
One course in ethics highly recommended.
Study abroad is also highly recommended.

## Guidelines for a Minor in Business Administration

A minor in Business Administration requires 21 credits, including 201, 202, 231, 310, 320,330 and one other upper-division course.

## Course Descriptions

## Accounting

201, 202 Principles of Accounting I, II
Accounting concepts and techniques essential to business administration; accounting as a process of measurement and communicating economics information; analyzing, recording, and interpreting financial transactions and statements; manufacturing accounts and reports; interaction of accounting with finance, quantitative methods, and data information systems. One semester, 3 credits each.

## 306 Managerial Accounting

A study of the concepts and techniques used by management for planning, controlling, and decision making. Includes the use of standard costs and flexible budgets; cost reports; cost-volume-profit relationships; and performance evaluation. Prerequisites: 201 and 202. One semester, 3 credits.

## 307 Federal Tax Accounting

Fundamentals of federal income taxation; emphasis on taxation of individual income. Prerequisites: 201 and 202. One semester, 3 credits.

## Finance

212 Financial Institutions
The role of financial institutions in our nation's financial markets and the economy; analysis of various types of financial institutions with an emphasis on differentiating functions and practices. Some field trips and guest speakers. Prerequisite: 130 or permission. January, 4 credits.

310 Business Finance I
Introduction to financial management, its concepts, and institutions; time value of money; bond and stock valuation; risk; financial statement analysis and financial forecasting; capital budgeting; long-term financing decisions; working capital management; international financial management. Prerequisites: 201, 202. MATH 80 and either MATH 81, 139A,B, or 141A recommended. One semester, 3 credits.

## 411* Business Finance II

Case studies of topics from 310; study of additional topics such as a dividend policy, mergers, leasing, and options using text material and case studies. Students will learn how to use electronic spreadsheets in analyzing financial problems. Prerequisite: 310. One semester, 3 credits.

## 413* Principles of Investments

Securities markets and theories of market behavior; securities and portfolio analyses, investment strategies. Prerequisite: 310 or permission. One semester, 3 credits.

## Marketing

## 320 Marketing Principles

An overview course designed to develop an understanding of the role and processes of marketing in contemporary society and a managerial viewpoint in planning and evaluating marketing decisions of the firm. One semester, 3 credits.

## 422* Consumer Behavior

Theories of consumer behavior and applications to marketing strategy and tactics. Psychological, social, economic, and cultural factors influencing consumption are examined. Prerequisite: 320. One semester, 3 credits.

## 423 International Marketing

Product and service mix in international marketing, promotional alternatives; distribution systems; pricing policies; and special opportunities and problems caused by cultural, social, political and other environmental variables. Prerequisite: 320 and 350 . One semester, 3 credits.

## 425* Promotion Management

Strategic management of advertising, personal selling, sales promotion, public relations, and packaging. Prerequisite: 320. One semester, 3 credits.

## 426* Retailing

Introduction to the elements of retail marketing and management, including acquisition and management of merchandise, store location and layout, pricing, and promotion. Application of concepts to various retail institutions.
Prerequisite: 320. One semester, 3 credits.

## Management

130 Business and Society
An introduction to business and management in America. The central focus is on the interrelationships of technological, economic, political, and social forces within business enterprises and on management's ethical obligations to owners, employees, consumers and society at large. One semester, 3 credits.

## 231 Business Law

The law of contracts, agency, and business structures; sales contracts, negotiable instruments and secured transactions. Analysis of selected real property, tort and bankruptcy problems. One semester, 3 credits.

## 232 Dynamics of Organizational Communication

Analysis of the personal, group, and organizational factors that influence communication processes. Development of network models, interaction styles, and group problem-solving techniques. Both oral and written skills are developed. (Not open to those who have had BSAD 233.) One semester, 3 credits.

## 233* Communication Strategies

A workshop in oral and written communication. Simulation of a business environment with emphasis on choice of appropriate strategies for influencing, persuading, and informing groups and subgroups within the modern organization. (Not open to those who have had BSAD 232.) January, 4 credits.

## 330 Management and Organizational Behavior

The systematic study of individual, group, and organizational behaviors and processes. The analyses of these levels of organizational functioning are aimed at enhancing personal and group effectiveness. Topics include motivation, leadership, power, cooperation, decision-making, and organizational change. One semester, 3 credits.

## 332* Business Leadership

An advanced course in leadership designed to explore in depth issues of power, influence and leadership styles and practices. Types of leadership particular to different historical periods, different industries, and different economic and business challenges will be explored. Issues such as the relationship between leaders and followers, the influence of gender on leadership style, and the characteristics of entrepreneurial leaders, corporate leaders and union leaders will be addressed. Particular emphases for the course will be selected each time the course is offered. One semester, 3 credits.

333 Managing Multinational Corporations Establishing and managing international business operations under widely fluctuating
economic and socio-political conditions. Case analysis and guest lectures supplement a rigorous analysis of this subject. Prerequisite: 130 or permission. January, 4 credits.

341 Management Information Systems General systems concepts; past, present and future development of information technologies; procedures and examples of information systems building. Emphasis on applications of information systems and their interactions with other management functions. Prerequisite: 130. One semester, 3 credits.

## 342 Operations Management

History of production and operations management. Concepts and applications of operations management in service and manufacturing. Focus on problem-solving skills, hands-on practice, value-driven approach, quality management and customer satisfaction. Prerequisites: 130, MATH 80 and either MATH 81, 139A,B or 141A. One semester, 3 credits.

## 350 International Business

An introduction to all facets of international business. Case studies and class discussion explore the economic framework of international business; the environmental, operational, and strategic aspects of international business and the social responsibility and future of international business. Prerequisite: 130 or permission. One semester, 3 credits.

## 431* Human Resources Management

Selection, staffing, remuneration, labor relations, training and development of human resources in organizational environments such as business, government, and education. Prerequisite: 330 or permission. One semester, 3 credits.

## 435 Small Business Management

Application of management theory and concepts in the context of a small business. Special consideration is given to the unique problems associated with early stages of growth.
Prerequisites: 201, 330. One semester, 3 credits.

## 489 Management Strategy and Policy

Integration of underlying concepts in marketing, personnel, finance, production, and other business functions; analysis of strategies and operating environments, including ethical concerns; case study and seminar discussion. Prerequisite: Senior standing in BSAD. One semester, 3 credits.

## Additional Offerings

## 14 Business Practicum

Provides students with experiences in the field of business such as: participation in a marketing promotion, preparation for and participation in a management competition, and participation in professional meetings or conferences. May be repeated for credit. Permission. One semester, 1 credit.

## 240* Business Applications with Computers

 The course teaches the basics of computers and computer programs through many exercises with real-world business applications. It is designed for novice users as well as advanced users who wish to apply their skills in problem solving. The course covers a variety of business functions and includes model building and numerical analysis. Student will learn analytical problem solving skills and apply them to handson projects. Prerequisite: 130 or permission. January, 4 credits.
## 391* Business Institute: Liberal Arts at Work

An overview of Business Administration designed to develop introductory competencies in management information systems, finance, accounting, marketing, business communication, and career management. Analysis of small business, large corporations, and international companies will be combined with a corporate internship. Students must be declared liberal arts majors. Permission. January, 4 credits.

## 392 Business Internship

Internship in business setting under joint college/site planning and supervision; helps student apply and assess business management theory, individual skills and personal values in a corporate setting. Eight hours per week at site. Required weekly seminar. Permission. Junior standing required. One semester, 3 credits.

## 390, 490 Selected Topics in Business

Administration
Variable credits. Permission. May be repeated for credit.

## 395, 495 Directed Studies

Credit and time arranged. Permission. May be repeated for credit.

## Chemistry

Priscilla B. Bell, Chair
Devin S. Iimoto
Charles F. Reeg
Kimberley F. Schrum
Darren G. Stoub
he field of chemistry is concerned with the composition, properties, structures, and transformations of natural and synthetic substances. The chemistry curriculum provides instruction for students who plan to pursue graduate studies in chemistry, biochemistry, and related areas; who plan to enter medical and dental schools and other allied health fields; who will seek employment in industry or government; or who want to teach in the science programs of secondary schools. The Department also offers courses in support of other Whittier College science programs as well as courses for students who wish to acquire or strengthen a background in chemistry, but who do not plan a career in science.

The Chemistry Department is approved by the Committee on the Professional Training of Chemists of the American Chemical Society. Students majoring in chemistry who follow the ACS-approved program receive certification as being prepared for a career in chemistry or for graduate study in the field.

## Guidelines for a Major in Chemistry

Core courses for all three options:
General Chemistry, CHEM 110A,B, 8 credits
Quantitative Analysis, CHEM 220, 4 credits
Organic Chemistry, CHEM 231A,B, 6 credits
Organic Chemistry Laboratory, CHEM 233A,B, 2 credits
Physical Chemistry, CHEM 321A, 4 credits
Seminar, CHEM 491, 2 credits
Integrated Laboratory, CHEM 486, 3 credits
Calculus and Analytical Geometry I,II, MATH 141A,B, 8 credits or
Integrated Pre-Calculus/Calculus I,II, MATH $139 \mathrm{~A}, \mathrm{~B}, 7$ credits and
MATH 141B, 4 credits
Introductory Optics \& Modern Physics, Introductory Mechanics \&
Electromagnetism, PHYS 130, 131, 9 credits or
Introductory Optics \& Modern Physics, Introductory Kinematics \& Mechanics,
Introductory Electricity \& Magnetism, PHYS 130, 150, 190, 12 credits (with
permission from the Chemistry department)
I Major in Chemistry
A minimum of 35 chemistry credits.
Choice of 6 additional 300 level chemistry credits.

## II Major in Biochemistry

A minimum of 40 chemistry credits.

## Chemistry

Biochemistry, CHEM 471A,B, 6 credits
Biochemistry Laboratory, CHEM 472, 1 credit
Advanced Biochemistry Laboratory, CHEM 473, 1 credit
Biophysical Chemistry, CHEM 480, 3 credits
Life Science, BIOL 195, 4 credits
Biological Information, BIOL 215, 4 credits
Molecular Genetics, BIOL 381, 4 credits

## III Major in Chemistry with ACS Certification

A minimum of 46 chemistry credits.
Biochemistry, CHEM 471A, 3 credits
Physical Chemistry, CHEM 321B, 2 credits
Physical Chemistry Laboratory, CHEM 325, 1 credit
Instrumental Analysis, CHEM 442, 4 credits
Advanced Inorganic Chemistry, CHEM 452, 4 credits
Choice of three additional 400 level chemistry credits.
Study of a foreign language, although not required, is highly recommended, particularly for students who plan to pursue graduate studies in chemistry.
CHEM 85 and 95 may not be applied toward a major in Chemistry.

## Guidelines for a Minor in Chemistry

A minor in chemistry requires 20 credits: 110A,B; 220; 231A,B; 233A,B.
NOTE: All laboratory courses require a laboratory fee, usually $\$ 25$.

## Course Descriptions

85* Introduction to Chemistry
Survey of the principles of chemistry taught in the context of environmental and/or other contemporary issues. Topics include chemical formulas, atomic structure, bonding, chemical reactions and stoichiometry. Laboratories involve hands on experience with collecting and analyzing data as well as some elements of laboratory method design. One semester, 4 credits. Satisfies the ILS requirement.

## 95 Preparation for General Chemistry

Scientific measurements, matter, elements and compounds, the periodic table, nomenclature, chemical formulas and equations, stoichiometry, oxidation-reduction, gas laws, and solutions are covered. Problem-solving techniques are stressed. Prerequisite: Eligible to take Math 85. One semester, 2 credits.

## 110 A,B General Chemistry

Lecture and laboratory work covering the fundamental principles of chemistry, states of matter, chemical bonding, ionic theory, kinetics, equilibria, thermodynamics, electrochemistry, and descriptive chemistry of metals and non-metals. Laboratory work also includes qualitative analysis and elementary quantitative analysis.
Prerequisites: one semester of college math,
sufficient score on math proficiency exam, or permission. Two semesters, 4 credits each. Satisfies the ILS requirement.

## 220 Quantitative Analysis

Lecture and laboratory work covering statistics and sampling, fundamentals of volumetric analysis and several instrumental methods. Electrochemistry, gas and liquid chromatography, and spectrophotometry will be introduced. Desirable preparation for all further work in chemistry. Prerequisite: 110B, 4 credits.

## 231 A,B Organic Chemistry

Investigation of the fundamental principles of organic chemistry. This course focuses on understanding organic chemistry through chemical mechanisms, stereochemical principles and diverse functional reactivity. Prerequisite: 110B Concurrent registration in 233 required. Two semesters, 3 credits each.

## 233 A,B Organic Chemistry Laboratory

Project oriented class focusing on problem solving within the organic chemistry laboratory. An integrated introduction to laboratory skills, techniques, instrumentation and chemical reactivity. Prerequisite: 110B, concurrent registration in 231 required. Two semesters, 1 credit each.

## Chemistry

## 282 Environmental Chemistry

Atmospheric and condensed phase chemistry involved in modern environmental challenges including global warming, air and water pollution, and ozone depletion. Prerequisite:110A. One semester, 3 credits.

## 321 A,B Physical Chemistry

Chemical thermodynamics; kinetic theory and chemical kinetics; quantum concepts and their applications to spectroscopy and the structure of matter. Prerequisites: 220, 231B, PHYS 130, 131 or PHYS 130, 150, 190, MATH 141B, or permission. Two semesters, 4 credits for A, 2 credits for B.

325, 326* Physical Chemistry Laboratory Precise determination of physical-chemical properties of various systems by classical and modern techniques. Concurrent enrollment in $321 \mathrm{~A}, \mathrm{~B}$ is required. Two semesters, 1 credit each.

## 431* Advanced Organic Chemistry

Detailed investigation into the subspecialties of organic chemistry. This course focuses on understanding physical organic, synthetic organic, bio-organic, industrial and basic pharmacological chemistry. A strong emphasis is placed on current literature, development of problem solving skills and integration of practicality and theory. Prerequisite: 231B and 321A. One semester, 3 credits.

433* Advanced Organic Chemistry Laboratory Project-based investigation of organic laboratory skills, techniques, procedures and instrumental analysis. Through literature review and laboratory implementation, students investigate procedures and logical extensions of organic chemistry research projects. Prerequisite: 233B. One semester, 1 credit.

## 442* Instrumental Analysis

Operating principles and applications of instrumental methods of analysis including atomic absorption, UV-vis, fluorescence, IR, Raman, NMR and mass spectrometry.
Prerequisite: Chem 220. One semester, 4 credits.

## 452* Advanced Inorganic Chemistry

Study of structure and reactivity of coordination and organometallic compounds; emphasis on bonding, symmetry and catalytic properties; laboratory emphasizes inorganic synthesis, reactivity and determination of structure. Prerequisite: 321B or permission. One semester, 4 credits.

## 471 A,B Biochemistry

The structure and function of molecules found within living cells. 471A covers proteins and nucleic acids and integrates them into the process of protein synthesis. 471 B covers carbohydrates and lipids and integrates them into the study of cellular metabolism. Prerequisite: 231B or permission. Two semesters, 3 credits each.

## 472 Biochemistry Laboratory

General biochemical techniques involving protein purification and enzyme catalysis. Prerequisites: 233B and concurrent enrollment in 471 A. One semester, 1 credit.

## 473* Advanced Biochemistry Laboratory

Additional experimental techniques; experience in conducting experiments that are performed under actual research conditions. Prerequisite: 472. One semester, 1 credit.

## 480* Biophysical Chemistry

Thermodynamics, equilibria, biopolymers, kinetics, transport processes, and spectroscopy of biochemical systems. Prerequisites: 471A, MATH 141B, or permission. One semester, 3 credits.

## 486 Integrated Laboratory

Laboratory/instrument intensive course designed to integrate the different disciplines of chemistry. The labs will be designed for some method design and development, data collection and analysis. In addition, students will follow one final project over a period of time and thus be exposed to conditions similar to scientific laboratory research. The final project will involve a self-designed project. Prerequisites: 220, 231B, 233B, 321A, and 491. January, 3 credits.

## 490* Selected Topics in Chemistry

Variable credits. Permission. May be repeated for credit.

491 Seminar
Training and practice in preparation and presentation of oral and written reports on scientific topics. May be repeated for credit. One semester, 2 credits.

## 495 Directed Studies

Credit and time arranged. Permission. May be repeated for credit.

## 496 Research

Individual research projects in selected areas of chemistry under the supervision of a faculty member. Prerequisites: junior or senior standing, and permission. May be repeated for credit. One semester, variable credits.

## College Writing Programs

Susanne Weil, Director of College Writing Programs

Uhittier's curriculum is writing-intensive, designed to teach students how to communicate effectively at each successive level of their major discipline, as well as to general audiences outside their chosen fields. Students begin with Freshman Writing Seminars, progress to Writing Intensive Courses, proceed through Writing Across the Curriculum, and write a capstone Paper-in-the-Major as part of their senior year experience.

Whittier's Writing Center offers peer tutoring. Students interested in teaching careers are encouraged to take INTD 33, the required training class, and work at the Center.

## The Freshman Writing Program

Freshman Writing Seminars introduce students to Whittier's writing program. These seminars, themed courses designed by faculty from all disciplines, delve into challenging intellectual questions which freshmen explore in class discussions and in essays. Freshmen develop both critical thinking skills and the ability to communicate their conclusions about complex problems in clearly written form. Seminar size is limited to 15 students and differ in content each year. Each seminar is 3 units and is taken for a letter grade.

## INTD 100: COLLEGE WRITING SEMINARS

Students read complex texts chosen to sharpen critical reading and thinking skills. Texts frame a central course theme. Writing assignments based on these texts are designed to teach and practice description, narration, exposition, argument, analysis, synthesis, and research-based writing, as well as writing under pressure of time. Extensive revision is emphasized as integral to the writing process. One semester, three credits.

Examples of the 21 College Writing Seminars offered in Fall 2000:
Science and the Criminal Justice System. High profile court cases in recent years, including the O.J. Simpson case, have heightened the awareness of the important role forensic science plays in the criminal justice system. Scientific evidence has been used to free wrongly convicted people, but can it also be used to free the guilty? This writing seminar will explore the science behind criminalistics and how science interfaces with the jury system. We will read court decisions, scientific papers, and works of fiction. This seminar is well suited for students interested in studying science, particularly chemistry and physics.

Wilderness Writing. What lures "civilized" humans into the wilderness, to test the limits of their physical and mental endurance against the conditions nature imposes? When men and women emerge from the Sierra Nevada or remote deserts, from exotic rain forests or national forests bordering urban zones, they seem driven to interpret their experience in writing. In this seminar, we will read texts by wilderness adventurers like John Muir, Henry David Thoreau, Mark Twain, Annie Dillard, Barry Lopez, Jon Krakauer, and others. We will write our own narratives, research the human relationship with the wild, and develop arguments supporting our conclusions. To
ground our discussions and writing in shared experience, members of this seminar will spend a weekend together living in the wild, so only students willing to test whether the rewards of wilderness experience balance its challenges should sign up for this seminar!

Women and Power in the Middle Ages and the Renaissance. In the popular imagination, the Middle Ages and the Renaissance are peopled by knights and damsels. Are these valid images? In this seminar, we will study several extraordinary women from these periods who were princesses, nuns, wives, and mystics. Some had visions; some refused food; some became powerful social and religious reformers. In our discussions about their lives, we will address the following kinds of questions: How did these women gain power in a circumscribed world? How did their gender inform and contain these women? What can we learn about their lives, and can we apply these lessons to the roles that men and women now occupy?

Writing to Understand: Contextualizing the Chicano/Mexican-American Experience Through Literature. The ongoing demographic shift in the U.S. will ensure that by 2025, Latinos will make up almost $18 \%$ of the U.S. population and $43 \%$ of California's. Of this large, diverse group, Chicanos/Mexican-Americans comprise the largest; this seminar will focus on them. Why should you, a freshman at Whittier, care about this population shift? As crossing cultural boundaries becomes more commonplace, it is critical that we engage in an ongoing dialogue about what it means to be "American;" about what it means to be bilingual and bicultural; about what it means to "live on a razor sharp edge of two vastly different cultures;" and about what it means to atravesar--cross--borders. In this writing seminar, you will enter a dialogue that is often messy, confusing, and painful, but often transformative as well. Through critical reading and writing (and rewriting), our goal is to lay part of the foundation you will need as a student at a liberal arts college.

A Word From Our Sponsor: Advertising and the Creative Process. What is advertising? Revered or reviled, the prominence of advertising in modern culture--and its intertwinings with these cultures--make advertising an important area of study. In this seminar, we shall explore what advertising is, how it works, its functions and roles, and its ethics. This is primarily a writing course, so you should be prepared to do significant reading, writing, revising, and talking about your writing process. However, it might interest you to know that this process is analogous to the creative process in which writers and art directors ("creatives"), account executives, and clients participate each day. Great advertising does not spring full-blown from the mind of some creative genius like a latter-day version of Botticelli's Venus; rather, it is the product of creativity guided by the client's need, tempered by the attributes of the target audience, and refined by patient editing and rewriting.

## INTD 90: INTRODUCTION TO COLLEGE WRITING

Students learn critical reading skills for college level texts. These texts serve as bases for assignments teaching fundamental college writing skills: thesis development, organization of ideas, basic exposition and argumentation, and mechanics. Each student learns to develop an effective writing process. One semester, three credits.

An example of the INTD 90 classes offered in Fall 2000:
Rites of Passage: Coming of Age in Diverse Environments. This writing class will explore the paradigm of coming of age and attaining one's role in society as represented in major texts from writers of diverse identities and environments. We will focus on the personal essay and growing-up stories in coming of age fiction and films. Both fiction and films confront issues of assimilation amid the confusion and anger that often results from growing up and being from a different ethnic or otherwise diverse group in a country where ethnicity and diversity are not always prized. The multiple exposures made possible by this multicultural approach should deepen your sense as students of your own historical moment and the ways in which these issues have been framed, both in the past and in other cultures.

## Writing Intensive Courses

Writing Intensive Courses continue students' development as writers by emphazing writing and revision in the context of specific disciplines. Students write at least one longer paper to emphasize the importance of applying information and interpretations gleaned from research or textual analysis. Research paper assignments focus on using information and interpretations to present a case, rather than simply to catalogue information. Papers emphasizing analysis of textual materials involve comparison and synthesis of ideas presented in sources read.

Each student must complete a Writing Intensive Course by the end of the first semester of the sophomore year. The Writing Intensive Course may be taken within or outside the major; it may simultaneously satisfy other Liberal Education Program requirements. Courses satisfying the Writing Intensive requirement in 2000-2001 include: Business and Society; Introduction to Literature; Philosophical Questions; Exploring Religion; American Society; Psychology of Adolescence; and Fundamentals of Nutrition.

## Writing Across the Curriculum

Writing to communicate understanding of core concepts is the primary mode of assessment in both lower and upper division courses at Whittier, including mathematics and science, in both the Whittier Scholars Program and the Liberal Education Program. In their majors, students learn not only to master written modes of discourse typical of their discipline, but also how to "translate" complex disciplinary information to general audiences.

## Paper-In-THE-MAJOR

The capstone writing experience in Whittier's curriculum is the Paper-in-the-Major. Researched and written in the senior year (occasionally in the junior year), this paper demonstrates students' command of their major's perspectives, methods, and body of knowledge, as well as their ability to communicate these skillfully in writing. The Paper-in-the-Major can serve as a writing sample in applications to graduate programs. Specific topics and formats for the Paper-in-the-Major are determined by the faculty in each department.

## The Campus Writing Center and the Peer Mentor Program

Students interested in teaching careers should consider applying to and training for work as peer tutors at the Campus Writing Center. Students may also apply to work in partnership with faculty teaching Freshman Writing Seminars as peer mentors to incoming freshmen. See the Director of College Writing Programs for information about these programs.

## Comparative Cultures

Marilyn Gottschall (Religious Studies)<br>Maurine Behrens (Psychology), Coordinator<br>Gustavo Geirola (Spanish)<br>Zhidong Hao (Sociology)<br>Hilmi Ibrahim (PER)<br>David Iyam (Anthropology)<br>Danilo Lozano (Music)<br>Robert Owens (College Athletics)<br>Tracy Poon Tambascia (Cultural Center)<br>Shelley Urbizagastegui (Library)

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he Comparative Cultures program focuses on areas or traditions markedly different from the dominant cultures of the United States and Europe. In addition to the comparative courses and those on specific regions of Asia, the Middle East, Africa, or Latin America, offerings on "ethnic minority cultures" within the United States, e.g., Chicano/Latino-American, Black/African-American, Native American/American Indian, and Asian American, are also included. Students may pursue: 1) an international track by focusing on areas in Asia, the Middle East, Africa, and/or Latin America, or, 2) they may focus on minorities within the United States. The major seeks both concentration within one geographical area and diversity spanning several disciplines and areas.

The primary aims of the Comparative Cultures major are to increase understanding of people whose cultures differ from mainstream cultures in the United States and Europe, to give perspective on those cultures, and to broaden and deepen appreciation of the diversity and richness of the human experience. The major incorporates diverse ways of understanding the world drawn from the cultures on which it concentrates in order to gain a global perspective and to situate ourselves within the myriad ways of being human. The aims are grounded on the knowledge that an educated person needs such understanding and appreciation both as a world citizen and as a participant in the culturally diverse United States. A Comparative Cultures major also provides excellent background for graduate study in many areas, such as anthropology, area studies, comparative politics, ethnomusicology, history of religions, international business, and international relations.

## Guidelines for a Major in Comparative Cultures

The Comparative Cultures major consists of a coordinated program of courses selected by the student and his/her advisor, chosen from among the faculty listed above. These courses are selected according to the following criteria:
(1) A minimum of 30 credits, at least 24 of which are to be taken from courses numbered 300 or above or a program of study approved by the Faculty Council. (Students participating in the South India Term Abroad Program can count 6 of those credits as 300-level.)
(2) Required courses: ANTH 210, Peoples of the World, 3 credits; and ANTH 311, Field Research: Crossing Cultural Boundaries, 3 credits.
(3) Courses from at least three different disciplines.
(4) A minimum of 12 credits from one of the following three areas: (a) Asia, Africa, and the Middle East; (b) Latin America; (c) U.S. Ethnic Minorities; and at least one course representing each area.
(5) Up to 6 credits from foreign language/composition/conversation courses that are congruent with the geographical specialization may be included.
Although not required for the Comparative Cultures major, study of a foreign language is strongly encouraged. Also recommended as electives are offerings in European cultures (in history, literature, politics, art history, and religion) for exposure to perspectives that contrast sharply with those of the "non-western" cultures emphasized in this program. The following courses have been approved by the Comparative Cultures Council for the major.

## Anthropology <br> 210 Peoples of the World, 3 credits <br> 307 Myth, Symbol, and Meaning, 3 credits <br> 311 Field Research: Crossing Cultural Boundaries, 3-4 credits <br> 323* Environmental Anthropology, 3-4 credits <br> 327 Male and Female: The Anthropological Perspective, 3 credits <br> 332 The Silk Road, 3 credits <br> 374 Cultural Contexts of Childhood, 3 credits <br> 387* Life in Minority Environments, 3 credits <br> Art <br> 308* Colonial Latin American Art, 3 credits <br> Chinese Literature <br> 125* Culture and Civilization in Translation, 3 credits <br> 150* Topics in Literature in Translation, 3 credits <br> 151 Topics in Modern Chinese Literature, 3 credits <br> 190* Current Topics of the Asian World in Translation, 3 credits <br> 325* Culture and Civilization, 3 credits <br> 450* Topics in Chinese Literature, 3 credits <br> 490* Current Topics of the Asian World, 3 credits

## Education

281 Culture, Communication, and Learning, 3-4 credits
305 The Chicano Child, 3 credits
461 Multilingual/Multicultural Education, variable credits
484* World Geography, 3 credits
492 Multicultural Perspectives, 3 credits

## English

347* Asian American Literature, 3-4 credits 348* African-American Literature, 3 credits 350* Third World Novels in English, 3 credits 370* East and South Asian Literature, 3 credits

## French Literature

477* African Francophone Perspectives: From Prose to Cinema, 3 credits

## History

220 East Asian History, 3 credits
221 Modern East Asia, 3 credits
230 Introduction to African History, 3 credits
242* Introduction to Latin America, 3 credits
246 Intro to South American History, 3 credits
315 Mexican Americans, 3 credits
318* Spanish-Mexican California, 3 credits
321* Imperial China, 3 credits
323* Modern China, 3 credits
325* Communist China, 3 credits
329* Modern Japan, 3 credits
331 Comparative Immigrations: Southern
Africa/North American
344 Mexican Revolution, 3 credits

## InTERDISCIPLINARY

225/226 Arabs and Muslims, 6 credits
231A,B,C* Anatolian Civilizations, 6 credits
Music
74 Music of Latin America, 3 credits
75 Music of Africa, 3 credits
76 A World of Music, 3 credits
102 History of Jazz, 3 credits
103 History of American Popular Music, 3 credits

## Philosophy

300 Early Chinese Philosophy, 3 credits
302* Development of Buddhist Philosophical Thought, 3 credits

Political Science
220 International Relations, 3 credits
240 Comparative Politics, 3 credits
348* East Asian Political Systems, 3 credits
349 South East Asian Politics, 3 credits
352 Latin American Politics, 3 credits
354 Latin American Revolutions, 3 credits
356* Middle Eastern Politics, 3 credits
357 Politics of the Third World Novel, 4 credits
358* African Political Systems, 3 credits
420 Seminar in International Relations, 2 or 3 credits

Religious Studies
201 Monotheisms, 3 credits
202 Religions of Asia, 3 credits
203 Religions of South America, 3 credits
234 Meso American Religions, 3 credits
251* Monks, Nuns, and Ascetics, 3 credits
253* Women and Religion, 3 credits
313* Heroes, Gods, and Gurus, 3 credits
330* The Buddha and Buddhism, 3 credits
331* Islam, 3 credits
333 Hindu Religion and Culture, 3 credits
342 Sound, Healing and the Religious Experience, 3 credits
347 Shamanism, 3 credits
350* Latin American Liberation Theologies, 3 credits
352* Pilgrimage, 3 credits
353* Humans and the Cosmos, 3 credits

## Sociology

204 Sociology in the Global Context, 3 credits
287 Workshop in Urban Studies, 4 credits
289 African-American Experience, 3 credits
350* Modern Society, 3 credits
352* Social Class and Inequality, 3 credits
357 Sociology of Development, 3 credits
388 Asians in America, 3-4 credits

Spanish Literature
10 Latin American Performance Experience, 2 credits
190 Special Topics, 3 credits
225 Chicano Literature and Cultural Production, 3 credits

325 Hispanic Culture and Civilization, 3 credits
355/356 Introduction to Peninsular and Latin American Literature I and II, 6 credits
410 Masterpieces from the Middle Ages to the Baroque, 3 credits
420 Quests and Discoveries in Hispanic Literatures, 3 credits
440 Latin American Theatre, 3 credits
470 Latin American Voices: The Twentieth Century, 3 credits
480 Major Hispanic Authors, 3 credits
481 Revisiting the Canon in Peninsular and Latin American Literature, 3 credits
484 Hispanic Avant-Garde Literature, 3 credits
485 Subaltern Voices, Diversity and Marginalization, 3 credits

No more than 6 credits from the following:

## Chinese Language

120/121 Elementary Chinese I and II, 8 credits
220/221 Intermediate Chinese I and II, 6 credits
320 Advanced Chinese: Conversation and Composition, 3 credits

## French Language

120/121 Elementary French I and II, 8 credits
220/221 Intermediate French I and II, 6 credits
225 Conversation, Culture, and Communication, 3 credits
320* Composition and Conversation, 3 credits

## Japanese Language

120/121 Elementary Japanese I and II, 8 credits

Spanish Language
120/121 Elementary Spanish I and II, 8 credits
220/221 Intermediate Spanish I and II, 6 credits
222 Spanish for Bilingual Students, 3 credits
320* Advanced Spanish: Composition and Conversation, 3 credits

## Earth Sciences

## Jan Vermilye

$-\infty$arth Scientists explore all processes relevant to the formation, present state, and future of the Earth. These include geologic, hydrologic, and climatic processes, which involve integration of basic principles from Physics, Chemistry, Biology, and Mathematics. Earth Sciences is central to the Environmental Science Program. Students interested in the Earth Sciences may major in Environmental Science with an emphasis in Earth Sciences. See the Environmental Science section for more information regarding that major.

## Course Descriptions

100 Earth Systems: The Solid Earth
An introduction to the planet Earth, emphasizing the fundamental earth materials and the deep-Earth processes that formed them. Focuses on shifting continents, earthquakes, volcanoes, the origin of extractable resources, and the geological perspective on changes occurring below the surface. Satisfies the ILS requirement. Lectures and laboratory. One semester, 4 credits.

## 105 Earth Surface Environments

An introduction to processes at the Earth's surface. The class explores the global weather and climate systems, the role of water in the environment, and processes that shape the surface of the earth. The class provides basic information on the physical processes maintaining the environment in which life exists. Special topics include global climate change, the greenhouse effect, tornadoes, hurricanes, el nino, floods, landslides, and a survey of glacial, coastal, and stream environments. Satisfies the ILS requirement. Lectures and laboratory. One semester, 4 credits.

## 140 Geographic Information Systems

Introduction to GIS, a map-based database administration and analysis tool. Multiple types of information are referenced by geographic location and stored in overlying data layers. These multiple layers can be queried, combined to calculate new data layers, and interpreted with respect to spatial location. Results are graphically displayed in the form of maps. The class includes a brief introduction to
cartographic methods. Prerequisites: instructor's permission. One semester, 4 credits.

## 180 Integrated Field Science

The geologic history, structure and geomorphology of both the Grand Canyon and Death Valley National parks will be explored, first in the class room and then in the field. Human impact on these parks will be considered and experienced. Each week of intensive on-campus classroom instruction will be followed by a weeklong camping trip to the national park, where as a group we will use our combined skills to decipher the mysteries of the Earth. Satisfies the SMC requirement. Prerequisite: any introductory lab science class and instructor's permission. January, 4 credits.

## 200 Earth Materials

Identification and interpretation of naturally occurring solid Earth materials. Emphasis on the analysis of the chemistry and internal ordering of Earth materials in order to understand and predict their behavior, stability, and occurrence. Lectures and laboratory. Prerequisite: ES 100. One semester, 4 credits.

## 230 Global Change \& Earth History

Examination of the geologic history of the Earth and the evolution of fossil life forms provides a unique perspective for examination of global environmental change. The profound depth of geologic time offers a meaningful context for modern decision making. Lectures and laboratory. Prerequisites: ES 100 or 105. One semester, 4 credits.

Earth Sciences

## 310 Surficial Processes and Landforms

An examination of the agents and processes that shape the Earth's surface and the results of their work. Emphasizes process-response models for natural and human alteration of landscapes. Lectures and laboratory. Prerequisite: ES 100 or 105. One semester, 4 credits.

## 420 Geochemistry

An introduction to the chemistry of solid and liquid Earth material. Geochemical data and methods of analysis are used as tools in the study of hydrologic systems, crystalline rocks, and hydrothermal ore deposits. Attention given to the use of trace elements and isotopes as indicators of geological processes and as means of evaluating groundwater contamination. Lectures and laboratory. Prerequisites: ES 100 and 105 . One semester, 4 credits.

430 Sedimentary Processes and Products
An introduction to physical, chemical, and biochemical sedimentary processes and products. The focus is on sedimentary materials as records of the Earth's history, as reservoirs for fluid resources (water, oil, and gas), and as repositories for wastes. Lectures and laboratory. Prerequisites: ES 100 or 105 . One semester, 4 credits.

## 440 Structure of the Earth

Analysis of the behavior of Earth materials under both localized and regional stress, and the identification of the resulting structures. Measurements in field and the laboratory contribute to analytical and conceptual treatments of mountain-building, plate motions, and the continental growth. Lectures and laboratory. Prerequisite: ES 100 and 105. One semester, 4 credits.

## 470 Water Resources

Principles of atmospheric, surface, and subsurface water circulation. Examines the physical, chemical, and geologic aspects of water resources. The class focuses on the calculation of water budgets at the watershed scale. Special topics include flood hydrology and surface flow mechanics. Prerequisite: ES 100 and 105 . One semester, 4 credits.

## Economics

Stephen F. Overturf, The Douglas W. Ferguson Professor of International Economics
Kim C. Thomas, Chair
Gregory R. Woirol, The Richard and Billie Deihl Distinguished Professor
Charles R. Laine, affiliate

$\rightarrow$conomics is the social science concerned with how economies allocate resources so as to best satisfy society's unlimited wants. It employs a logical and ordered approach to understanding how economies work and how to deal with pressing social issues and problems. In encouraging an appreciation of the way in which economists think about and approach issues, the study of economics is rewarding in itself and, as well, is an excellent background for a wide variety of careers, including law, business, and government. The program is designed to provide a rigorous course of study for those interested in pursuing graduate work in economics.

## Guidelines for a Major in Economics

A minimum of 30 credits, of which 24 must be at the 300 level or above. There are four options leading to a degree in economics: General Distributive (for students with professional interests in areas such as law, government, and secondary education); Business Economics (for students intending to pursue the MBA or other businessoriented programs); Pre-professional Economics (for students planning graduate work in economics); and European International Economics (for students interested in international studies).
General Distributive Option:
Principles of Economics: Macro, ECON 200, 3 credits
Principles of Economics: Micro, ECON 201, 3 credits
Intermediate Macro Theory, ECON 300, 3 credits
Intermediate Micro Theory, ECON 301, 4 credits
Current Economic Problems, ECON 330, 4 credits (paper in the major)
Statistics, MATH 80, 3 credits
Basic Oral Communication, THEA 101, 3 credits

## Business Economics Option:

All of the courses under the General Distributive Option
Plus:
Managerial Economics, ECON 365, 3 credits
Principles of Accounting, I,II, BSAD 201, 202, 6 credits
Two additional Business Administration courses appropriate to this option. Choice of one:

Mathematics for the Management Sciences, MATH 81, 3 credits
Calculus and Analytic Geometry, MATH 141A, 4 credits
Integrated Precalculus/Calculus, MATH 139A, B 7 credits

Pre-Professional Economics Option:<br>All of the courses under the General Distributive Option Plus:<br>Introduction to Econometrics, ECON 305, 3 credits<br>History of Economic Thought, ECON 315, 3 credits<br>Calculus and Analytic Geometry, I, II, MATH 141A, B, 8 credits<br>European International Economics Option:<br>All of the courses under the General Distributive Option<br>Plus:<br>International Economics, ECON 380, 3 credits<br>Comparative Economic Systems, ECON 383, 3 credits<br>European Economic Integration, ECON 385, 3 credits<br>Modern Europe, HIST 369, 3 credits<br>Department-approved foreign language through the intermediate level.<br>Department-approved study abroad

## Guidelines for a Minor in Economics

A minor in economics requires 18 credits, including 200, 201, 300, 301, and six additional credits at the 300 level or above.

## Course Descriptions

## Basic Economic Analysis

 200 Principles of Economics: Macroeconomics The problem of scarcity; theory of national income and employment; policy applications to problems of employment, inflation and business fluctuations; introduction to money, banking, and monetary policy. One semester, 3 credits.
## 201 Principles of Economics: Microeconomics

 Introduction to the theory of price and wage determination in markets. Includes analysis of consumer choice, decisions by firms, industrial organization, and government policy as it affects markets. Also includes discussion of economic efficiency and income distribution in the market economy. One semester, 3 credits.
## Intermediate Economic Analysis

 300 Intermediate Macroeconomic Theory Theoretical analysis of forces that determine the general level of prices, output, and employment; monetary and fiscal policy. Prerequisites: 200 and 201. One semester, 3 credits.301 Intermediate Microeconomic Theory The theory of consumer behavior and of the firm under perfect and imperfect competition; resource pricing; general equilibrium and
welfare economics. Prerequisites: 200 and 201.
One semester, 4 credits.

## 305* Introduction to Econometrics

An introduction to the mathematical and statistical tools used to model, test, and forecast economic relationships. Construction of models, data collection, linear regression, hypothesis testing, and forecasting. Introduction to computer software used for regression analysis. Prerequisites: 200, 201 and MATH 80. One semester, 3 credits.

## 310* Money and Banking

An examination of the institutional structure of the U.S. financial system, including the scope and effect of bank deregulation; the instruments and theoretical impact of Federal Reserve System monetary policy on the domestic and international economy. Prerequisites: 200 and 201. One semester, 3 credits.

## 315* History of Economic Thought

The evolution of economic ideas; concentration on major schools of thought, economists and their ideas since 1750. Prerequisites: 200 and 201. One semester, 3 credits.

## Applied Economic Analysis

330 Current Economic Problems
The application of economic analysis and research methodology to issues such as air pollution and poverty; intensive student research into one current economic problem. This course satisfies the paper-in-the-major requirement. Prerequisites: 200, and 201. Junior or senior standing. January session, 4 credits.

## 340* Urban Economics

Application of economic analysis to problems that stem from urbanization and evaluation of potential solutions. Topics include housing, transportation, poverty, crime, environmental control, urban public finance, and urban planning. Prerequisites: 200, and 201. One semester, 3 credits.

## 343* Environmental and Natural Resource Economics

Application of microeconomic analysis to problems of environmental quality and resource use. Topics include: limits to growth, control of pollution, optimal exploitation of renewable (e.g. fish and timber) and exhaustible (e.g. coal and oil) resources, public vs. private ownership, benefit-cost analysis, equity vs. efficiency. Prerequisite: 201. One semester, 3 credits.

## 345* Public Sector Economics

The role of government in a market economy, the economics of public expenditures and taxation; policy issues. Prerequisites: 200, and 201. One semester, 3 credits.

## 353 Labor in Twentieth Century America

Analysis of changes in labor markets and labor institutions in the 20th century. Topics include union history, collective bargaining, shifts in aggregate employment patterns, current issues. Prerequisite: 200. January session, 4 credits.

## 355 Women in the Labor Force

Analyzes the economic experiences of women both in and out of the labor market including historical trends as well as current issues. Prerequisite: 201. January session, 4 credits.

## 360* Industrial Organization

Application of economic principles to study of structure, conduct, and performance of U.S. industry. Analysis of antitrust and regulation policy in terms of appropriate government
response to industrial performance. Prerequisites: 200 , and 201. One semester, 3 credits.

## 365* Managerial Economics

Application of economic theory and methodology to managerial decisions. Prerequisites: 200, and 201. Statistics recommended. One semester, 3 credits.

## 370* Economic History

Factors behind European and U.S. economic development; concentration on the U.S.
Prerequisite: 200. One semester, 3 credits.

## International Economics

## 380 International Economics

Basic principles of international trade and finance; their application to trade barriers, payment systems, and international organizations; a policy approach. Prerequisites: 200, and 201. One semester, 3 credits.

## 383* Comparative Economic Systems

The organization and performance of economic systems, including capitalism, market socialism, and centrally planned socialism. Prerequisites: 200, and 201. One semester, 3 credits.

## 385* European Economic Integration

Examines the economic bases and core economic concepts that apply to international integration and how they relate to the European case. Specific consideration of European Union policies regarding external economic relations, agriculture, industrial competition, monetary integration, and fiscal harmonization. Prerequisites: 200, and 201. One semester, 3 credits.

## Additional Offerings

390 Current Topics in Economics
Variable credits. Permission. May be repeated for credit.

## 395 Directed Studies

Credit and time arranged. Permission. May be repeated for credit.

## Education and Child Development

Donald W. Bremme<br>Thomas Destino<br>Amy Gimino<br>Kathleen S. Ralph, Chair<br>Anne Sebanc<br>Judith T. Wagner<br>Claudia Ramirez Wiedeman

he Department offers studies in two distinct fields: education and child development. Education programs lead toward teaching and administrative credentials. (California law does not permit students to major in education.) An undergraduate minor in elementary education and a Master of Arts degree in Education are also offered. Child Development offers an undergraduate major and minor, leading toward a variety of careers in working with children.

## Education

Teacher education programs at Whittier College are grounded in a set of guiding principles. Among others, these include commitments to: (1) developing a constructivist approach toward learning and teaching; (2) valuing diversity and supporting all students' learning; (3) establishing a climate which promotes fairness and respect, and which nurtures independent and group learning; and (4) growing professionally by continually reflecting on one's practice and pursuing other opportunities for learning.

Whittier College is accredited by the California State Board of Education and the Commission on Teacher Credentialing to offer programs leading to the Multiple Subject (elementary school) and the Single Subject (secondary school) teaching credentials, as well as programs leading to the Preliminary Administrative Services Credential and the Professional Administrative Services Credential. The Master of Arts degree in Education can be completed with emphasis in such areas as child development; early childhood, elementary, or secondary education; and school administration.

The Multiple Subject Teaching Credential program requires an emphasis in Crosscultural, Language, and Academic Development (CLAD). This program has two components: (1) Subject matter preparation, to demonstrate the candidate's knowledge of all subject areas taught in the elementary curriculum, and (2) Professional preparation, including (a) a four-course core sequence in education, (b) additional courses meeting CLAD requirements. Subject matter preparation requirements may be fulfilled by completing the state-approved College program of courses or by passing the Multiple Subjects Assessment for Teachers. Because California law does not permit majoring in education, credential candidates must complete departmental or interdisciplinary majors as described in this catalog. Among the appropriate majors for Multiple Subject (elementary) credential candidates are biology, child development, English, history, mathematics, and psychology

An undergraduate Minor in Elementary Education may be earned by completing the usual requirements for the Multiple Subjects (elementary) credential plus two additional courses.

The Single Subject Teaching Credential can be pursued with a Crosscultural, Language, and Academic Development (CLAD) certificate. The program includes two components. (1) Subject-matter preparation in an approved major areas:(see department for approved majors). (2) Professional preparation, consisting of a four-course core sequence in education. Subject matter preparation requirements may be fulfilled by completing the state-approved College program of courses or by passing appropriate Single Subject Assessment for Teachers - Praxis examinations.

The Crosscultural, Language, and Academic Development (CLAD) Certificate can be earned by students who complete specified courses in multicultural education, second language acquisition, linguistics, and one approved culture class, as well as approved study of foreign language or its equivalent.

The requirements listed above are not exhaustive. Additional, important information on all education programs and certification requirements is available in the Department of Education and Child Development. Essential information on admission to and advancement in teaching-credential programs is included in these materials. Undergraduate students should obtain this information -and begin meeting with an education advisor- as soon as they become interested in elementary or secondary teaching. While students may not enroll in professional-preparation courses as freshman (see requirements below), early advisement is critical in successfully planning an education program.

Students should be aware that advancement to Credential Candidate Status and student teaching require a 2.8 minimum GPA in the last 60 graded units of course work and a 3.0 minimum GPA, with no grade less than B-, in the professional-preparation courses listed as requirements below.

Procedures and requirements for post-baccalaureate students differ from those for undergraduates. These procedures and requirements are described in separate documents available from the Department. Post-baccalaureate students can complete all credential and masters program requirements through evening and summer courses. Post-baccalaureate students should obtain program information and advisement as early as possible.

## Professional Preparation Requirements for Teaching Credentials

Professional preparation requirements may not be taken in the freshman year. It is recommended that students plan their undergraduate programs so as to take these requirements as late in their College experience as possible, ideally in the junior year and after. The required professional-preparation core courses for students pursuing the Multiple Subjects (MS-elementary) and Single Subject (SS-secondary) Teaching Credentials are as follows:

Learners and Learning, EDUC 402, 3 credits
Teaching in Contemporary Social-Cultural Contexts, EDUC 405, 3 credits
Literacy Development in the Elementary School, EDUC 410, 3 credits, (MS), or Teaching Content Area Literacy, EDUC 411, 3 credits, (SS)
Curriculum and Methods in the Elementary School, EDUC 420, 3 credits, (MS), or Curriculum and Methods in the Secondary School, EDUC 442, 3 credits, (SS)
Student Teaching/Internship, EDUC 486, 487, 488, or 489, 12 credits.
Student Teaching/Internship Seminar: Kindergarten - Grade 12, EDUC 485, 1 credit

In addition, Multiple Subjects Credential candidates must fulfill the following CLAD-emphasis requirements, for a total of 18 credits. (Recommended for Single Subject Credential candidates.)

Second Language Acquisition/Bilingual Methodology, EDUC 460, 3 credits
Cultural and Linguistic Diversity in Schools, EDUC 461, 3 credits
One of the following:
Linguistics, ENG 313, 3 credits
One of the following:
Cultural Contexts of Childhood, ANTH 374, 3 credits
Life in Minority Environments, ANTH 387, 3 credits
Racism in California, HIST 312, 3 credits
Mexican Americans, HIST 315, 3 credits
Racial and Ethnic Relations, SOC 386, 3 credits
Chicana/o Education in Socio - political perspective, EDUC 305, 3 credits
Foreign Language, 6 credits

## Guidelines for a Minor in Elementary Education

A minor in Elementary Education requires 20-22 credits, including CHDV 105, CHDV 315 or 330 , EDUC $405,410,420,460$ or 461 , and one additional course in Education from an approved list.

## Course Descriptions

67 Experiences in Education
Provides students interested in teaching or other education careers with relevant experiences in classrooms or other field settings. Minimum of 26 hours of field experience required. May be repeated for credit. One semester, 1 credit.

## 68 Tutoring in Reading

Learning to tutor elementary school aged children in reading and writing. Focuses on developing strategies for building oral language, reading to and with children, and helping children learn to write. Requires class meetings and 10 hours of fieldwork. One semester, 2 credits.

## 262 Children's Literature

Survey of literary genres and elements, including picture books, folklore, poetry, historical fiction, contemporary realism and nonfiction. Some attention to pedagogical issues for teacher credential candidates. One semester, or January, 3-4 credits.

281 Culture, Communication, and Learning Explores culture and its role in face-to-face interaction, learning, and identity formation, especially among diverse social groups in the United States. Fieldwork in educational and
other community settings required. One semester or January, 3-4 credits.

## 305 Chicana/o Education in Socio-Political

 PerspectiveExamines the intersection of socio-political dimensions impacting the educational experience of Chicana/o students in the U.S. Particular attention is paid to the educational process. Meets a requirement for the CLAD credential or certificate. 3 credits.

## 370* Organization and Administration of Early Childhood Education Programs

 Theories and problems in organization and administration of early childhood education, including preschool, daycare, and after-school programs. Emphasizes staffing and personnel, budget, enrollment, curriculum, supervision, and family/community relations. Includes a minimum of 60 hours of fieldwork at The Broadoaks School. Partially fulfills requirements for Children's Center Supervisory Permit. Prerequisites: CHDV 220 and permission. One semester or January, 3-4 credits.
## Education and Child Development

## 400* Fieldwork in Early Childhood Education Administration

Fieldwork in site-level supervision and administration at The Broadoaks School. Includes required weekly meeting with program director and attendance at regular staff and administrative team meetings. Requirements include completion of a major project in at least one area, such as personnel, budget, enrollment, scheduling, capital improvements, or licensing. Requires a minimum of 80 hours of fieldwork, as arranged. Partially fulfills requirements for Children's Center Supervisory Permit. Prerequisites: CHDV 377 and permission. One semester or January, 3-4 credits.

401* Images of Education in Coming-of-Age Novels and Implications for Contemporary Pedagogy
Centering on contemporary coming-of-age novels, students will examine the representations of educational practice and establish the implications of these images for pedagogical practice. An interactive and discussion based format will be used with students taking responsibility for presentation of the content of the literature to the participants. Issues of diversity, sociological impact of education, and educational philosophy will be prominent features of the course. One semester, 3 credits.

## 402 Learning and Learners

Examines contemporary theoretical perspectives and research on learning and learners.
Emphasizes the social nature of learning and the connections between learning, prior knowledge, and cultural experience. Develops strategies for observing, assessing, and reflecting on students' learning. Requires 20 hours of fieldwork in an assigned educational setting. Permission. One semester, 3 credits.

405 Teaching in Contemporary SocialCultural Contexts
Compares approaches to teaching and considers alternative viewpoints on current educational practices. Focuses on methods that promote learners' autonomy, interaction, and choice and builds a climate of fairness and respect for human diversity. Requires 20 hours of fieldwork. Prerequisites: 402 and permission. One semester, 3 credits.

## 410 Literacy Development in the Elementary

 SchoolResearch and methodology for delivering a balanced, comprehensive program of instruction in reading, writing, and related language arts areas in linguistically and/or culturally diverse elementary classrooms. Topics include: basic reading skills and comprehension strategies, literature-based instruction, on-going diagnostic strategies/interventions, content area literacy, and organizing for instruction. Requires 20 hours of fieldwork. Prerequisites: 402, 405, and permission. One semester, 3 credits.

## 411 Teaching Content Area Literacy

 Research and methodology for preparing secondary teachers to teach content-based reading and writing skills to all students. Topics include: reading comprehension skills, vocabulary development, strategies for promoting oral and written language, phonological/morphological structure of the English language, and writing across the curriculum. Prerequisites: 402, 405, and permission. One semester, 3 credits.420 Curriculum and Methods in the Elementary School
Methodologies appropriate for planning, teaching, and assessment in elementary schools. Topics include: current curricular emphases, long and short term planning, developing and sequencing instructional activities, organizing a supportive classroom environment, using materials and technologies to make subject matter accessible to students, assessing student learning, and using assessment results to guide instruction. Prerequisites: 402, 405, 410, senior standing, and permission, preferably semester prior to student teaching/internship. One semester, 3 credits.

## 442 Curriculum and Methods in the

 Secondary SchoolMethodologies appropriate for planning, teaching, and assessment in secondary schools. Topics include: current curricular emphases, long and short term planning, developing and sequencing instructional activities, organizing a supportive classroom environment, using materials and technologies to make subject matter accessible to students, assessing student learning, and using assessment results to guide instruction. Prerequisites: 402, 405, 411, senior standing, and permission, preferably semester
prior to student teaching/internship. One semester, 3 credits.

460 Second Language Acquisition/Bilingual Methodology
Examines second language acquisition theory and practice and primary language instruction as related to second Language development. Particular attention is paid to language policy $\&$ politics, methodology, program design, linguistics, and the role of culture in learning processes. Required for CLAD credential or certificate. Prerequisite: 410 or 411 . One semester, 3 credits.

461 Cultural and Linguistic Diversity in Schools Examines the nature of culture, the manifestations of culture in U. S. schools, and cultural diversity as it relates to educational processes. Prerequisites: 402 and 405 or permission. Required for CLAD credential or certificate. One semester, 3 credits.

## 462* Curriculum and Procedures for Teaching Social Science (K-8)

Curriculum development teaching strategies, and learning materials in contemporary social science education, as described in State Framework and Curriculum Guides. Prerequisites: 402 and 405 or concurrent enrollment in 420 or permission. One semester, 1-3 credits.

463* Curriculum and Procedures for Teaching Physical Education (K-8)
Curriculum development and teaching strategies in contemporary physical education, as described in State Framework and Curriculum Guides. Prerequisites: 402 and 405 or concurrent enrollment in 420 or permission. One semester, 1-3 credits.

464* Curriculum and Procedures for Teaching Science (K-8)
Curriculum development, teaching strategies, and learning materials in contemporary science education, as described in State Frameworks and Curriculum Guides. Prerequisites: 402 and 405 or concurrent enrollment in 420 or permission. One semester, 1-3 credits.

465 Language Development: Linguistic and Socio political Perspectives
Explores native and second language development in theory and applied to multicultural/multilingual educationl contexts. Also addresses language socioculturally by
addressing issues like the nature of multilingualism, speech community, language variation, and language politics and policy. Required for graduate CLAD credential or certificate. One semester, 3 credits.

## 467 Writing Across the Curriculum; Theories

 \& MethodsIntroduces current research, theories, and pedagogical approaches related to the teaching of writing across the curriculum. Beneficial to teachers who wish to incorporate more (and better) writing assignments into their courses and to implement writing across the curriculum school-wide. One semester, 1 credit.

## 468* Curriculum and Procedures for

 Teaching Mathematics (K-8)Focuses on curriculum development, teaching methods, and instructional materials to foster children's understanding of numbers, numeration, relations, operations, measurement, geometry, and problem solving. Emphasizes active learning through manipulation of objects and integration of the mathematics curriculum with other content areas, in accordance with State Frameworks. Prerequisites: 402 and 405, or concurrent enrollment in 420 or permission. One semester, 1-3 credits.

## 470* Curriculum and Procedures for

 Teaching Art (K-8)Experience with a variety of media and methods for teaching, displaying, and evaluating children's art work, as described in State Frameworks. Emphasizes painting and drawing as described in the State Frameworks. Examination and implementation of four basic components: visual/tactile perception, creative expression, art history and heritage, aesthetic judgment. Prerequisite: 402 and 405 or concurrent enrollment in 420 or permission. One semester, 1-3 credits.

## 480 Computers in Education

Introduction to the role of computers in education. Considers curriculum implications and instructional uses. Review of educational software. Considers classroom and laboratory procedures. Required for all Professional Clear Credentials. Prerequisites: 410 or 411 . One semester, 3 credits.

## Education and Child Development

## 482 Mainstreaming

Emphasizes theory and successful practice in educating special needs students in the least restrictive school environment, K-12, in accordance with national, state, and local laws. Required for all Professional Clear credentials. Prerequisites: 405. One semester, 3 credits.

## 484* World Geography

A survey course which includes physical, cultural and place-name geography. Appropriate introductory course for both undergraduate and post-baccalaureate students, including elementary and secondary teachers. Although this is not a pedagogy course, appropriate teaching strategies to meet State requirements are incorporated. Fulfills the geography requirement for the Single Subject Credential in Social Science. One semester, 3 credits.

485 Student Teaching/Internship Seminar Kindergarten - Grade 12
A professional development seminar designed for new and experienced teachers enrolled in 486, 487,488 or 498 . Topics covered are intended to assist teachers in understanding classroom and school procedures. Prerequisites: Concurrent enrollment in $486,487,488$ or 489 . 1 credit.

## 486 Student Teaching/Internship, Kindergarten - Grade 3

Through carefully planned and supervised experiences, the student assumes the duties of the teacher in selected school programs within the grades indicated. Hours arranged, concurrent enrollment in 485 required. Prerequisites: Acceptance to Credential Candidate Status and others indicated in Department materials. Please consult the Department. One semester, variable credits.

487 Student Teaching/Internship, Grades 4-6 Through carefully planned and supervised experiences, the student assumes the duties of the teacher in selected school programs within the grades indicated. Hours arranged, concurrent enrollment in 485 required. Prerequisites: Acceptance to Credential Candidate Status and others indicated in Department materials. Please consult the Department. One semester, variable credits.

488 Student Teaching/Internship, Grades 6-8 Through carefully planned and supervised experiences, the student assumes the duties of
the teacher in selected school programs within the grades indicated. Hours arranged, concurrent enrollment in 485 required. Prerequisites: Acceptance to Credential Candidate Status and others indicated in Department materials. Please consult the Department. One semester, variable credits.

489 Student Teaching/Internship, Grades 9-12
Through carefully planned and supervised experiences, the student assumes the duties of the teacher in selected school programs within the grades indicated. Hours arranged, concurrent enrollment in 485 required. Prerequisites: Acceptance to Credential Candidate Status and others indicated in Department materials. Please consult the Department. One semester, variable credits.

## 492 Multicultural Perspectives: Sociolinguistics

 Examination of cultural differences and similarities in verbal and nonverbal expression, discourse styles, and learning modalities. Exploration of implications for classroom and other educational settings. Meets the linguistic requirement for the CLAD credential certificate. Prerequisites: 410 or 411 or permission. One semester, 3 credits.
## 295 Directed Studies

395 Credit and time arranged. Permission. 495, $\mathbf{5 9 5}$ May be repeated for credit.

## Graduate Courses

The following courses are open to postbaccalaureate and graduate students. In general these courses are not open to undergraduates. Exceptions are made only through petition to the faculty of the Department.

## 500 Introduction to Educational Inquiry

 Overview of various approaches to educational inquiry. Includes completion of a literature review, and the development and refinement of a question (or set of questions) for subsequent research. Prerequisite: Admission to the Master's Degree Program or by special permission. Required for the Master's Degree. One semester, 3 credits.
## 501 Advanced Educational Psychology

Advanced study of theories impacting learners and learning, related research, and implications for the teaching/learning process. Issues of lifespan development will be examined with
attention given to the young, adolescent, and adult learner. Prerequisite: Admission to the Master's Degree Program and/or 500. One semester, 3 credits.

## 502 Research Techniques

Overview of research techniques in education and their implications for educational research Includes completion of a proposal for master's thesis. Required for the Master of Arts in Education degree. Prerequisites: 500 with a grade no lower than a B-, admission to Master's Degree Program, and permission. May be repeated for variable credits. One semester, 3 credits.

## 503* Sociology of Education

Examines the role of the teacher within the context of the larger society: how social forces shape what teachers do and how teachers influence students. A variety of Sociological and educational perspectives are considered, including those of Weber, Durkheim, Marx, Bowles and Gintis, Freire, Dewey, Giroux, and Hooks. A seminar format will be employed which builds on issues raised in prerequisite courses and connects to issues of educational research. Prerequisites: 500 and/or 501, Admission to Master's Degree Program. One semester, 3 credits.

## 504 Thesis I

Building on the proposal completed in 502, the student initiates the research process and completes the introductory, literature review, and research design chapters of the thesis. Emphasizes the implementation of the current state of the literature, research design, and data collection. May include a variety of quantitative and/or qualitative research techniques. Required for the Master of Arts in Education degree. Prerequisites: 502 and permission. One semester, 3 credits.

## 506 Thesis II

Completion of research initiated in 504, usually focusing on thesis chapters concerning analysis of collected data and conclusions regarding the research. May be required for the Master of Arts in Education degree; please consult departmental advisors or materials for degree requirements. Prerequisites: 504 and permission. One semester, 1-3 credits.

509* Principles of Educational Leadership
Examination of leadership styles, management, and administration of public schools. Investigates goal setting, decision making, needs assessment, and evaluation in leadership context. One semester, 2 credits.

## 510* Administration and the Public

Roles of federal, state, county, and local entities in education. Decision-making processes of Board of Education, staff, unions, and community groups. One semester, 2 credits.

512* Elementary School Administration Examines functions, tasks, activities, and practices of effective elementary school administration. Develops leadership skills at site level. One semester, 2 credits.

514* Secondary School Administration Organization and administration of secondary schools. Presents functions, tasks, activities, and practices of effective secondary school administration. One semester, 2 credits.

## 515* School and Community

Strategies for "marketing" schools, being responsive to clients, and learning the culture of the community. Includes attention to community surveys, interest groups, political issues, and power structure. One semester, 2 credits.

## 516* Instructional Improvement

Curriculum supervision and evaluation at elementary and secondary levels. Includes clinical supervision, proficiency skills, federal and state mandates. One semester, 2 credits.

## 518* Personnel Administration

Recruitment, selection, employment, assignment, certification, and termination of K12 school personnel. Contract negotiations, contract management, conflict resolution, and evaluation. One semester, 2 credits.

## 520* Financial Aspects of Education

School finance primarily at site level. Budget development and management; state and federal revenue and expenditure patterns; legislative controls. One semester, 2 credits.

## Education and Child Development

## 522* Legal Aspects of Education

Legal basis for public education at the local, state, and federal levels. Laws and regulations affecting district and site-level administration. One semester, 2 credits.

524* Field Work in Administration I
Supervised field experience with concentration in supervision and/or administration.
Permission. One semester, 3 credits.

525* Field Work in Administration II
Continuation of field experience initiated in 524 or a field experience in a second area of administration. One semester, 3 credits.

## 548* Administrator Induction

Initial course in the Professional Administrative Services Credential Program, involving performance goal setting, planning course work, other activities, and timelines. One Semester, 2 credits.

## 550* Organizational Theory and Planning

 Examination of the stakeholders making up the organization, establishing organizational mission and goal statements, developing themes, identifying strategic issues, and short and long range planning. One semester, 2 credits.554* Advanced Fiscal Resources Management
Examines topics and issues including sources of funds, budget development, legal considerations, maintenance, operations, transportation, short and long range budget planning, establishing priorities, and risk management. One semester, 2 credits.

556* Advanced Human Resources Management
Development of advanced skills in human resource management, including human resource procedures, mediation, arbitration, fact-finding, PERB rulings, and building positive employeremployee relations. One semester, 2 credits.

## 558* Policy-Laws-Implementation and

## Procedures

Examines public school and district policies and laws which affect curriculum/instruction, human resources, fiscal resources, and how district policies and laws impact the day-to-day operations of school districts. One semester, 2 credits.

560* Information Systems and the Organization
Explores computer technology in education for management and instructional purposes. Includes experiences to gain insight regarding expanded use of computer technology, especially how it relates to instruction, fiscal resources, and human resources. One semester, 2 credits.

## 564* Conflict Management and Problem Solving

Methods of identifying problems and issues; developing positive strategies to resolve conflicts and grievances while maintaining good employeremployee relations. One semester, 2 credits.

## 566* The School Board - Relationships and

 CommunicationUnderstanding the role of the Board and how administrators can develop communication strategies which will help the Board fulfill its roles in an effective manner. One semester, 2 credits.

568* Advanced Administrative Field Work Advanced field experiences in administrative settings such as: principal, human resource services, business services, or instructional leadership. One semester, 2 credits.

## 570* Assessment of Administrator Induction

 PlanThe culminating course in the Professional Administrative Services Credential program includes evaluation by college staff and district mentor regarding the degree of success of meeting the individual goals established in 548, Administrator Induction.

## 590 Special Topics

Open only to students in Education. Credit and time arranged. May be repeated for credit.

## 592 Seminar in Education

Variable credits. Permission. May be repeated for credit.

## 595 Directed Studies

Credit and time arranged. Permission. May be repeated for credit.

## Guidelines for the Major in Child Development

Completion of all disciplinary core and extra-departmental requirements, for a total of at least 34-37 credits.

## I. Core Requirements

Introduction to Lifespan Human Development, CHDV 105, 3 credits
Field Methods: Child Study through Observation and Interaction, CHDV 220, 3 credits
Infancy through Early Childhood, CHDV 315, 3 credits
Middle Childhood, CHDV 330, 3 credits
Practicum: Integration of Theory and Practice, CHDV 477, 4 credits
Senior Seminar in Child Development, CHDV 497, 3 credits

## II. Additional Requirements

Cultural Contexts of Childhood, ANTH 374, 3 credits.
Biological Bases of Behavior, PSYC 222, 3 credits
Statistics, PSYC 314 or other approved statistics course, 3-4 credits
One of the following:
Field Research: Crossing Cultural Boundaries, ANTH 311, 3-4 credits
Experimental Psychology, PSYC 212, 4 credits
Approaches to Social Research, SOC 310, 3 credits
At least one additional course ( 3 to 4 credits) related to the major as approved by the advisor

## Guidelines for the Minor in Child Development

A minimum of 21 credits. A minor must be planned in consultation with a Child Development advisor.
I. Core Requirements

Introduction to Lifespan Human Development, CHDV 105, 3 credits
Field Methods: Child Study through Observation and Interaction, CHDV 220, 3 credits
Infancy through Early Childhood, CHDV 315, 3 credits
Middle Childhood and Adolescence, CHDV 330, 3 credits

## II. Additional Requirements

Two of the following:
Cultural Contexts of Childhood, ANTH 374, 3 credits
Practicum: Integration of Theory and Practice, CHDV 477, 4 credits
Biological Bases of Behavior, PSYC 222: 3 credits
Statistics, PSYC 314 or other approved statistics course, 3-4 credits One of the following:

Field Research: Crossing Cultural Boundaries, ANTH 311, 3-4 credits
Experimental Psychology, PSYC 212, 4 credits
Approaches to Social Research, SOC 310, 3 credits

## Course Descriptions

## 10 Working with Children

Experiential course involving interaction with children and adults (parents, teachers, other professionals). Typically organized around a theme or question of interest to the class. Requires approximately 2 hours fieldwork per week in addition to class meeting. May not be concurrently enrolled with 220 . One semester, 1 credit.

## 11 Supervised Classroom Experience at Broadoaks

Practical experience with various aspects of teaching and learning at Broadoaks. Requires minimum of 3 hours per week in addition to staff meeting. One semester, 1 credit. May be repeated for credit.

## 12 Research with Children

Opportunity to learn and apply research skills by assisting faculty on research. May include research design, data collection, data analysis, and writing up findings. Permission required. One semester, one credit. May be repeated for credit.

105 Introduction to Human Development Emphasizes major theories and principles of human development across cultures. Introduces history, literature, and methodology of the study of human beings from developmental perspectives. Critical reading and writing required. One semester, 3 credits.

## 220 Field Methods: Child Study through Observation and Interaction

Focuses on observing, recording, and interacting with children as a basis for scientific investigation in child development. Field-based research project required. Includes seminar and supervised fieldwork at The Broadoaks Children's School. Prerequisite: 105. One semester, 3 credits.

## 315 Infancy through Early Childhood

Study of physical, cognitive, linguistic, social, emotional, and moral/ethical development from 0 to 8 years. Emphasizes literature review and fieldwork resulting in a scholarly paper. Prerequisites: 105, 220. One semester, 3 credits.

## 330 Middle Childhood

Study of physical, cognitive, linguistic, social, emotional and moral development from 6-12 years. Emphasizes theory, child observation, and research, as well as child and family issues in public policy and current events. Prerequisite: 315. One semester, 3 credits.

## 477 Practicum: Integration of Theory and

 PracticeAn intensive fieldwork or internship assignment designed to (1) situate and contextualize developmental theory and its applications in a real-world setting, (2) help students integrate what they have learned in their liberal arts core with their study of child development from a variety of disciplinary perspectives, and (3) provide opportunities for additional experience in a setting that relates to the student's future academic and career interests. Senior standing. January, 4 credits.

## 490 Current Topics in Child Development

Permission. Variable credits.

## 295 Directed Studies in Child

## 395 Development

495 Time and credit arranged. Permission.

595 May be repeated for credit.

## 497 Senior Seminar in Child Development

 Builds upon previous core and extradepartmental courses in the major, requires indepth study of a significant issue or question relating to CHDV theory and practice. Includes paper in the major. Senior standing. One semester, 3 credits.
## Engineering 3-2 Program

Howard Lukefahr (Physics), Director
Charles Reeg (Chemistry)
Abi Fattahi (Mathematics)

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ngineers apply the principles of science and mathematics to solve real world problems ranging from building bridges to designing computer chips. Whittier College has established cooperative programs with engineering schools at a number of prestigious universities, allowing students to benefit from the broad intellectual training offered by a liberal arts college and the technical training offered by an engineering school. Students in the 3-2 program normally spend three years at Whittier College and two years attending an engineering school. The five-year program leads to a Bachelor of Arts degree from Whittier College and a Bachelor of Science degree in Engineering from a university. The Engineering 3-2 Program web page, accessible through the Whittier College web page and at www.engineering.whittier.edu, provides up-to-date information and announcements important to students planning to complete the program.

## Guidelines for the Three-Two Program in Engineering

To be recommended for admission to engineering school, students must ordinarily complete the prescribed sequence at Whittier College with at least a 3.0 overall GPA, a minimum grade of "C" in each of the 3-2 program core courses, and a 3.0 GPA in the core courses. Students recommended by their advisor and the 3-2 director will normally be admitted to at least one of the cooperating universities. The B.A. from Whittier College will be awarded only after a student has successfully completed all of the graduation requirements at both schools.

As part of the 3-2 program, students may elect to pursue a Whittier College B.A. degree in Physics, Math, or Chemistry. The course requirements for these options are extensive and completion of the program in five years requires careful planning. Alternatively, students in the 3-2 program may elect to complete a B.A. in Science and Letters from Whittier College. The requirements for this program are more flexible than the requirements for a B.A. in a particular science.

Students who do not complete the entire 3-2 program (e.g., do not finish engineering school) will be awarded a B.A. from Whittier College only after completing all of the requirements of a B.A. as described in the Whittier College Catalog. This will usually entail returning to Whittier College for two semesters. The B.A. in Science and Letters cannot be awarded to students who do not complete an engineering program.

All required Liberal Education courses and Core 3-2 courses must ordinarily be completed at Whittier College. Other courses required for the B.A. can usually be taken either at Whittier College or the engineering school. Courses taken at the engineering school to fulfill Whittier College requirements must be approved in advance by the appropriate department, the Registrar, and by the Director of the 3-2 program.

## Core Courses

In addition to satisfying the Whittier College Liberal Education requirements, all 3-2 students must complete the following science and mathematics courses with grades of "C" or better in each course and a 3.0 GPA:
I. Fundamentals of Physics*, PHYS 140, 150, 190; 12 credits
II. General Chemistry, CHEM 110 A, B; 8 credits
III. Calculus and Analytical Geometry, MATH 141 A, B; 241; 12 credits
IV. Differential Equations I, MATH 345A; 3 credits
V. Computer Programming I, COSC 120; 3 credits
*PHYS 130 is strongly recommended for students planning to major in electrical engineering and related disciplines. PHYS 205 is strongly recommended for all 3-2 engineering students.

## Chemistry

3-2 students wishing to receive a B.A. in Chemistry in combination with an engineering degree must complete, in addition to the core courses, the following 21 credits in chemistry.

The following courses must be taken at Whittier College:
I. Organic Chemistry, CHEM 231A, B; 6 credits
II. Organic Chemistry Lab, CHEM 233A, B; 2 credits
III. Quantitative Analysis, CHEM 220; 4 credits

The following courses must be taken either at Whittier or the Engineering school:
IV. Physical Chemistry, CHEM 321 A, B; 6 credits
V. One upper division chemistry course approved by the Chemistry Department;

3 credits

## Mathematics

3-2 students wishing to receive a B.A. in Mathematics in combination with an engineering degree must complete, in addition to the core courses, the following 19 credits in mathematics.
I. Math Proofs and Discrete Math, MATH 290 A,B; 4 credits
II. Linear Algebra, MATH 380; 3 credits
III. Differential Equations II, MATH 345B; 3 credits
IV. Choose one:

Introduction to Analysis, MATH 440A
or
Modern Algebra, MATH 480A; 3 credits
V. Two upper division math courses approved by the Math Department; 6 credits

## Physics

3-2 students wishing to receive a B.A. in Physics in combination with an engineering degree must complete, in addition to the core courses, the following 19-20 credits in Physics.
I. Introductory Modern and Optics, PHYS 130; 4 credits
II. Electromagnetic Theory, PHYS 330; 3 credits
III. Choose one:

Mechanics, PHYS 310;
or
Osc. and Waves, PHYS 300; 3 credits
IV. Choose one:

Advanced Modern Physics, PHYS 325
or
Quantum Mechanics, PHYS 350; 3 credits
V. Choose one:

Optics, PHYS 320
or
Experimental Physics, PHYS 380A,B; 3-4 credits
VI. One additional 200, 300, or 400-level physics course approved by the Physics Department; 3 credits

## Science and Letters

Some 3-2 students may wish to complete a B.A. in Science and Letters in combination with an engineering degree. This option offers more flexibility than the 3-2 majors in chemistry, physics, or math, but students cannot receive a B.A. in Science and Letters without completing an engineering program. The requirements for the Science and Letters major include the Liberal Education program, the 3-2 core courses, the requirements for a minor in Physics, Chemistry, or Mathematics, and six additional credits of upper division courses in any of these disciplines.

## English Language and Literature

Charles S. Adams<br>Tony Barnstone<br>Wendy Furman-Adams, Chair<br>William A. Geiger, The Albert Upton Professor of English Language and Literature<br>Anne Kiley<br>Sean P.T. Morris<br>David Ian Paddy<br>Susanne Weil<br>Katherine Haley Will

he study of language and literature is at the core of the arts that make us humane and free. English courses contribute both to personal enrichment in the liberal arts tradition and to professional development. The study of literature enables us to understand ourselves and other people--as individuals, as participants in particular cultural traditions, and as human beings. Courses in language and in writing, as well as those in literature, develop the ability to make sense out of both our emotions and the world around us, to analyze experience and data, and to express the results of our analysis clearly and effectively. As such, they are significant parts of the lives of all liberally educated people.

Many English majors choose to teach--either at the elementary, junior high, or high school level, or, after suitable graduate work, at a college or university. The emphasis on textual analysis and writing skill, however, makes English a strong undergraduate major for many professions, including journalism, law, and library science, and for a variety of areas in the business world.

## Guidelines for a Major in English

Students should plan their course of study, in consultation with their faculty advisors, as soon as they have decided upon the major.

## Requirements:

1. A minimum of 36 credits, at least 24 of which are at the 300 level or above, and the following:
2. ENGL 220 Major British Writers to 1660.
3. ENGL 221 Major British and American Writers from 1660.
4. At least one course from Writing or Language and Linguistics.
5. At least one course from the four categories of advanced literature courses (Section III) below.
6. At least one course from each of the three following major genres:

Fiction: 331, 332, 336, 352, 358, 363, 370.
Poetry: 324, 329, 334, 335, 364, 371.
Drama: 326, 328, 350, 355.
7. ENGL 328 Shakespeare.

English Language and Literature

The two senior capstone courses:
8. ENGL 400 Critical Procedures in Language and Literature.
9. ENGL 410 Senior Seminar.

Strongly recommended:
Reading knowledge of a second language;
ENGL 155, Language and Critical Thought.
For those considering graduate study in English: ENGL 382 History of Literary Criticism.
NOTE: INTD 100 Freshman Writing Seminar is not a departmental course. Neither it nor a course which met the freshman writing requirement at another institution may be counted toward the English major or minor.

ENGL 120 or 124 , or an equivalent, is a prerequisite to all literature courses with a number of 300 or above, although THEA 150 may be substituted as the prerequisite for ENGL 326, 328, 350, and 354. (Students having credit for ENGL 120 may not take ENGL 124.)

As noted above, all majors must take ENGL 220 and 221. It is required that they be taken sequentially; it is recommended, but not required, that they be taken before enrolling in upper-division literature courses. Courses for which one or both is especially recommended are noted below.

## GUidelines for a Minor in English

A minor in English requires 18 credits, including 120 and at least 9 upper-division credits. (ENGL 220-221 is recommended, but not required, for the minor.) Minors should be planned in consultation with a departmental advisor and must include one course from each of the following: (1) a genre (324, 326, 328, 329, 331, 332, 334, 335, $336,350,352,355,358,363,364,370,371$ ); (2) a historical period; and (3) a major figure (323, 324, 328, 329).

NOTE: For additional information on both the major and the minor, consult the English Department Handbook.

## Course Descriptions

## I. Foundational Courses in Language and Literature <br> 155* Language and Critical Thought <br> Introductory exercises in recognizing and controlling ambiguity with the tools of classification, definition, and exposition of critical thought. Prerequisite: INTD 100. One semester, 3 credits.

## 120 Introduction to Literature

Exploration of various forms of literature from a variety of critical perspectives. (Appropriate for students at all levels who have not had a college course in literature.) Prerequisite: INTD 100. One semester, 3 credits.

## 124* Modern European Literature

An introductory course in literary analysis that focuses upon major works of European literature written since 1648. May be substituted for English 120 as a prerequisite for taking upper-division English courses. Students having credit for ENGL 120 may not take 124. One semester, 3 credits.

## 220 Major British Writers to 1660

A team-taught introduction to major writers in British literature to 1660 , with particular emphasis on their historical and thematic contexts. Prerequisite: ENGL 120 or instructors' permission. One semester, 3 credits.

## 221 Major British and American Writers from 1660

A team-taught introduction to major writers in British and American literature from 1660, with particular emphasis on their historical and thematic contexts. Prerequisites: ENGL 120 and 220. One semester, 3 credits.

## 222* Literature of the Bible

A study of the Hebrew Bible and New Testament, with an emphasis on biblical texts both as literature in their own right and as sources for other literature, art, and music. Prerequisites: INTD 100 and ENGL 120 or instructor's permission. One semester, 3 credits. (Same as REL 216.)

## 223* Greek and Roman Literature

A survey of the epic, drama, lyric, and literary theory of Classical Greece and Rome--from its beginnings in the ninth century B.C.E. through the early common era--including works of Homer, Sophocles, Euripides, Aristophanes, Horace, Virgil, Ausonius, and Paulinus of Nola. Prerequisites: INTD 100 and ENGL 120 or instructor's permission. One semester, 3 credits.

## II. Courses in Writing and Language

Majors are required to take at least one course from either the Writing or the Language and Linguistics category below. Both introductory and upper-division writing courses from this list may be counted toward the major.

## A. Courses in Writing

201* Introduction to Journalism
The fundamentals of writing for a newspaper; introduction to the profession of journalism; problems of reporting, editing, and publishing. Not open to those who have had INTD 105. One semester, 3 credits.

## 202 Writing Short Fiction

By writing short stories and critiquing those of peers and published writers, students learn in workshops and conferences to analyze the problems of writing short fiction. Prerequisite: ENGL 120 and instructor permission. One semester, 3 credits.

## 203 Writing Poetry

An introduction to poetry writing, focusing on form and technique. Workshops, outside readings, visits by established poets.

Prerequisite: ENGL 120 and instructor permission. One semester, 3 credits.

## 302* Advanced Fiction Writing

 Intensive workshop in the writing of short stories. Prerequisite: ENGL 120 and instructor permission. May be repeated for credit. One semester, 3 credits.
## 303* Advanced Poetry Writing

Intensive workshop in the writing of poetry. Prerequisite: ENGL 120 and instructor permission. May be repeated for credit. One semester, 3 credits.

## 304* The Other Creative Writing

A class in forms of creative writing other than poetry or fiction, such as op-ed, memoir, translation, craft essays, travel writing, interviews, profiles, and meditative essays, as well as experimental forms involving collage, reduction, mail art, performance and/or found art. The final project will be a substantial undertaking. Students will learn how to write query and cover letters, and how to identify the correct market for their creations. Prerequisite: ENGL 120 and instructor permission. One semester, 3 credits.

## B. Courses in Language and Linguistics 310 Linguistics

A Study of the sounds, forms, structure, and meanings of human language, alongside the biological and social forces that shape its use and control its evolution over time. Prerequisite: INTD 100. One semester, 3 credits.

## 311* History of the English Language

A study of the origins of English and its dialects, and of the historical, social, and linguistic forces that shaped its evolution from Prehistoric Germanic through Old English, Middle English, and Modern English. Prerequisite: INTD 100. One semester, 3 credits.

## 315* The System of Basic English

An introduction to C.K. Ogden's system of Basic English in light of traditional and modern philosophy. This course is designed for students who want to develop systematic control of written and spoken English. Prerequisite: INTD 100. January, 4 credits.

## 316* Semiotics

Introduction to the major schools of semiotics. Particular attention will be paid to the distinction between signs and symbols, abstracting, multiple uses of language, and the role that symbols and other conceptual tools play in human behavior. Prerequisite: INTD 100. One semester, 3 credits.

## III. Advanced Courses in Literature

Majors are required to take at least one course from areas A - D listed below.

## A. British and European Literature, 500-1700 <br> 320* Literature of Medieval Europe

A survey of the main trends and genres of literature in Europe from the Fall of Rome (c. 500) to the Protestant Reformation (c. 1500). Most texts (coming from Italy, France, and Germany as well as from England) will be read in translation. Prerequisite: ENGL 120; 220 or 222 recommended. One semester, 3 credits.

321* British Literature, 700-1500
A survey of major genres and works of the British Isles to the close of the Middle Ages. Readings include Beowulf, The Canterbury Tales, Sir Gawain and the Green Knight, The Second Shepherd's Play, and the Morte d'Arthur. Except for Middle English texts, works will be read in translation. Prerequisite: ENGL 120; 220 recommended. One semester, 3 credits.

## 323* Dante

A close reading (in translation) of Dante's Divine Comedy in the context both of his Vita Nuova and of various historical and literary movements of his time. Prerequisite: ENGL 120; 220 or 223 recommended. One semester, 3 credits. (Same as REL 316.)

## 324* Chaucer

A close reading of The Canterbury Tales and Troilus and Criseyde, in Middle English and with their medieval background. Prerequisite: ENGL 120; 220 or 321 recommended. One semester, 3 credits.

## 325* Literature of the English Renaissance

Representative literary works of the sixteenth and seventeenth centuries read in the context of historic events which helped shape these works. Prerequisite: ENGL 120; 220 recommended. One semester, 3 credits. (Same as REL 356.)

326* Shakespeare and his Contemporaries An examination of several of Shakespeare's plays in connection with plays by such dramatists as Kyd, Marlowe, Jonson, Webster, and Beaumont and Fletcher. Prerequisite: ENGL 120; 220 recommended. One semester, 3 credits.

## 328 Shakespeare

Introduction to the major plays. Prerequisite: ENGL 120. One semester, 3 credits. (Same as THEA 328.)

## 329* Milton

An examination of John Milton's poetry and major prose in its biographical and historical context, culminating in a close reading of Paradise Lost. Prerequisite: ENGL 120; 220, 222 or 223 strongly recommended. One semester, 3 credits. (Same as REL 357.)

## B. British and European Literature, 1700-1900

330* British Literature, 1640-1789
A survey of British literature of the English Civil Wars, Restoration, and eighteenth century, with particular attention to its social context. Special emphasis is given to Dryden, Defoe, Pope, Fielding, and Johnson, as well as to the numerous women writing during the period. Prerequisite: ENGL 160; 220, 222, or 223 strongly recommended. One semester, 3 credits.

## 331* Rise of the Novel

The pioneers of the novel in English: Defoe, Richardson, Fielding, and Sterne. Prerequisite: ENGL 120. One semester, 3 credits.

332* Nineteenth-Century English Novel Major nineteenth-century novels, selected from the works of Austen, Dickens, Thackeray, the Brontes, Eliot, and Hardy. Prerequisite: ENGL 120. One semester, 3 credits.

## 334* Romantic Poetry

Poetry of Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats. Prerequisite: ENGL 120. One semester, 3 credits.

## 335* Victorian Poetry

Major works by such poets as Tennyson,
Browning, Arnold, and Hopkins, and some prose. Prerequisite: ENGL 120. One semester, 3 credits.

## English Language and Literature

## 336* The European Novel

Selected European novels of the nineteenth century, with particular emphasis on Russian fiction. Prerequisite: ENGL 120. One semester, 3 credits.

## C. British and Global Literature From 1900 <br> 350* Modern Drama

A survey of modern dramatic works from the 1870s to the 1960s, from naturalism to the Theater of the Absurd. Prerequisite: ENGL 120. One semester, 3 credits.

## 352* The Modern British Novel

An examination of British novels from 1900 through the 1940s, with an emphasis on modernism and such novelists as Conrad, Woolf, Joyce, Ford, Forster, Lawrence, and Orwell. Prerequisite: ENGL 120. One semester, 3 credits.

353* Irish Literature, 1888-1949
Irish nationalism and Irish renaissance; emphasis on Yeats, Joyce, Synge, and O'Casey. Prerequisite: ENGL 120. January, 4 credits.

## 354* Contemporary British Literature

A study of British literature and culture since 1950, and of the relationship between literature and national identity in the period. Prerequisite: ENGL 120. One semester, 3 credits.

## 355* Contemporary Drama

A study of key figures and movements in drama and performance art since the 1950s. Prerequisite: ENGL 120. One semester, 3 credits.

## 358* Postcolonial Novel

Twentieth-century novels by Third World writers whose language of composition is English, with emphasis on India and Africa. Prerequisite: ENGL 120. One semester, 3 credits.

## D. American Literature

## 360* The Origins of American Literature

The colonial period through the early republic. Consideration is given to the ways in which American literary expression began to concern itself with unique forms and ideas, in such writers as Bradford, Bradstreet, Wheatley, Edwards, Franklin, Brown, Irving, and Cooper. Prerequisite: ENGL 120; 221 recommended. One semester, 3 credits.

## 361* American Romanticism

The major writers of the literary movement known as "transcendentalism" and the response to them. Such writers as Emerson, Thoreau, Fuller, Hawthorne, Melville, Poe, Douglass, Whitman, Dickinson, Whittier, Longfellow, and Bryant will be considered. Prerequisite: ENGL 120; 221 recommended. One semester, 3 credits.

## 362* American Realism and Naturalism

The major writers of the last half of the nineteenth century to World War I, with emphasis on the two movements of the course title. Such writers as Stowe, Twain, Howells, Crane, James, Norris, London, Chopin, Gilman, Wharton, and Adams will be considered. Prerequisite: ENGL 120; 221 recommended. One semester, 3 credits.

## 363* Modern American Novel

The modernist movement in the American novel from World War I to 1950. Such writers as Cather, Faulkner, Hemingway, Dos Passos, Hurston, Dreiser, Welty, Stein, Steinbeck, Lewis, Fitzgerald, Hammett, and Chandler will be considered. Prerequisite: ENGL 120; 221 recommended. One semester, 3 credits.

## 364* Modern American Poetry

Poets of the modernist era in America, such as Williams, Stevens, Eliot, and Moore. May include some contemporaneous British poets (i.e. Yeats) and American precursors (i.e. Dickinson and Whitman). Prerequisite: ENGL 120. One semester, 3 credits.

## 365* Hemingway and Eliot

Close reading of major works by Ernest Hemingway and T.S. Eliot, with attention to literary form, ethical situations, and world views. Prerequisite: ENGL 120. January, 4 credits. (Same as REL 358.)

## 370* Postmodern American Novel

An examination of American novels since 1950 in relation to postmodern aesthetics, theory, and culture. Prerequisite: ENGL 120. One semester, 3 credits.

371* Contemporary American Poetry
Readings in American poetry from post-World War II to the present. May include some contemporaneous world poetry. Prerequisite: ENGL 120. One semester, 3 credits.

373* The African-American Literary Tradition
An examination of the development of the African-American literary tradition. Among the writers and topics which may be considered are slave narratives, the oral tradition, Wheatley, Douglass, the Harlem Renaissance, Hughes, Hurston, Baldwin, Wright, Ellison, Walker, Angelou, and Morrison. Prerequisite: ENGL 120. One semester, 3 credits.

## 374* Asian-American Literature

A course in contemporary Asian-American fiction, poetry, and drama, with an emphasis on immigrant history and on media images of Asian-Americans. Prerequisite: ENGL 120. One semester or January, 3 or 4 credits.

## 275* Chicano Literature

A survey of the works of Mexican-American authors of poetry, prose, and drama, which delves into questions of gender, textual interpretation, and socio-historic contexts. One semester, three credits. (Same as SPAN 225.)

377* Autobiography and American Culture Examination of autobiography as a particularly American genre. Consideration of the theory and history of the genre. Emphasis on autobiography as a literary expression of a variety of literary, historical, and cultural concerns. Prerequisite: ENGL 120. One semester, 3 credits.

## 378* Wilderness Writing

American writing that explores the human relationship with the natural world. Selected works by Puritan and colonial authors, Emerson, Thoreau, Twain, Muir, Austin, Leopold, Carson, Snyder, Abbey, McPhee, Dillard, Lopez, Momaday, and others. Journal and narrative writing, integrative term paper, and experiential components such as hiking, camping, backpacking, and map/compass navigation are central features of this course. Prerequisite: ENGL 120. January, 4 credits.

## IV. Literary, Formal, and Thematic Alternatives

## 280* Literature on Film

An examination of the complex relationships between literary works and their cinematic realization. Prerequisite: INTD 100. January, 4 credits.

## 381* Images of Love in European Literature

The development of the theme of romantic love from the Song of Songs and Plato's Symposium, through the Middle Ages and Renaissance, to Milan Kundera and the end of the twentieth century. Prerequisite: ENGL 120. One semester or January, 3 or 4 credits. (Same as REL 359.)

## 382* History of Literary Criticism

Major approaches and critical assumptions in the history of literary criticism; special attention to critical movements since 1930. Prerequisite: ENGL 120; 220-21 recommended. One semester, 3 credits.

## 383* Asian Literature

Masterpieces, ancient and modern, of Asian literature--including philosophical writings, poetry, drama, short stories, and novels-from classiscs such as the Analects of Confucius to contempories such as Kobo Abe and Bharati Mukherjee. This class will focus on two or three of the following areas: India, China, Japan, and the Middle East. Prerequisite: ENGL 120. One semester, 3 credits.

## 284* Quaker Writers

An examination of the lives and works of writers who are Quakers, including Jan de Hartog, Jessamyn West, and John Greenleaf Whittier, as well as such seminal Quaker thinkers as George Fox and Lucretia Mott. Prerequisite: ENGL 120. January, 4 credits.

## 386* Satire

The main currents, techniques, and purposes of satire from ancient Greece to the present. Prerequisite: ENGL 120. One semester, 3 credits.

## 387* Science Fiction

A reading and viewing of science fiction from H.G. Wells to Octavia Butler in historical, thematic, stylistic, and socio-political terms. Prerequisite: ENGL 120. January, 4 credits.

## 390* Selected Topics in English and

 American LiteratureAdvanced study in a major figure or movement. Permission required. One semester or January, $3-4$ credits. May be repeated for credit.

## 395 Directed Studies

Credit and time arranged. Permission required. May be repeated for credit.

## 420 Preceptorship: Teaching Literature

Collaboration with professors in teaching introductory literature courses. For advanced majors interested in the theory and practice of teaching literature. Requires attendance at the relevant course (120, 220 or 221) and intensive work with the instructor. Prerequisites: ENGL 120 and instructor permission. One semester, 1 credit. May be repeated for credit.

## V. Capstone Courses and Paper in the Major

Majors are required to take these two courses during their senior year. Senior Seminars may require prerequisites to ensure preparation for advanced work in the area. Students should consult their advisors at least two years in advance to select, then prepare for, an appropriate seminar.

## 400 Critical Procedures in Language and

 LiteratureConsideration of the major theoretical positions in contemporary criticism with their application to selected literary texts. Designed for senior English majors. The portfolio produced in this course satisfies the Paper-in-the-Major college writing requirement for English majors.
Permission required. One semester, 3 credits.
(Same as REL 365.)

## 410 Senior Seminar

Intensive study of a particular figure or topic, for seniors. Prerequisites as appropriate to the subject. Permission required. One semester or January, 3 credits.

## Environmental Science

David Bourgaize
Seamus Lagan
Howard Lukefahr
Kim Schrum
Cheryl Swift, Coordinator
Jan Vermilye

Énvironmental Science is an emerging interdisciplinary approach to examining the environmental problems human society is currently facing on earth -understanding the implications of global change, costs and benefits of maintaining biodiversity, the handling and disposal of hazardous materials, and managing risk associated with large scale natural phenomena such as earthquakes, floods and fires. The strength of the approach of environmental scientists to these issues is reflected in the interdisciplinary nature and the design of the environmental science major at Whittier College. Students electing to major in Environmental Science must choose between concentration in Earth Sciences, Biology, Physics or Chemistry; however, they are also expected to become familiar with all these disciplines. The Environmental Science curriculum is based on a balance between the in-depth knowledge needed to tackle difficult problems and the breadth necessary to view the problems from all possible perspectives.

## Guidelines for a Major in Environmental Sciences

## I. Core Requirements

Introduction to Environmental Science, ENVS 100, 3 credits
Research Methods, ENVS 399, 3 credits
Senior Seminar, ENVS 499, 2 credits
Colloquium, ENVS 50, 1 credit
II. Additional Requirements in Mathematics and Science

General Chemistry, CHEM 110A, 4 credits
Choice of one
Introductory Kinematics and Mechanics, PHYS 150, 5 credits
or
Mechanics and Electromagnetism, PHYS 131, 4 credits
Choice of one
Integrated Precalculus/Calculus, MATH 139A, 4 credits
or
Calculus and Analytic Geometry I, MATH 141A, 4 credits

## III. Breadth Within the Major

A minimum of 6 credits within a single discipline including a course at the 200 level or
above, in Biology, Math, Physics, Earth Sciences, or Chemistry, but outside the concentration discipline. Required core courses from section II Additional Requirements in Mathematics and Science may not be used to fulfill the breadth requirement.

## IV. Breadth Outside the Major

A minimum of 3 credits from the following approved list of courses:

## Anthropology

214 Peoples of the World: Latin America
353 Environmental Anthropology

## Economics

200 Principles of Economics I
201 Principles of Economics II
340 Urban Economics
343 Environmental and Resource Economics
345 Public Sector Economics
Philosophy
105 Philosophical Questions
Political Science
312 Urban Politics
360 Public Administration and Policy
464 Complex Organizations
Psychology
353 Social Psychology
Sociology
261 Investigating Green Politics
287 Workshop in Urban Studies
358 Population Problems and Policy
357 Sociology of Development: Third World Studies

## V. Concentrations

A. Biology

A minimum of 27 credits in biology including:
a. Foundation:

Life Science, BIOL 194, 4 credits
Two courses from the following:
Plant Form and Function, BIOL 205,4 credits
Animal Form and Function, BIOL 210, 4 credits
Biological Information, BIOL 215, 4 credits
A minimum of 19 credits in upper division courses from the following areas:
b. Organismal (2 courses)

Entomology, BIOL 386, 3 credits
Field Ornithology, BIOL 3884 credits

Developmental Biology, BIOL 473, 4 credits
Field Botany, BIOL 473, 4 credits
Field Zoology, BIOL 481, 4 credits
c. Process ( 1 course):

Conservation Biology, BIOL379, 4 credits Marine Biology, BIOL 384, 4 Credits
Evolutionary Biology, BIOL 445, 4 credits
d. Physiology (1 course):

Cell Physiology, BIOL 380, 4 credits Animal Physiology, BIOL 428, 4 credits
e. One additional course from the list for either Organisms or Process, 3 credits

Students considering graduate studies in biology should consult the biology department faculty for additional advising.

## B. Chemistry Concentration

General Chemistry, CHEM 110A, B 8 Credits
Quantitative Analysis, CHEM 220, 4 Credits
Organic Chemistry, CHEM 231A, B, 6 Credits
Organic Chemistry Laboratory, CHEM 233A, B, 2 Credits
Environmental Chemistry, CHEM 2823 Credits

## C. Earth Sciences Concentration

A minimum of 24 credits in earth sciences including:
Earth Systems: The Solid Earth, ES 100, 4 credits
Earth Surface Environments, ES 105, 4 credits
Earth Materials, ES 200, 4 credits
Surficial Processes and Landforms, ES 310, 4 credits
Structure of the Earth, ES 440, 4 credits
And at least one course from the following:
Sedimentary Processes and Products, ES 430, 4 credits
Geochemistry, ES 420, 4 credits
Water Resources, ES 470, 4 credits
D. Physics Concentration

A minimum of 38 units in physics and mathematics including:
PHYS 130: Optics and Modern Physics, 4 credits
PHYS 140: Thermodynamics and Waves, 4 credits
PHYS 150: Mechanics, 4 credits
PHYS 190: Electromagnetism, 4 credits
PHYS 210: Environmental Physics
or
PHYS 205: Electronics and Computer Interfacing, 3 credits
PHYS 380A: Experimental Physics, 2 credits
Five units of physics courses at the 200-level or higher approved by the Department of Physics and Astronomy 2, 5 credits
MATH 141A, 141B, 241: Calculus I - III, 12 credits
Note that PHYS 150 and MATH 141A also satisfy core requirements for Environmental Sciences.

Recommended courses include Experimental Physics B, Oscillations and Waves, Classical Mechanics, and Advanced Modern Physics, but other courses will also be considered.

Students contemplating graduate studies in physics should consult the Department of Physics and Astronomy for additional advising.

## ENVS 50 Environmental Science Colloquium

The colloquium includes speakers from the four disciplines participating in the Environmental Science Program as well as presentations from representatives of disciplines in the social sciences and humanities. This course is designed to complement the existing emphases in the Environmental Science Program. One semester, 1 credit, cannot be taken concurrent with ENVS 100, 399 or 499 without instructors permission.

100 Introduction to Environmental Science An introduction to the field of environmental science, examined from multiple perspectives: biology, earth sciences, chemistry and physics, the scientific disciplines offering concentrations in the Environmental Science Major. The class focuses on the contributions these different disciplines make to the diagnosis and solution of environmental problems, with an emphasis on the interdisciplinary nature of these issues. The class is best suited for students considering environmental science as a major or students with genuine concerns about environmental problems. One semester, 3 credits. Prerequisite: one semester of college math, and one semester introductory lab science.

## 399 Research Methods in Environmental

 ScienceAn introduction to research methods used by scientists to address environmental problems. This class will discuss the application and limitations of the scientific method, the use of scientific literature in identifying and evaluating solutions to problems, and the respective roles of federal, state, and private organizations in formulating and enforcing environmental policy. In keeping with the nature of Environmental Science, interdisciplinary approaches will be emphasized. Offered in Spring. Recommended for juniors or second semester sophomores. Prerequisite: ENVS 100, completion of at least 8 units within the concentration, One semester, 3 credits

499 Senior Seminar in Environmental Science
The senior seminar is an interdisciplinary examination of current problems being addressed by Environmental Scientists participating in the Environmental Science Colloquium. Students are expected to approach these problems using understanding gained through the concentration as well as encouraged to deepen their appreciation for the perspective of other concentrations. One semester, 2 credits.

## Foreign Study Programs

## Whittier College-in-Copenhagen

Whittier College has participated in Denmark's International Study Program since 1959. Each fall, Whittier students study in Copenhagen with Danish professors teaching Whittier courses in the English language. A member of the college faculty accompanies the group as counselor, administrator, and instructor. Students live with Danish families and participate in organized tours.

## Whittier-in-South India

Whittier College participates in an intercollegiate consortium with eight other premier liberal arts colleges to support a semester of study in South India, under the auspices of South India Term Abroad located in the city of Madurai, Tamil Nadu. The program is designed for undergraduates with a broad interest in South India.

## Whittier-in-Seville

Whittier is affiliated with the Center for Cross-Cultural Study program in Seville, Spain. The program provides students with the opportunity to develop or enhance their fluency in the Spanish language while immersing themselves in Spanish culture and society.

## Other Programs

Whittier also offers opportunites for international study in over 30 countries at more than 70 locations in Africa, Asia, Australia, Europe, and Latin America through affiliations with a variety of academic institutions and has exchange agreements with specific universities in Australia, China, and Japan.

Students participating in international study programs must petition the Registrar, prior to their participation, to have appropriate courses counted toward Liberal Education requirements. Students interested in studying abroad should see the Director of Foreign Studies in the Office of International Programs.

## Additional Countries

Programs are currently available in the following countries:

| Argentina | Mexico | England |
| :--- | :--- | :--- |
| India | Cuba | South Africa |
| Australia | Netherlands | France |
| Ireland | Czech Republic | Spain |
| Austria | New Zealand | Germany |
| Israel | Denmark | Sweden |
| Chile | Poland | Greece |
| Italy | Ecuador | Thailand |
| China | Russia | Hungary |
| Japan | Egypt | Wales |
| Costa Rica | Scotland |  |

## Copenhagen Program Courses

The following courses are normally available through the Copenhagen Program:
ART 304, European Art: Renaissance to Baroque
BIOL 302, Biological Oceanography
BIOL 305(HIST 371), Ecological History of Europe
BIOL 306, Marine Vertebrate Biology
BIOL 391, Marine Biology of European Coastal Waters
BIOL 392, Ecology and Human Impact in the North and Baltic Seas
DAN 201, Danish Language
ENGL 321, Nordic Mythology
ENGL 361, Hans Christian Andersen
ENGL 362, Contemporary Scandinavian Literature: Karen Blixen
HIST 367, The Viking Achievement
HIST 370, Twentieth Century European History
HIST 372 (REL 326), The Jews in Europe from the Middle Ages to the Present
INTD 311, Russia: Politics and Society
INTD 350, Human Rights: The European Perspective
PHIL 322, European Thought from Modernism to Post Modernism
PHIL 325, Kierkegaard: Philosophy and the Meaning of Life
PLSC 324, European Conflict and Security Issues
PLSC 335, The European Community: The Politics and Economics of European Integration
PLSC 336/SOC 391, Danish Society and Culture
PLSC 341, Nationalism and Minorities in Europe
PLSC 347, Eastern Europe in Transition
PLSC 375, Environmental Problems and Policy
SOC 367, Comparative Justice in Scandinavia
SOC 391/PLSC 336, Danish Society and Culture

## History

Richard L. Archer, chair
Robert B. Marks
Laura M. McEnaney
Donald A. Nuttall
José Orozco
Elizabeth Sage
he Department of History offers a curriculum that is global in its approach and integral to a liberal arts education. The history major enables students to understand human beings and institutions around the world through the study of the human past. It encourages students to understand themselves and their multiple communities through comparison with cultures of other times and places. In a world that is increasingly interconnected, the study of history thus is a particularly apt way for students to understand both how the world we live in came to be, and their place in it. Indeed, the department strives to place all national and local histories into a global context.

Reflecting the department's commitment to providing an education fit for a global world, a seven-course core begins in the freshman year with an "Introduction to World History," and ends with a senior capstone. An additional three courses in one world area adds depth, and at least one course in four other world areas contributes breadth of knowledge about the world.

History 101 (Introduction to World History) serves as prerequisite for 300-level courses, as do 200-level courses in the relevant world areas; these courses should be taken in the freshman and sophomore years (for specific prerequisites, see the course listings on the following pages). Students planning a History major should take History 281 (History and Theory) in the sophomore year, and History 380 (Historical Methods) in the junior year.

To help prepare students for the world of work or for graduate school, the History curriculum offers two additional opportunities. Preceptorships (History 60 and 61) offer a special opportunity for junior and senior History majors to work with faculty in the teaching of introductory courses. The Preceptorships are especially useful for students intending to pursue either a graduate degree or a career in secondary school teaching, although they are open to all majors. Through its Internships (History 50), the History department offers opportunities for students to gain work experience.

## Guidelines for a Major in History

A minimum of 30 credits:
I. Foundation courses (four courses, 12 credits)

Introduction to World History, HIST 101, 3 credits
The U.S. to 1877, HIST 206, 3 credits
The U.S. Since 1877, HIST 207, 3 credits
One additional 200-level course, 3 credits
II. Theory and Methods (three courses, 7 credits)

History and Theory, HIST 281, 3 credits

Historical Methods, HIST 380, 3 credits
Either Internship, HIST 50, 1 credit
or Preceptorship in World History, HIST 60, 1 credit
or Preceptorship in U.S. History, HIST 61, 1 credit

## III. Breadth

At least one course in five world areas, (Africa; Asia; Europe; Latin America; and United States) 9-12 credits.

## IV Depth

Three 300-level courses in one world area, 9 credits
V. Senior Seminar, HIST 483, 3 credits

Recommended:
A course in statistics
Two to four years of a foreign language
Study abroad

## Requirements for a Minor in History

A minimum of 18 credits, including either History 281 or 380, and at least one course in two of the following world areas: Africa; Asia; Europe; Latin America; United States.

## Course Descriptions

## World and Comparative

## 101 Introduction to World History

A history of the world from the Neolithic revolution to modern times. Topics covered include: the invention of agriculture and the rise of early civilizations in the Fertile Crescent, Egypt, Asia, and Meso-America; early GrecoRoman, Indian, and Chinese classical civilizations; in the Middle Ages (ca. 500-1000 c.e.) the rise of Islam and the Arabic world, the medieval world in Western Europe, and the Chinese empire; the Mongol conquest and Eurasian empire; the rise of Western Europe and its offshoots, Russia and the United States; India under British rule and since independence; postColumbian Latin America; the history of sub-
Saharan Africa; and revolution and imperialism in East Asia. One semester, 3 credits.

## 230 Introduction to African History

A history of Africa from prehistory through the present. One semester, 3 credits.

## 331 Comparative Immigrations: Southern

 Africa and Northern AmericaA comparative history of the migration patterns, organization of labor, and migrant laborers'
experiences in Southern Africa and Northern America. Prerequisite: 101, 230, or 242. One semester, 3 credits.

## 480 Capstone Seminar

Significant contributions to the history and theory of the processes creating the modern world are read and discussed. For history majors and others in the social sciences or humanities. Prerequisites: 281 and 380. One semester, 3 credits.

## United States

## 90 American Cultural History

Historical examination of American values, beliefs, institutions, the family and childrearing, and pluralism, including the immigrant experience. Does not satisfy requirements for major. One semester, 3 credits.

206 United States to 1877
Origins and early national development of the United States to the end of Reconstruction; development of the American people, growth of nationalism, rise of democracy, and divisiveness of Civil War. One semester, 3 credits.

## 207 United States since 1865

National development from Reconstruction to the Reagan era. Explores industrialization, urbanization, foreign policy, domestic politics, and social trends and movements. One semester, 3 credits.

## 300 Colonial America

The European, Native American, and African backgrounds, experiences, and evolving institutions of the English colonies in North America from the initial contact of peoples to the establishment of a mature provincial society. Prerequisite: 206 or 90 . One semester, 3 credits.

## 301* The American Revolution

Origins, progress, and character of the struggle against Great Britain, internal developments, problems of the "critical period," and the making of the Constitution. Satisfies the state teaching credential requirements in the American Constitution. Prerequisite: 206 or 90. One semester, 3 credits.

## 304 A Nation Divided, 1820-1865

An examination of antebellum America, the causes of the Civil War, and the War itself. Prerequisite: 206 or 90 . One semester, 3 credits.

## 305* America in the 1960s

Examination of the foreign policy, domestic politics, and social and cultural developments of the 1960's. Includes topics such as the Vietnam War, the civil rights and anti-war movements, the counterculture, second-wave feminism, and the New Right. Prerequisite: 207 or 90 . One semester, 3 credits.

## 306* Recent United States

The history of the United States from World War 2 to the present, emphasizing socialculture developments, domestic politics, and foreign policy. Prerequisite: 207, 90 or consent of instructor. One semester, 3 credits

## 309* Women and Gender in the U.S.

Historical investigation of gender ideologies and women's experiences in the U.S. with a focus on economic, political, and social history.
Prerequisite: 207 or 90 . One semester, 3 credits.

## 312 Racism in California

The historical experience of the Indians, Mexican Americans, Chinese, Japanese, and Blacks in California. January, 4 credits.

## 315 Mexican Americans

The Mexican Americans' past; treats the Indo, Hispanic, Indo-Hispanic, Mexican, and United States periods of their historical experience. Designed to offer greater understanding of one of the largest ethnic minority groups in the United States. One semester, 3 credits.

## 317* California

California from pre-Spanish times to the present; stresses political, economic, and social developments. Prerequisite: 206 or 207 . One semester, 3 credits.

## 318* Spanish-Mexican California

California from the pre-Columbian period to its acquisition by the United States in 1848; stresses political, economic, and social developments during Spanish and Mexican rule. Prerequisite: 101 or 242 . One semester, 3 credits.

## 319* Twentieth Century California

California's political, economic, and social transformation during the 20th Century, with emphasis on the post-World War II period. Prerequisite: 207. One semester, 3 credits.

## ASIA

## 220 East Asian Civilization

The development of East Asian civilization, primarily China and Japan, from earliest times to 1850 , emphasizing the relationships among social, economic, political, and intellectual institutions. One semester, 3 credits.

## 221 Modern East Asia

The history of East Asia from 1850 to the present, focusing upon China and Japan and emphasizing the ways each responded to the challenges of European and American imperialism in creating their own modern societies. One semester, 3 credits.

## 321* Imperial China

China from earliest times to the 19th Century; emphasizes the major social, economic, and political developments of the imperial period. Not open to those who have taken 220.
Prerequisite: 101 or 220 . One semester, 3 credits.

## 323* Modern China

History of revolution in modern China, 18501949; the impact of imperialism on traditional Chinese society, the Taiping Revolution of the mid-19th Century, revolutionary development in the early 20th Century and history of the Chinese Communist movement from 1921 to 1949. Prerequisite: 101, 220, or 221 . One semester, 3 credits.

## 325* Communist China

Major social, political, economic, and intellectual developments in China since the 1949 revolution; the relationship between Maoist theory and China's socio-historical development; problems in bringing about a socialist reorganization of society in conditions of economic scarcity. Prerequisite: 101, 220, or 221. One semester, 3 credits.

## 329* Modern Japan

Major social, political, economic and intellectual developments in Japan from the 17th Century to the post- World War II era; the transition of Japan from a traditional to a modern society; the nature and social costs of Japanese capitalism; the expansionist thrust; the breakdown of the state in the 1920s and 1930s. Prerequisite: 101 or 220 . One semester, 3 credits.

## Latin America

## 242 Introduction to Latin America

Latin America from pre-Columbian times to the present; topical treatment of historical developments and trends basic to understanding current political, economic, and social conditions. One semester, 3 credits.

## 246 South America

A comparative history of Argentina, Brazil, and Peru, focusing on the differences in their colonial and post-colonial histories. One semester, 3 credits.

## 340* Colonial Spanish America

Spain's American Empire, including preColumbian civilizations, Hispanic background, discovery and colonization; Spanish America's political, economic, and social institutions; independence movements. Prerequisite: 101 or 242. One semester, 3 credits.

## 344 Mexican Revolution

Mexico's Revolution from its inception in 1910 to the present; resultant political, economic and social changes. Prerequisite: 101 or 242 . One semester, 3 credits.

## Europe <br> 201 Western Civilization since the <br> Seventeenth Century

The development of Western civilization in the Age of Reason, the Enlightenment and the more recent ages of Revolution, Romanticism, Imperialism, and World Wars. One semester, 3 credits.

## 360 Women and Gender in Modern Europe

An exploration of the lived realities of women's life and the changing relations between the sexes from the French Revolution to the present. Themes include separate spheres, cultural construction of gender and motherhood, women's changing economic roles, conflicts in class and empire, and discourses of/on femininity. Prerequisite: 101 or 201. One semester, 3 credits.

## 361* The French Revolution

The French Revolution introduced modern democracy and the first totalitarian society to the European world and gave us many of our political ideas and ideals. This course investigates events, politics, and people, including origins of the Revolution, the storming of the Bastille, the Terror, popular democracy, and the end of the Revolution with Napoleon's rise to power. Prerequisite: 101 or 201. One semester, 3 credits.

## 362 Religion in European History

This course explores the changing character of religious practice and belief in nineteenth and twentieth-century Europe. We will discuss the continuing vitality of religion in the modern world, focusing on religious institutions and their interaction with popular religion in urban and rural, domestic and public settings.
Readings will discuss the role of class, gender, and ethnicity in shaping religious practice. Prerequisite:101 or 201. One semester, 3 credits.

## 363* Socialism in Europe

In the 1830s French \& British Utopian Socialists dreamed of creating the perfect society. The course begins with this idealism and follows socialism in Europe through the phases of Marxism, worker struggle, anarchism, up to its implementation, in modified form, as the ruling politics of France, Germany, and Italy in the period from the 1950s to the 1980s. Prerequisite: 101 or 201. One semester, 3 credits.

## 364* France 1800-1910

This course covers the "long nineteenth century" in France. The period 1800-1914 saw four revolutions, two emperors, two republics, and the "modernization" of French society and culture. We'll look closely at political and class conflicts, at the French role in the "scramble for Africa," and in particular at questions of nationalism and identity. How did France construct itself as a unified nation? How is this connected to Revolution and Republic? What does it mean to be French? (besides gaulouises, berets and baguettes?) And how does this limit and direct politics, culture and daily life? Prerequisite: 101 or 201. One semester, 3 credits.

## 365 Germany Since 1870

Modern Germany was born with the unification by Bismarck of German territories in 1870. This course follows German people and their politics from 1870 to 1991, through the German Empire, World Wars I \& II, Hitler and the Holocaust, the division of Germany into two nations in 1945 and its reunification after the fall of Communism 1989. Prerequisite: 101 or 201. One semester, 3 credits.

## 366 Europe Since 1945

A comparative view of European nations from the end of World War II through the Bosnian conflict. We will focus on primary sources to explore the welfare state, decolonization and immigration, student rebellion in 1968, global capitalism, the Cold War and the fall of Communism. Prerequisite: 101 or 201 . One semester, 3 credits.

## 367 Early Modern Europe

Western Europe and the Holy Roman Empire from ca. 1500-1800. This course covers the expansion of Europe $\&$ formation of early empires, the rise of modern states and the beginnings of modern culture. Intellectual and
cultural developments include the French Wars of Religion, the English Reformation, and the Enlightenment. Prerequisite: 101 or 201. One semester, 3 credits.

## 368 Emergence of Modern England

England during the Tudor and Stuart periods, 1485-1714, emphasizing the reigns of Henry VIII and Elizabeth I, the Reformation, the Civil War, and the Revolution of the 17th century. Prerequisite: 101 or 201 . One semester, 3 credits.

## 369 Modern Europe

Western Europe since 1870. Follows the newly created modern states of Italy, Germany, and a newly republican France through the rise of nationalism and imperialism, two World Wars and into the post-modern period of economic union and feared cultural disintegration. Prerequisite: 101 or 201 . One semester, 3 credits.

## Theory and Methods 50* Internship

Professionally supervised museum and archival work. Permission. May be repeated only once for credit. One semester, 1-3 credits.

## 60 Preceptorship in World History

A one-semester course taken in the junior or senior year designed to engage students in the theory and practice of teaching world history. For those students intending to teach secondary school or to enter a graduate program in history, students in the preceptorship will work closely with the faculty who teach the foundation courses. Students will attend HIST 101, World History, meet weekly with the faculty to discuss pedagogical issues that arise in the teaching of world history, and will plan and teach two instructional modules. Prerequisite: Junior standing and 101 . One semester, 1 credit.

## 61 Preceptorship in U.S. History

A one-semester course taken in the junior or senior year designed to engage students in the theory and practice of teaching U.S. history. For those students intending to teach secondary school or to enter a graduate program in history, students in the preceptorship will work closely with the faculty who teach the foundation courses. Students will attend either HIST 206 (The U.S. to 1877) or HIST 207 (The U.S. Since

## History

1877), meet weekly with the faculty to discuss pedagogical issues that arise in the teaching of U.S. history, and will plan and teach two instructional modules. Prerequisite: Junior standing and 206 or 207 . One semester, 1 credit.

## 281 History and Theory

How do historians know what happened in the past? Can they know? What are the most important ways in which historians approach understanding and interpreting the past? This seminar explores those questions through reading and discussing significant works by and about historians, with the focus on currently practicing historians. Prerequisite: 101 or any other 200-level course. One semester, 3 credits.

## 380 Historical Methods

Introduction to methods of historical research and writing. For those pursuing a history major and others interested in developing basic skills. Prerequisite: 281 . One semester, 3 credits.

390, 490 Selected Topics in History
Variable credits. Permission. May be repeated for credit.

## 395, 495 Directed Studies

Credit and time arranged. Permission. May be repeated for credit.

## Interdisciplinary Courses

## 11 Quaker Campus Workshop

Experience working on the student newspaper, The Quaker Campus. Writing articles, editing copy, doing layout and design, taking photographs, and learning about issues in journalism. May be repeated for credit. One semester, 1 credit.

## 12 Acropolis Workshop

Experience working on the yearbook, The Acropolis. Editing and writing copy, doing layout and design, taking photographs, and learning business management skills. May be repeated for credit. One semester, 1 credit.

13 Career Planning for Undecided Students An introduction to career-life planning. The course focuses on self-assessment, exploration of career and college majors, career decision making, exploration of internships and career preparation. The course is recommended for freshman and sophomore students who are undecided about their academic major and/or future career options. One semester, 1 credit.

## 14 Career Planning

Career-life planning course for students interested in defining their career goals and preparing for graduate school/job search. The course focuses on career selection, career and graduate school preparation and job search strategies. The course is recommended for sophomores, juniors and seniors. One semester, 1 credit.

15 Leadership and College Student Development
Personal development; interpersonal skills; peercounseling; student development; assertiveness; values exploration; leadership and program development skills; and special issues related to college students in residence. Open to all students, but those interested in applying for a Residential Life staff position must enroll in course. One semester, 1 credit.

## 25 Jazz Ensemble

Holds weekly rehearsals (seminars) and is designed to give students an opportunity to study and perform techniques and styles of jazz. The ensemble will focus on the development of instrumental improvisation, blues interpretation, and the memorization of classic jazz standards. Contemporary musical concepts and terminology will also be examined. Emphasis will be placed on a jazz combo (small group) setting. One semester, 1 credit.

## 33 Teaching Composition

This course is designed to provide training in the techniques of teaching secondary and collegelevel writing. Students will follow the progress of the instructor's ongoing Freshman Writing Seminar from the initial, "diagnostic" essay to the final research paper, learning how the instructor structures a writing course through both reading and writing assignments and classroom exercises, as well as techniques of individual tutoring. This course is required training for students who wish to work at the Campus Writing Center, students interested in secondary and college-level teaching would also find it helpful. May be repeated for credit. One semester, 1 credit.

## 53 Introduction to Radio Broadcasting

Experience working as a Disc Jockey at KWTR, the campus radio station. Select and introduce music, operate broadcast equipment, read promotional announcements, complete program logs, and generate listenership and income for the station. Learn about the issues facing radio and the recording industry. May be repeated for credit. One semester, 1 credit.

## 54 Radio Station Management

Learn to manage KWTR, the campus radio station. Supervise and schedule DJ's; work with record companies to obtain material for airplay; report playlists to appropriate music journals and record companies; solicit promotional material from record companies, concert venues, and other prospects; learn about the technical aspects of station operation and licensing; create policies to generate listenership. May be repeated for credit. One semester, l credit.

## 60 Succeeding in College

This course is designed to assist students in discovering how to obtain a successful college experience both academically and personally. Emphasis is placed upon the development of practical knowledge and skills including: time planning, communication skills, study techniques, critical thinking skills, community and campus resources, and managing the personal and relationship issues that face many college students. One semester, 1 credit.

## 90* Introductory Writing Seminar

Students learn critical reading skills for college level texts. These texts are the basis for assignments which teach fundamental college writing skills: thesis development, organization of ideas, basic argumentation and exposition, and mechanics. Emphasis is placed on helping each student develop a viable writing process. One semester, 3 credits.

100 Seminar: Introduction to College Writing Students read complex texts chosen to sharpen students' critical reading and thinking skills. Texts frame a central course theme. Writing assignment based on these texts are designed to teach and practice persuasion, description, narration, exposition, and research-based writing, as well as writing under pressure of time. Extensive revision is emphasized. Prerequisites: INTD 90 or permission based on SAT verbal and high school GPA scores. One semester, 3 credits.

## 101*, 102 The Western Mind I,II

This sequence is a survey of the artistic, philosophical, religious, and scientific history of Western Civilization from the Greeks and Hebrews to the 20th Century. Rather than giving more or less equal coverage to all periods, the course is structured around the periods and places within which there was the initial articulation or testing of major concepts, values, and institutions, such as Athens in the 5th century B.C. and Paris in the 13th century. Through both semesters, the goal is to provide a basis for understanding such ambiguous terms as "order," "classicism," "realism," "romanticism," "reason," and "naturalism." Two semesters, 3 credits each.

## 106* Introduction to Mass Media

Possible topics include history of the print media; history of broadcasting; the workings
and function of newspapers, books, radio, television, advertising, and public relations; legal and ethical issues facing the mass media, and ownership and control of the media. One semester, 3 credits.

110* Introduction to The Quaker Campus
Possible topics include identifying The Quaker Campus audience; what makes news; where are the campus sources for news; how to interview and cover assignments; how to start writing and structure the information; legal and ethical issues in journalism; how to verify a story. Each student will also be assigned stories to report and write. One semester, 3 credits.

## 200 Integrative Course for Women's Studies

 An introduction to basic Women's Studies, concepts and theories, drawing on methodologies and content of multiple disciplines. The course will explore differences as well as commonalities of women's experiences and will provide a foundation for more advanced work in Women's Studies. One semester, 3 credits.
## 225, 226 Arabs and Muslims

The course traces the rise of Islam from Mohammed to the Ottoman Empire, along with analyses of the contemporary scene in the Arab World. Two semesters, 3 credits each.

## 241* Sport, Play, and Ritual

This course attempts to study the role of sport, play, and leisure in the religious life of the individual and the community at large. Some of the important questions to be investigated are: What role does sport play in spiritual life? Is it making life more meaningful? What does this mean to contemporary religion? January, 4 credits.

## 345 An Introduction to Denmark

An introduction to life in Denmark, Danish history, politics, economics, culture, social policy and life-style, as preparation for a semester in Copenhagen. One semester, 1 credit.

## Natural Science

## 200* Physical Science for Teachers

An introductory course covering the basic principles of the physical sciences, with emphasis on the fields of chemistry and physics. Designed for students who are obtaining a Multiple Subjects Credential. Prerequisite: EDUC 402 or CHDV 105 or concurrent enrollment. One semester, 2 credits.

## International Studies

Leslie Howard (Sociology)
Joyce Kaufman (Political Science) Coordinator
Michael McBride (Political Science, Study Abroad Director)
Doreen O'Connor-Gomez (Modern Languages and Literatures)
Stephen Overturf (Economics)
Haw-Jan Wu (Business Administration)

rhe International Studies major allows students to explore international issues from a broader perspective than that of a single discipline. The major is appropriate for students who wish to pursue careers in international business, government, nonprofit settings, law, or journalism or to pursue graduate study in such fields as economics, history, political science, and anthropology. The program includes a broad overview of international and comparative studies and the development of relevant analytical skills through core courses in anthropology, economics, political science, and related disciplines. These disciplinary perspectives are complemented by courses, language acquisition, and study abroad relevant to a selected region (East Asia, Europe, or Latin America). A Senior Project serves to integrate the various aspects of the major. A minor in a related discipline is encouraged as a complement to the International Studies major.

## Guidelines for a Major in International Studies

## I. General Core Courses

A. Required courses:

Peoples of the World, ANTH 210, 211, 213, 214, 3 credits
International Economics, ECON 380, 3 credits
International Relations, PLSC 220, 3 credits
B. Elective Courses in International, Comparative, and Theoretical Perspectives: At least nine credits from at least two disciplines are to be taken from among the following. Students are encouraged to include ECON 383 and/or PLSC 240.
Myth, Symbol, and Meaning, ANTH 307, 3 credits
Male and Female, ANTH 327, 3 credits
Child in Other Cultures, ANTH 374, 3 credits
Managing Multinational Corporations, BSAD 333, 4 credits. International Business, BSAD 350, 3 credits.
International Marketing, BSAD 423, 3 credits
Intermediate Macro Theory, ECON 300, 3 credits
History of Economic Thought, ECON 315, 3 credits
Comparative Economic Systems, ECON 383, 3 credits
History and Theory Seminar, HIST 483, 3 credits
Contemporary Social Philosophy, PHIL 340, 3 credits
Model UN Conference, PLSC 28, 1-2 credits
Comparative Politics, PLSC 240, 3 credits
Warfare: In Pursuit of Military Security, PLSC 365, 4 credits
Seminar in International Relations, PLSC 420,2-3 credits

Military Strategy and Arms Control, PLSC 430, 3 credits
Seminar in Political Theory, PLSC 480, 2-3 credits
Contemporary Ethical Issues, REL 340, 3 credits
Modern Society, SOC 350, 3 credits
Social Class and Inequality, SOC 352, 3 credits
Comparative Urban Development, SOC 356, 3 credits
Population Problems and Policy, SOC 358, 3 credits
Social Theory in Social Context, SOC 402, 3 credits
C. Research Methodology from Selected Discipline:

At least one course to be taken from among the following, preferably prior to Study Abroad.
Field Research: Crossing Cultural Boundaries, ANTH 311, 3-4 credits
Introduction to Econometrics, ECON 305, 3 credits
Current Economic Problems, ECON 330, 4 credits
Critical Procedures in Language and Literature, ENGL 400, 3 credits
Historical Methods, HIST 380, 3 credits
Political Methodology and Serious Games, PLSC 388, 3 credits
Experimental Psychology, PSYC 312, 3 credits
Approaches to the Study of Religion, REL 361, 3 credits
Approaches to Social Research, SOC 310, 3 credits

## II. Regional Studies in East Asia, Europe, or Latin America

A. Regional Courses:

Each student shall complete 18 credits in additional humanities and social science courses focused on the selected region (East Asia, Europe, or Latin America), with no more than 9 of these units coming from one discipline. These courses should deal with more than one country in the region; should include at least one relevant religion course; and should provide both familiarity with the region today and understanding of cultural and historical background. Typically, some of this work will be done in the course of study abroad. Each student will develop a relevant selection of approved regional courses in consultation with his/her faculty advisor and the International Studies Council.
B. Language Requirement:

Completion of the intermediate level, or approved equivalent, in a major language approved by the International Studies Council as central to one of the countries in the Selected Region.
C. Study Abroad:

Students are required to participate in a structured academic study program located in their selected region and approved in advance by the International Studies Council and the Registrar.

## III. Senior Project

Each student will complete a major research paper ( 3 credits) on a topic and using a methodology agreed upon in consultation with his/her faculty advisor and the International Studies Council. With such approval, students in the Whittier Scholars Program may use the Senior Project to meet this requirement.

## Latin American Studies Program

Rafael Chabrán (Modern Languages and Literatures)
Deborah Norden (Political Science)
Gustavo Geirola (Modern Languages and Literatures)
Leslie Howard (Sociology)
Danilo Lozano (Music)
Doreen O'Connor-Gomez (Modern Languages and Literatures), Coordinator
José Orozco (History)

olorth Americans live in an increasingly interdependent world, and knowledge about our neighbors is crucial to being liberally educated. Much interest is directed toward Latin America because of its close economic and social ties with the United States, as well as the significance of political events in the region for the United States.

Whittier College's Latin American Studies minor is designed to respond to the considerable interest in understanding more about Latin American societies as well as to serve as a pre-professional program to prepare students for graduate study, service in government, or work in community development. The Latin American Studies minor is designed to complement work in a major and may be of special interest to those majoring in areas such as Business Administration, Economics, Foreign Language and Literature, History, Political Science, and Sociology.

## Guidelines for the Minor in Latin American Studies

Students may complete the minor in Latin American Studies by meeting the following requirements:

Completion of 18 units in approved core and elective courses, plus competency in Spanish at the intermediate level or the equivalent. The 18 units of courses must include three credits each from the Latin American History, Latin American Politics and Ideology, and Latin American Cultural Expression areas. The remaining units may come from any of the four areas listed below, with a three-unit limit in the elective category. Field Work/Internship/ Overseas Study may be substituted for listed courses, with prior approval of the Latin American Studies Committee. The SOCCIS Seminar on Latin America, offered each spring on a different aspect of Latin America, may be used to satisfy an appropriate requirement selection for the minor. All minors must be approved by the Latin American Studies Committee. New courses may be added periodically to the offerings.
Latin American History (at least 3 credits):
Introduction to Latin America, HIST 242, 3 credits
Colonial Spanish America, HIST 340, 3 credits
Mexican Revolution, HIST 344, 3 credits
South America, HIST 246, 3 credits
Latin American Politics and Ideology (at least 3 credits):
Latin American Politics, PLSC 352, 3 credits
Latin American Liberation Theologies, REL 350, 3 credits

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Latin American Cultural Expression (at least 3 credits):
    Colonial Latin American Art, ART 308, 3 credits.
    Peoples of the World: Latin America, ANTH 214, 3 credits
    Music of Latin America, MUS 74, 3 credits.
    South American Religions, REL 203, 3 credits
    Meso American Religions, REL 234, 3 credits
    Marginal Women and Religion, REL 253, 3 credits
    Sociology of Development, SOC 357, 3 Credits
    Latin American Performance Experience, SPAN 10, 2 credit
    Advanced Conversation and Composition, SPAN 320, 3 credits
    Hispanic Culture and Civilization, SPAN 325, 3 credits
    Quests and Discoveries in Hispanic Literatures, SPAN 426, 3 credits
    Latin American Theatre, SPAN 440, 3 credits
    Readings in Hispanic Poetry, SPAN 450, 3 credits
    Latin American Voices: The Twentieth Century, SPAN 470, 3 credits
    Major Hispanic Authors, SPAN 480, 3 credits
    Revisiting the Canon in Latin American Literature, SPAN 481, 3 credits
    Literature, Cinema, and Culture, SPAN 483, 3 credits
    Hispanic Avant-garde Literatures, SPAN 484, 3 credits
    Subaltern Voices, Diversity and Marginalization, SPAN 485, 3 credits
Electives that provide conceptual tools for understanding Latin America. Only one 3-
credit course of the following courses may be counted toward the 18 credits:
    International Economics, ECON 380, 3 credits
    Comparative Economic Systems, ECON 383, 3 credits
    Introduction to Comparative Politics, PLSC 240, 3 credits
    Seminar in Comparative Politics, PLSC 440, 3 credits
    Comparative Urban Development, SOC 356, 3 credits
    Social Class and Inequality, SOC 352, 3 credits
    Population Problems and Policy, SOC 358, 3 credits
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## Study Abroad:

The Latin American Studies Committee encourages study for a semester in a Spanishspeaking country. Please consult with members of the committee for specific program information.

## The Liberal Education Program

R. Fritz Smith (Mathematics), Associate Academic Dean and Director of the Liberal Education Program

Liberal Education Requirements for Students Matriculating After Summer 1998 The New Liberal Education Curriculum

## Statement of Educational Values and Objectives:

he Whittier College community shares a love of learning and a delight in the life of the mind; these are at the heart of the Whittier College liberal arts education. A liberally educated person develops an informed self-awareness through a lifelong commitment to learning and through responsible membership in the multiple communities and contexts that make up the environment. (This environment may be understood in terms of time, place, and perspective, and may include physical, social, and spiritual aspects.) Responsible membership implies the ability to effect change in one's environment. In the service of these values, the curriculum should provide the following primary learning objectives.

## Primary Learning Objectives:

I. Students should appreciate that education is a creative, collaborative, and transformative experience. The curriculum should provide a framework for students' awareness of their intellectual, physical, moral, and cultural development.
II. Students should learn to think and articulate their thoughts critically (meaning to define, analyze, and synthesize) using a variety of methods and technologies.
III. Students should develop an understanding of, and competency in, the use of signs and symbols in constructing, creating, perceiving, and conveying meaning.
IV. Students should develop the capacity to entertain multiple perspectives and interpretations.
V. Students should develop the ability to understand the convergence and divergence of different fields of knowledge. Students should develop familiarity with essential concepts in major fields, a considerable knowledge of at least one field, and the ability to make connections across fields.
VI. Students should develop skills and methods necessary for systematic investigations.
VII. Students should develop an understanding of themselves and others in relation to physical, historical, cultural, and global contexts.

## New Liberal Education Program Requirements (as of Summer 1998)

Courses for the new Liberal Education Program must be taken from approved lists. Liberal Education requirements can be met only with Whittier College courses.
Adjustments for transfer credits awarded prior to matriculation are noted on the Liberal
Education Evaluation form.

## Content Areas

## Units

1. Freshman Writing Experience a. Freshman Writing Seminar (FWS)

## The Liberal Education Program

b. Writing Intensive Course (WIC) 3

Courses taken to satisfy lb must be taken after completion of INTD 100.
2. Quantitative Reasoning (QR) 3-4
3. Natural Science
a. Introductory Laboratory Science (ILS) 4
b. Science and Math in Context (SMC) 4
4. Civilizations and Cultures,
a. African, Asian, or Latin American (AFC, ASC, LAC) 6
b. American (ACC) 3
c. European (ECC) 3

Within the twelve units of category 4 , courses must be taken from a minimum of two divisions, with no more than two courses from the same discipline. Within 4 a the courses must represent two different geographical regions.
5. Individual in a Social Context (ISC) 2

The ISC requirement may be satisfied by a single course of two or more units, or by two courses of one unit each.
6. International or Global Perspectives (IGP) 3
7. Comparative Knowledge (CK) 6

Paired or team-taught courses from two different disciplines.
8. Creative and Kinesthetic Performance
a. Creative Arts (CA) 2
b. Kinesthetic Performance
i. Wellness (KW) 1
ii. Performance (KP) 1

The Creative Arts requirement may be satisfied by a single course of two or more units or by two courses of one unit each. Courses taken to satisfy 8 b.ii must be taken after completion of PER 1.

Once a student has matriculated at Whittier College, course work taken at other institutions (except Whittier College Overseas programs) cannot be used to satisfy the new Liberal Education requirements.

Courses taken in a semester-length study-abroad program may be applied to the new Liberal Education requirements, as specified in the catalog description of Whittier Foreign Study Programs. Courses approved for study in Copenhagen are published annually by the Liberal Education Committee, while courses for other programs must be approved in advance by the Registrar, based on guidelines developed by the Liberal Education Committee.

Credit received for Advanced Placement (AP) from high school may be used to satisfy Liberal Education requirements.

AP credit in Art History will satisfy the European requirement.
AP credit in Biology, Chemistry, or Physics will satisfy the Introductory Laboratory Science requirement.
AP credit in Economics will satisfy the Individual and Social Context requirement. AP credit in English will satisfy the Freshman Writing Seminar requirement.
AP credit in History will satisfy either the American and/or European requirement.
AP credit in Mathematics will satisfy the Quantitative Reasoning requirement.
AP credit in Music or Studio Art will satisfy the Creative Arts requirement.
Credit received for International Baccalaureate (IBC) from high school may be used to satisfy Liberal Education requirements in the same way as Advanced Placement credit.

Courses which meet the guidelines for more than one category may satisfy requirements for each of those categories concurrently. Courses used to satisfy Liberal Education requirements may also be used to satisfy requirements in other areas-such as majors, minors, and credentialing programs.

When a student fails to complete satisfactorily a paired set of courses, the student must then complete a different pair to satisfy that part of the Liberal Education Program.

A student may satisfy both high school deficiencies and Liberal Education requirements with the same course.

## Graduation Requirements for Students with Transfer Credits

All requirements for graduation apply, as stipulated above, with the exceptions indicated below.

The Registrar of Whittier College will determine which credits transferred from another institution may be used to satisfy each requirement.

Adjustments of the Graduation Requirements (based on Undergraduate Standing at entrance):

Liberal Education Requirements: All students with transfer credits, regardless of the number of transfer credits that satisfy Liberal Education Program requirements, must complete one set of paired courses or a team-taught sequence in Comparative Knowledge at Whittier.

At least twelve credits in the major must be taken at Whittier College.

## Curriculum Transition Statement

The guiding principle is that no student's normal progress toward graduation will be jeopardized by the new Liberal Education Program.

All students matriculating before Summer 1998 will fulfill the Liberal Education requirements in place prior to Fall 1998, with the exceptions noted below.

All students matriculating after Spring 1998 will fulfill the new Liberal Education requirements, in place as of Fall 1998.

## Transitional Liberal Education Requirements for Students Matriculating Prior to Summer 1998

Courses for the Liberal Education Program must be taken from approved lists.
Adjustments for transfer students are noted on their Liberal Education Evaluation forms. Content Areas Units

1. Freshman Writing Seminar (FWS) 3
2. Quantitative Reasoning (QR) 3 (Mathematics)
3. Natural Science I 4 (Year-long sequence)

Natural Science II or SMC
4
OR
Introductory Lab Science (ILS)
4 (New in Fall 1998)
Science and Math in Context (SMC)
4 (New in Fall 1998)
4. Fine Arts (FA)

3
5. Humanities (HU) 3

Pair Requirement: Two Pairs from any two categories: European and North American Civilizations (ENAC); Asian, African and Latin American Civilizations (AALAC); Contemporary Society and the Individual (CSI); and Comparative Knowledge (CK). In all cases, courses used to satisfy each of the areas must be from two different disciplines.

Courses in categories 6, 7 , or 8 may be used to meet the Pair requirement.
Categories 6, 7, and 8 can be met in any combination of the following ways:
a. Any AALAC, ENAC, or CSI pair.
b. Courses that were designated (and are now listed) as satisfying those areas prior to Fall 1998.
c. Courses designated in each of these areas as of Fall 1998 (in the new Liberal Education requirements):
6. African, Asian, and Latin 3

American Civilizations (AALAC) 3
7. American and European Civilizations 3 (ENAC, ACC, or ECC) 3
8. Contemporary Society 3
and the Individual (CSI or ISC) 3 (ISC = Individual in a Social Context)
9. Experiential Course Requirement 4 At least four experiential courses (those numbered between 10 and 69) are required for graduation. No more than 16 such credits may be used to satisfy the 120 credit minimum for graduation. No more than two experiential courses may be taken in any one semester.
Once a student has matriculated at Whittier College, course work taken at other institutions (except Whittier College Overseas programs) cannot be used to satisfy Liberal Education requirements.

Courses taken in a semester-length study-abroad program may be applied to Liberal Education requirements, as specified in the catalog description of Whittier Foreign Study Programs. Courses approved for study in Copenhagen are published annually by the Liberal Education Committee, while courses for other programs must be approved in advance by the Registrar, based on guidelines developed by the Liberal Education Committee.

One course may not be used to meet two Liberal Education requirements.
When a student fails to complete satisfactorily one of a paired set of courses, no Liberal Education credit will be given, although the successfully completed course will count toward graduation. The student must then complete a different pair to satisfy that part of the Liberal Education Program.

Students entering the College after Spring 1987 must take their Humanities and Fine Arts courses in different disciplines.

Credit received for Advanced Placement (A.P.) from high school does not satisfy Liberal Education requirements, with the exception that students entering the College after spring 1989 will be able to count A.P. calculus credit as meeting the Liberal Education requirement in Mathematics. In addition, transfer calculus credit brought to Whittier by freshmen will fulfill the Liberal Education requirement in Mathematics.

A student may satisfy both high school deficiencies and Liberal Education requirements with the same course.

## Foreign Study and Liberal Education

Students who matriculated after the summer of 1998 may satisfy Liberal Education requirements through courses taken on an approved semester-length study abroad program. Course work satisfying Liberal Education requirements must be approved in advanced by the Whittier College Registrar. The Comparative Knowledge requirement may not be satisfied through study abroad.

## Mathematics

Abi Fattahi<br>David Garland<br>Sharad Keny<br>Michael Leen, Chair<br>Jeffrey Lutgen<br>R. Fritz Smith

raduates with a mathematics major generally work in business or industry, teach, or pursue graduate studies in mathematics or operations research. The Mathematics Department offers courses designed to prepare majors for their pursuits and courses designed to serve the needs of non-mathematics majors. Given their reputation for improving one's logical reasoning abilities, mathematics courses attract many non-mathematical majors.

All new students, except those with AP calculus scores of 4 or higher, must take the Mathematics Placement Examination to determine their mathematical preparation for placement in Whittier College mathematics courses.

The Liberal Education Program mathematics requirement can be satisfied by taking MATH $75,85,139$ A, 141A, 141B, 241 or by advanced placement credit.

Students in Chemistry, Mathematics, Physics, or Pre-Engineering should begin the calculus sequence in the freshman year. Those not prepared to do so during the first term should begin with 76 or 85 , or 139A, depending on their preparation.

The department also participates in an interdisciplinary Mathematics-Business major.

## Guidelines for a Major in Mathematics

The department of Mathematics offers a major in Mathematics with 3 different emphases: Pure Mathematics, Applied Mathematics, and Teaching Credential in Mathematics. Students graduating with a Major in Mathematics must have an emphasis in one of these three options.

The requirements for a major in Mathematics are divided into two categories: core courses and the courses required for the selected emphasis.
I. Core Courses: These are common for majors in all emphases:

Calculus and Analytic Geometry, MATH 141A or 139AB, 141B, and 241, 12-14 credits
Mathematical Proofs and Discrete Mathematics, MATH 290AB, 4 credits
Differential Equations I, MATH 345A, 3 credits
Linear Algebra, MATH 380, 3 credits
Introduction to Analysis I, MATH 440A, 3 credits
Modern Algebra I, MATH 480A, 3 credits
Senior Seminar, MATH 491, 3 credits
Programming I, COSC 120, 3 credits
II. Required courses for different emphases:

1. Pure Mathematics:

Three credits from:

## Mathematics

Introduction to Analysis II, MATH 440B, 3 credits
Modern Algebra II, MATH 480B, 3 credits
Additional six credits selected from:
Number Theory, MATH 305, 3 credits
Probability and Statistics, MATH 315, 3 credits
Advanced Geometry, MATH 320, 3 credits
Point Set Topology, MATH 360, 3 credits
History of Mathematics, MATH 400, 3 credits
Introduction to Analysis II, MATH 440B, 3 credits
Modern Algebra II, MATH 480B, 3 credits
Additional three credits from:
Complex Variables, MATH 344, 3 credits
Differential Equations II, MATH 345B, 3 credits
Numerical Analysis, MATH 350, 3 credits
Mathematical Modeling, MATH 354, 3 credits
Quantum Mechanics, PHYS 350, 3 credits
or an additional upper division Mathematics course approved by the department.
2. Applied Mathematics:

Differential Equations II, MATH 345B, 3 credits
Mathematical Modeling, MATH 354, 3 credits
Additional three credits from:
Probability and Statistics, MATH 315, 3 credits
Complex Variables, MATH 344, 3 credits
Numerical Analysis, MATH 350, 3 credits
Additional three credits from:
Quantum Mechanics, PHYS 350, 3 credits
or another upper-division Mathematics course or an upper- division course in another department. This course must be for at least 3 credits, involve an application of mathematics to another field, and be approved by the Mathematics Department faculty.
3. Teaching Credential in Mathematics:

Probability and Statistics, MATH 315, 3 credits
Advanced Geometry, MATH 320, 3 credits
History of Mathematics, MATH 400, 3 credits
Number Theory, MATH 305, 3 credits

## Minor in Mathematics

A minor in Mathematics requires 19 credits as follows: MATH 141A,B: 8 credits. MATH 290A: 2 credits, and 9 credits of upper-division Mathematics courses.

## Course Descriptions

## 75 Quantitative Reasoning

Part of the integrated mathematics and science requirement. This course is designed to help students develop their ability to create, analyze, and communicate quantitative and scientific arguments. It will emphasize critical thinking and problem-solving skills while also giving students practice in computation and symbolic manipulation. Topics to be covered include elementary linear equations, polynomial modeling, working with and understanding graphs and graphical presentations, and elementary probability and statistics. These topics will be presented in the context of applications and models from various disciplines. (Not open to those who have had $81,85,139 \mathrm{~A}$, or 141A.) One semester, 3 credits.

## 76 College Algebra

Basic properties of real numbers, linear equations and inequalities, quadratic equations, graphs of linear equations, and inequalities, systems of linear equations, conic sections. (Not open to those who have had 81, 85, 139A or 141A.) One semester, 3 credits.

## 80 Elementary Statistics

Descriptive Statistics: descriptive measures, probability concepts, discrete random variables, normal distribution. Inferential Statistics: sampling distributions, confidence intervals, hypothesis testing, Chi-square procedures, linear regression. Emphasis on methodology rather than theory. (Not open to those who have had 315.) One semester, 3 credits.

81 Mathematics for the Management Sciences Functions, matrices, linear systems, linear programming, logarithmic and exponential functions, limits, differential calculus. Prerequisite: 75. (Not open to those who have had $85,139 \mathrm{~A}$ or 141A) One semester, 3 credits.

## 85 Precalculus Mathematics

Solutions of algebraic equations and inequalities; functions and graphs; exponential, logarithmic and trigonometric functions; plane analytic geometry. Recommended for those who plan to take the Calculus sequence but who did not score sufficiently high on the Math Placement Exam. (Not open to those who have had 81, 139A or 141A.) Prerequisite: Sufficient score on Math Placement Exam or 76. One semester, 3 credits.

## 139 A,B Integrated Precalculus/Calculus

Calculus I with a review of Precalculus. Topics include: functions of one real variable and their graphs, various types of functions (polynomials, rational functions, exponential, logarithmic, trigonometric, and discrete functions) derivatives of these functions, applications of derivatives, introduction to integrals of functions, Riemann Sums. Prerequisite: 85 or sufficient score on Math Placement Exam. Fall, 4 credits, January, 3 credits.

141 A,B, 241 Calculus and Analytic Geometry I-III Unified course in analytic geometry and calculus: progresses from functions of one real variable, their derivatives and integrals, through multivariate calculus; topics from infinite series and differential equations. Prerequisite: 85 or sufficient score on Math Placement Exam. One semester, 4 credits each.

## 290 A,B Mathematical Proofs and Discrete

 MathematicsDesigned to bridge the gap between lower-and upper-division mathematics courses. Deals with sets, applications of logic, propositional and predicate calculus, techniques of mathematical proofs, relations, functions, number system, mathematical induction, combinatorial mathematics, graph theory, algebraic structures. Prerequisite: 141A,B. One semester, 2 credits each.

## 305* Number Theory

Euclidean algorithm; fundamental theorem of arithmetic; multiplicative functions; congruences; Chinese remainder theorem; Euler, Fermat, Wilson, and Lagrange's theorems; diophantine equations. Prerequisite: 141B. One semester, 3 credits.

## 315* Probability and Statistics

Continuous random variables and their probability distributions, marginal and conditional probability distributions, functions of random variables, the Central Limit theorem, estimations; the method of maximum likelihood; hypothesis testing, power of tests, The Neyman - Pearson lemma, regression, linear statistical models, method of least squares. Prerequisite: 241. One semester, 3 credits.

## 320* Advanced Geometry

Hilbert's axioms for Euclidean geometry; nonEuclidean geometries; finite geometries;

## Mathematics

isometries in the Euclidean plane. Prerequisite: 241. One semester, 3 credits.

## 344* Complex Variables

Algebra of complex numbers, theory and applications of functions of complex variables, contour integrals, conformal mappings, and boundary value problems. Prerequisite: 241. One semester, 3 credits.

## 345* A,B Differential Equations I, II

The theory of first-and second-order ordinary differential equations including their series solutions, introduction to Laplace Transforms with applications, including the solutions of differential equations, systems of ordinary linear differential equations, introduction to Fourier Series and integrals with applications, difference equations, partial differential equations with applications, introduction to the boundary and initial value problems and their applications. Also other selected topics in ordinary and partial differential equations depending on the particular emphases of the students in the class. Prerequisite: 241 or concurrent enrollment. One semester, 3 credits each.

## 350* Numerical Analysis

Numerical solutions of non-linear equations; interpolation; curve fitting; and estimation of error. Prerequisites: 141B. One semester, 3 credits.

## 354* Mathematical Modeling

Formulation and evaluation of models; continuous and stochastic models; sources of error; accuracy, precision and robustness; mathematical techniques used in modeling; analytical and numeric solutions; optimization. Prerequisites: 141B. One semester, 3 credits.

## 360* Point Set Topology

Metric spaces, sequences, continuity, connectedness, product spaces, separation axioms, compactness, topological spaces. Prerequisite: 241. One semester, 3 credits.

## 380* Linear Algebra

Vector spaces, linear transformations, similarity, eigenvectors, diagonalization, quadratic forms. Prerequisites: 141B. One semester, 3 credits.

## 390* Topics in Mathematics

Subject of current importance in mathematics. May be repeated for credit. Variable time and credit.

## 395 Directed Studies

Credit and time arranged. Permission. May be repeated for credit. Variable credit.

## 400* History of Mathematics

Selected topics in the development of mathematics will be discussed. A good background in mathematics is needed. Prerequisite: 241 . One semester, 3 credits.

## 440* A,B Introduction to Analysis I,II

Topology of the Reals and Euclidean n-space; compact sets; Heine-Borel and BolzanoWeierstrass Theorems; connected sets; mappings; continuity and uniform continuity; differentiability; uniform convergence; power series; Inverse Function Theorem; Implicit Function Theorem; Integration. Prerequisite: 241. One semester, 3 credits each.

## 480* A,B Modern Algebra I,II

Sets, mappings, relations, operations, algebraic structures (groups, rings, fields, modules), homomorphisms, substructures, quotient structures, finite fields, field extensions, proof of impossibility of some geometric constructions using only compass and ruler, Galois Correspondence. Prerequisite: 241 and 380. One semester, 3 credits each.

## 490* Seminar in Mathematics

Topics of current interest. May be repeated for credit. Variable credit.

## 491 Senior Seminar

Develops the student's ability to learn mathematics independently and to write for a mathematical audience. Includes a significant expository or research paper and a public presentation. Must be taken in the fall semester of the senior year. Permission required. One semester, 3 credits.

## Computer Science Courses <br> COSC 120 Programming I

Introduction to computer programming in a high-level language such as Pascal or Java, emphasizing structured programming techniques, procedural methods and simple userdefined data structures. One semester, 3 credits.

## COSC 220 Programming II

Computer programming emphasizing data structures, algorithms, pointers and low-level interface. Prerequisite: COSC 120. One semester, 3 credits.

## Mathematics-Business

Michael Leen (Mathematics)
Charles R. Laine (Business Administration)

Che interdisciplinary program involving mathematics and business administration provides a strong background of concepts and techniques in the field of "quantitative management." It prepares the student for a variety of positions in banking, insurance, manufacturing, transportation, and other industries. Such positions are frequently in staff areas involving the application of quantitative methods to decision-making situations-for example, sales forecasting, demographic analysis, personnel planning, financial control, and operational analysis. This program also prepares the student for pursuing post-graduate work in the field of applied mathematics and operations research.

## Guidelines for a Major in Mathematics-Business

Students should begin the calculus sequence as early as possible in their college career and should consult with one of the faculty advisors listed above in selecting courses from the elective and recommended categories.
I. Mathematics:

Calculus and Analytic Geometry, MATH 141A or 139AB, 141B, and 241, 12 credits
Seminar in Mathematical Proofs and Discrete Mathematics, MATH 290A,B, 4 credits
Probability and Statistics, MATH 315, 3 credits
Numerical Analysis, MATH 350, 3 credits
Mathematical Modeling, MATH 354, 3 credits
Linear Algebra, MATH 380, 3 credits
II. One of the Following:

Programming I, COSC 120, 3 credits
Programming II, COSC 220, 3 credits
III. Business Administration and Economics:

Principles of Economics I, ECON 200, 3 credits
Principles of Accounting I, II, BSAD 201, 202, 6 credits
Business Finance I, BSAD 310, 3 credits
Marketing Principles, BSAD 320, 3 credits
Management and Organizational Behavior, BSAD 330, 3 credits
Management Information Systems, BSAD 341, 3 credits
Operations Management, BSAD 342, 3 credits
IV. Capstone Requirement:

Senior Seminar, MATH 491, 3 credits or
Management Strategy and Policy, BSAD 489, 3 credits.
Electives-Optional but highly recommended. Students should confer with their faculty advisors to select appropriate elective courses.

Principles of Economics II, ECON 201, 3 credits
Introduction to Econometrics, ECON 305, 3 credits
Managerial Economics, ECON 365, 3 credits
Business Finance II, BSAD 411, 3 credits
Marketing Research, BSAD 428, 3 credits
Management Strategy and Policy, BSAD 489, 3 credits

# Modern Languages and Literatures 

Rafael Chabrán<br>Marie-Magdeleine Chirol<br>Gustavo Geirola, Chair<br>Feng-Ying Ming<br>Doreen M. O'Connor-Gomez<br>Andrew Wallis


anguage study is desirable for liberally educated people because such study provides insights into other peoples and cultures. It also heightens awareness of language and generally strengthens knowledge of English. A concentration in Modern Languages and Literatures provides its graduates with both a specific area of skills and competence and a sense of the relationship between a particular discipline and the large body of knowledge that is the patrimony of liberally educated persons.

Whittier College's programs in Modern Languages and Literatures stress both practical and humanistic goals. A series of graduated language courses permits acquisition of oral, aural, and written mastery of a foreign language. A comprehensive program of courses in literature and civilization ranges from general introductory surveys through period and genre offerings, to seminars treating individual major authors. This program provides, in depth and in breadth, the experience of another culture and of its modes of thought and expression. The study of Chinese, French, Japanese, or Spanish contributes to this crucial goal by nurturing the development of a sensitive use of the verbal medium.

As educators, we believe that learning languages is essential preparation for participation in the global economy. The USA cannot be a leader in the world while our citizens are captive of their inability to communicate beyond our borders. Knowledge of other languages is essential for business and trade and, more importantly, can be an important bridge to the understanding of other countries, cultures and customs. All college students must be knowledgeable about the broader world and conversant in another language.

Modern communications technology has turned the global village from a dream to a reality. The Department's state-of-the-art language resource center and media ready classrooms bring the latest technology (CD ROM, video, World Wide Web) to the student, making the study of languages, literatures and cultures more interactive and effective.

Students should take a placement exam in September of their freshman year and also consult a faculty member in the language to determine enrollment level. The department also serves as a resource for preparation for professional careers in government, commerce, law, journalism, science, social work, women's studies, bilingual education, and teaching, among others.

Committed to interdisciplinary studies, the Department also offers several paired courses in the College's Liberal Education Program. When paired, these courses are taught in English and are numbered at the 100/200 level.

## Guidelines for a Major in French

The Major in French is a comprehensive program leading to proficiency in the four basic language skills. It stresses knowledge of the literary, cultural, historical, and sociological developments of France and the Francophone world. A Major in French requires a minimum of 30 credits, 24 of which must be at the 300 level or above. Students are encouraged to take at least one course in each of the three major genres (prose, poetry, drama). Foreign study is highly recommended. Courses taken abroad may satisfy major requirements if approved by the language faculty. The Department offers study abroad programs and summer programs in France. Six credits or more of Spanish, Japanese or Chinese are desirable for the major in French (in addition to the 30 units).

## Guidelines for a Major in Spanish

A major in Spanish requires a minimum of 30 credits, 24 of which must be at the 300 level or above. Since mastery of the Spanish language includes the cultural contexts that produced it and which it continues to influence, students are encouraged to take courses in other disciplines related to the Hispanic culture (such as History, Sociology, Music, Religion, Art and Political Science). An international experience of academic and cultural studies is highly recommended. A variety of programs in Spain and Latin America provides students with the unique opportunity to become immersed in language, culture, and academics. Courses taken abroad may satisfy major requirements only if approved in advance by the language faculty. Required courses for the major include: $320,325,355$, and 356 . Native speakers with appropriate formal coursework in Spanish may be eligible for advanced placement courses. Consult language faculty. Students are encouraged to take at least one course in each of the three major genres (Prose, Poetry, Drama) as well as courses from both the Peninsula and Latin America, both historical and contemporary. Also highly recommended is the study of another language offered at Whittier College. Six credits or more of French, Japanese or Chinese are desirable for the major in Spanish (in addition to the 30 units).

## The Chinese Program

The program in Chinese offers a sequence of language courses in standard Mandarin, as well as courses on Chinese literature, culture, and film taught in English. As the native tongue of more than 1.2 billion people, Mandarin Chinese is the primary language for approximately one fifth of the human race. Spoken and written Chinese are also widely used throughout Southeast Asia and in other parts of the world, where it has emerged as an increasingly important medium of cultural, educational, and commercial interaction. The central goal of the program in Chinese is to provide students with a level of linguistic/cultural proficiency sufficient to permit them to function successfully within a Chinese-speaking society. With a structured sequence of language/culture courses, the curriculum is designed to familiarize students with China's very long history and cultural traditions, and to prepare students for studying, traveling, doing business, and eventually working and living in a Chinese language environment. Whittier College has an exchange program with Capitol Normal University in Beijing, and students learning Chinese are encouraged to spend one semester or year in their junior year studying advanced Chinese in China.

## Guidelines for a Minor in Chinese, French, Japanese or <br> Spanish

A minor in Chinese, French, Japanese or Spanish requires a minimum of 16 credits from any level. Interested students should consult with language faculty.
All courses require a laboratory fee of $\$ 10.00$

## Course Descriptions

## Chinese Language Courses 120 Elementary Chinese I

An introductory course in standard Chinese (Mandarin) designed for students with no previous knowledge of the language. The course introduces fundamental of Chinese, including pronunciation, grammar, and Chinese characters, emphasizing the four basic language skills: listening, speaking, reading and writing. By the end of the 120/121 sequence, students will have acquired knowledge of basic grammar rules, the ability to converse, read and write on simple topics of student's daily life, and command over 500 Chinese compounds and over 300 characters. 4 hours of classroom instruction and one hour of lab per week. One semester, 4 credits.

## 121 Elementary Chinese II

A continuation of Chinese 120 with accelerated introduction of expressions, grammar, and sentence patterns designed to facilitate speaking, reading, and writing. 4 hours of classroom instruction and one hour of lab per week. One semester, 4 credits.

## 220 Intermediate Chinese I

A course designed to fulfill the personal interests and future professional goals of students who have had one year of elementary modern Chinese. Students will learn new vocabulary, sentence patterns, idiomatic expressions, proverbs, as well as insights into Chinese society, culture and customs in this course. Three hours of class, one hour of lab. One semester, 3 credits.

## 221 Intermediate Chinese II

A continuation of Chinese 220. By the end of this sequence, students are expected to be able to engage in general conversation with native speakers and to read and write essays in Chinese characters. Three hours of class, one hour of lab. One semester, 3 credits.

## Composition, Culture and Literature Courses <br> 320* Composition and Conversation

This course aims at further development of overall language proficiency through extensive reading of selected texts representing a wide variety of styles and genres, including materials from newspapers, magazines, and other documents. Classes are conducted primarily in Chinese. Prerequisite: 221, or equivalent. One semester, 3 credits.

## 325* Culture and Civilization

A survey of Chinese cultural history from the earliest times to the eve of the modern era. The development of the arts, literature, and cultural trends are among the main topics presented through reading assignments, videos, and films. Classes are conducted primarily in Chinese. Prerequisite: 221 , or equivalent. One semester, 3 credits.

## 450* Topics in Literature

A capstone literature course for students who have attained a high level of Chinese language proficiency. Students read a wide selection of representative works of major modern writers of China, Taiwan, and other Chinese communities. Topics vary by semester. May be repeated for credit. Prerequisite: 320, or equivalent. One semester, 3 credits.

## 490* Current Topics

This course includes essays introducing the social and cultural conditions of China, Taiwan, and other Chinese-speaking communities; live news broadcasts on current issues; and selected business Chinese expressions. This course bridges the gap between purely academic learning and the real world of native speakers. Emphasis is on reading, speaking, listening and writing in Chinese. Topics vary by semester. May be repeated for credit. Prerequisite: 320, or equivalent. One semester, 3 credits.

## 395/495 Directed Studies

Credit and time arranged. Permission. May be repeated for credit.

## Courses in English Translation 100 A Taste of China

This course is designed for students to get a taste of Chinese calligraphy, cooking, movie, theater, martial arts, meditation, and other folk arts. Artists, chefs, martial art and meditation masters from the Los Angeles area are invited to join student activities. Students will exhibit their calligraphy, or other related works at the end of the semester. One semester, 1-2 credits.

## 110, 310* Masterpieces from China

Representative readings in translation of Twentieth-century Chinese literatyre frimn the late-Qing dynasty to the People's Republic of China, and contemporary Taiwan. This course will offer awindow in Twentieth-century China and an introduction to the study of literature, and ask: Why do we read literature, and about different literary approaches and movements? Students are expected to examine the sociopolitical context and questions of political engagement, social justice, class, gender, race, and human rights. All readings are in English translation and no background in China or Chinese is required. One semester, 3 credits.

## 130, 330* Chinese Theater

Introduction to the practice, concepts, history, and dramatic literature from China. The course will focus on the development of the Chinese theater as it received influences from other ethnic theaters, including the Japanese, French, Spanish, and American. Hands-on experiences with the Chinese theater and interaction with theater artists in the Los Angeles area will be emphasized. One semester, 3 credits.

## 150, 350* Chinese Cinema

An introductory course to the culture, aesthetics, and socio-political background of Chinese film produced in the period from the 1930's till the present. Students will look at the cultural antecedents which influenced the Chinese filmmakers, how they manipulated the artistic forms as a means of self and the function of films both within the art form and by extension within Chinese culture-expression, in general. A more general goal of the course is to develop and refine an ability to think about and
understand culture. Films to be viewed include: To Live, Ju Dou, Changing Face, Fallen Angels, Shanghai Noon, and more.

## French Language Courses

76* Performance in French Workshop
Learn about French theatrical tradition while helping write and perform a production in French. Prerequisite 120. One semester, 1 credit.

## 100* Beginning French Language and Culture

 Experience(Whittier in Nice Summer Program)
This course is designed for students who have never studied French or who have very little knowledge of the language. Emphasis is on "survival" French. It is taught in France during the Whittier in Nice Program. No prerequisite. Summer Session, 3 credits.

## 120 Elementary French I

This course is designed for students who have never studied French, or who have placed into French 120 on the French Placement Test. It is taught in French with four hours of classroom instruction and one hour of lab per week. Immersion of students is facilitated through the use of authentic material as well as the usage of video and other technological tools (multimedia, Web). By the end of this course students should have developed basic oral and written communication skills as well as reading skills, and be acquainted with some aspects of Francophone culture. One semester, 4 credits.

## 121 Elementary French II

This course is a sequel of Elementary French I. It is taught in French with four hours of classroom instruction and one hour of lab per week. Immersion of students is facilitated through the use of authentic material as well as the usage of video and other technological tools (multimedia, Web). By the end of this course students should have further developed their communicative competence and reading skills, as well as be better acquainted with the Francophone world. Prerequisite: 120, or equivalent. One semester, 4 credits.

## Modern Languages and Literatures

## 200* Intermediate French Language and

 Culture Experience(Whittier in Nice Summer Program)
This course is intended for students who have completed the 200 language sequence at Whittier College or who already have a good command of the French language. It is taught in France during the Whittier in Nice Summer Program. Prerequisite: 121, or equivalent. Summer Session, 3 credits.

## 220 Intermediate French I

This course is a sequel of Elementary French II. It is taught in French with three hours of classroom instruction a week. It includes a brief review of the material studied in Elementary French I and II, presents more elaborate structures of the French language and culture, and introduces students to literary and contemporary readings. Three hours of class, one hour of lab. Prerequisite: 121, or equivalent. One semester, 3 credits.

## 221 Intermediate French II

Course is designed to strengthen students' competence to communicate in the French language. It is taught in French with three hours of classroom instruction. It includes a thorough review of grammar and strongly emphasizes oral and written communication. Three hours of class, one hour of lab.
Prerequisite: 220, or equivalent. One semester, 3 credits.

225 Conversation, Culture and Communication This course is designed to extend students' aural comprehension and oral expression, and to further the acquisition of a more complex vocabulary associated with contemporary issues described in newspapers, television and the Web. Prerequisite: 221, or equivalent. One semester, 3 credits.

## Composition, Culture, Commercial French, and Introduction to

 LITERATURE300* Advanced French Language and Culture Experience
(Whittier in Nice Summer Program)
Four week summer course taught in France. Emphasis on French language, contemporary culture and regional history. Class meets in the morning; afternoons reserved for excursions, experientials, activities. Students are housed in

French families. Prerequisite: 221, equivalent. Summer Session, 3 credits. May be repeated for credit.

## 310 Composition and Stylistics

Course designed to develop and refine students' writing skills on topics that are increasingly more abstract. It introduces students to the critical elements of stylistic differences and the application thereof. Prerequisite: 221 or equivalent. One semester, 3 credits.

## 315* Commercial French

Course designed to introduce students to commercial French including correspondence, and acquisition of business related vocabulary, and an understanding of successful business interactions. Prerequisite: 221 or equivalent. One semester, 3 credits.

325* French Culture and Civilization Course designed to study the evolution of French culture and civilization by establishing the links between political, social, and intellectual developments and the associated artistic and literary achievements. Prerequisite: 310, or equivalent. One semester, 3 credits.

## 326* Francophone Culture and Civilization

Course designed to introduce students to the historical formations and transformations that occurred outside France (Africa, Caribbean, Canada and Americas). Prerequisite: 310, or equivalent. One semester, 3 credits.

## Literature Courses

355* Introduction to French Literature I Survey course of French literature from the Middle Ages through the 18th century. Major literary works of writers of prose, poetry, and theater are read and discussed from both a historical and literary perspective. This course is taught in French. Students are expected to participate actively in class discussions, to give brief oral presentations, and to write short papers. Prerequisite: 310 , or equivalent. One semester, 3 credits.

## 356* Introduction to French Literature II

Survey course of French literature from the 19th to the 20th century. This course includes major works of French and Francophone writers of prose, poetry and theater. Works are read and discussed in French from both a historical and literary perspective. Students are expected to
participate actively in class discussions, to give brief oral presentations, and to write short papers. Prerequisite: 310 , or equivalent. One semester, 3 credits.

## 432* Heroes and Heroines

The 17th century in France is a period where heroines and heroes were redefined to fit a society in transition. Topics will include the transition from the Baroque to Classicism, and the evolution of dominant intellectual and political currents such as rationalism and absolutism and the redefinition of the role of masculine and feminine ideals. Prerequisite: 355,356 or equivalent. One semester, 3 credits.

435* History of Modern Novel
Course designed to provide students with a more thorough comprehension of the French and Francophone modern novel, from the 17 th to the 20th-century. It is based upon detailed analysis of literary texts and considers the sociohistorical background that contributed to the evolution of the genre. Prerequisite: 355,356 or equivalent. One semester, 3 credits.

## 453* Poetic Perspectives

Course designed to provide students with a better understanding of the 19th and 20thcentury poetic movements, from Romanticism, Parnasse and Symbolism to more contemporary expressions of the poetic genre. It includes analysis of French and Francophone poetry and presents students with analytical tools that contribute to critical thinking. Prerequisite: 355,356 or equivalent. One semester, 3 credits.

## 465* 20th-Century Theater

Course designed for students who wish to broaden their cultural and literary understanding of 20th-century theater. Works studied are representative of major authors in the history of ideas of modern French and Francophone literature. Prerequisite: 355, 356 or equivalent. One semester, 3 credits.

## 469* Nouveau Roman/Nouveau Théâtre

Course designed to acquaint students with the literary production during the 1950 's. Works studied are representative of major authors of this specific movement, such as Robbe-Grillet, Duras, Sarraute, Ionesco and Genet. Prerequisite: 355, 356 or equivalent. One semester, 3 credits.

## Other Perspectives on French and Francophone Literature <br> 473* French Cinema

This course presents the main movements and directors in French cinema. Students will be introduced to cinematographic vocabulary and they will be able to develop critical thinking through the analysis of films. Prerequisite: 355, 356 or equivalent. One semester, 3 credits.

475* Women's Portraits/Portraits de femmes Course designed to expose students to various portrayals of women, by women and by their male counterparts. Works studied are representative of different genres and centuries in French and Francophone literature. Prerequisite: 355, 356 or equivalent. One semester, 3 credits.

## 476* Performance in French

This course explores various aspects of performance in the French tradition--both as spectators studying varying types of French and Francophone theater texts and productions, and as actors in a workshop setting. Both theoretical and experiential, a major emphasis is put on creativity and collaboration to achieve the goals of the course. After working closely together to write and produce a creative work, the class's performance will be the final "exam." Prerequisite: 355, 356 or equivalent. One semester, 3 credits.

## 477* African Francophone Literature and

 CinemaCourse designed to introduce students to contemporary African literature and cinema. It is based upon detailed analysis of literary texts and of films, both addressing a variety of cultural aspects of African Francophone life. Prerequisite: 355, 356 or equivalent. One semester, 3 credits.

478* Pre and Post Revolutionary Child
This class examines developments leading to modern concepts of the child in France all the while tracing parallel ideas of identity such as selfhood, nationality, public education, welfare and gender using literature and film.
Prerequisite: 355,356 or equivalent. One semester, 3 credits.

## Modern Languages and Literatures

## 480* Love and Life until the Revolution

Students study works from the middle-ages to the Revolution and discuss the transformation of "senses and sensibilities" over time. To better understand the works of fiction, we will discuss the history and the society of the period. Prerequisite: 355,356 or equivalent. One semester, 3 credits.

## 481* Francophone-Asian Literature

This course explores the Asian influence in Francophone literatures and cultures. It exposes students to non-traditional aspects of the Francophone culture deriving from a history of complex and diverse interactions between Asia and French-speaking societies. Students will gain insight about the subject through the study of literature and films. Prerequisite: 355, 356 or equivalent. One semester, 3 credits.

## 490* Special Topics

An in-depth study of a specific period, genre, or topic (such as Francophone Writers, French Renaissance, 17th-century Moralists, Classical Theater, Enlightenment, etc.). Topics vary by semester. Prerequisite: 355,356 or equivalent. One semester, 3 credits.

## 499* Senior Thesis

A paper and oral defense in the major that will indicate the student's acquisition of the literary, the cultural and the language skills needed to pursue studies in French or Francophone literature.

## 395/495 Directed Studies

Credit and Time arranged. Permission. May be repeated for credit.

## Japanese Language Courses

10 Japanese for Business
Designed for students who anticipate using the language in business-related fields. Also introduces Japanese business manners and customs. No prerequisites. 2 credits.

## 120 Elementary Japanese I

An introductory course in simple conversation, basic grammar, reading, culture, and written Japanese (Hiragana, Katakana and simple Kanji). Four hours of class, one hour of lab. One semester, 4 credits.

## 121 Elementary Japanese II

Continuation of 120 . Basic grammar, conversation, composition and readings. Four hours of class, one hour of lab. Prerequisite: 120 or equivalent on placement exam. One semester, 4 credits.

## Spanish Language Courses

## 10 Latin American Performance Experience

An experiential class in which students explore their bodies and minds in order to explore the difficulties involved in staging a text (poem, play, short story). While students practice Spanish during rehearsals, they also explore Latin American perspectives and techniques production (from acting to performance). Prerequisite: 120, equivalent or permission. One semester, 2 credits.

## 120 Elementary Spanish I

Students are introduced to the basic principles necessary to carry out written and oral communication. Emphasis will be placed on developing the ability to use the language creatively to talk about oneself and to deal with daily situations within the Hispanic cultural context. Four hours of class, one hour of lab. Presupposes no previous study of Spanish. Not open to students who have completed more than two years of high school Spanish nor to Native Speakers. One semester, 4 credits.

## 121 Elementary Spanish II

Continuation of 120 . Basic grammar, conversation, composition and readings. Four hours of class, one hour of lab. Prerequisite: 120 or equivalent on placement exam. Not open to students who have completed more than three years of high school Spanish, nor Native Speakers. One semester, 4 credits.

## 122 Intensive Spanish

A course designed for students who have studied Spanish before but who want a comprehensive review course. As a fast-moving, intensive course focus is on learning strategies for reading, writing, and communicating in Spanish. Prerequisite: Previous knowledge of Spanish. One semester, 3 credits.

## 220 Intermediate Spanish I

A continuation of 120,121 , this class further develops the students' ability to communicate in Spanish, both orally and in writing. Students
will speak, read, and write about such topics as advice, opinions, and hypothetical situations, while at the same time gaining insights into the culture of the Hispanic world. While grammar is reviewed, this course does require a good foundation in the basic principles. Three hours of class, one hour of lab. Prerequisite: 121 or equivalent. Not open to Native Speakers. One semester, 3 credits.

## 221 Intermediate Spanish II

Continuation of 220 . Review of grammar and extensive practice in conversation, writing and reading of selected texts as well as viewing of videos on Hispanic life and culture. Three hours of class, one hour of lab. Prerequisite: 220 or equivalent. Not open to Native Speakers. One semester, 3 credits.

## 222 Spanish for Bilingual Students

A fast paced course for students whose native language is Spanish or for those with extensive exposure to the language. Prerequisite: Placement exam results or permission. One semester, 3 credits.

## 225* Chicano Literature and Cultural

 ProductionSurveys the works of Mexican-American authors of poetry, prose, and drama. Delves into questions of gender, textual interpretation, and socio-historic contexts. One semester, 3 credits.

## Composition, Culture, and <br> Introduction to Literature 310 Intensive Spanish

The class focuses on a theoretical and practical approach to Spanish grammar. The goal is to provide the students with the right skills for discerning the structure and formal beauty of the Spanish language, and its rules and its differences with English. The class explores phonology, morphology, syntax and semantics. Prerequisite: 221 or equivalent. One semester, 3 credits.

320 Advanced Composition and Conversation This course emphasizes the development of conversational skills, vocabulary expansion, pronunciation, and a review of grammatical structures. Focus is on written expression, discussion on themes related to the Spanishspeaking world, and less common grammatical constructions. Students develop the strategies and skills needed to write and speak on topics
of current and historical interest in the Hispanic world. Conducted entirely in Spanish.
Prerequisite: 221 or equivalent. One semester, 3 credits.

## 325 Hispanic Culture and Civilization

 A study of Hispanic culture from its origins to the present. A study of the diversity of Hispanic civilization, this course will examine Hispanic societies through significant areas of cultural expression, including literature, visual arts, music, and film. Conducted entirely in Spanish. Prerequisite: 320 or equivalent. One semester, 3 credits.
## 355 Introduction to Peninsular/Latin American Literature I

A survey of the most representative texts of writers of prose, poetry, and theater within the contexts of literary and sociohistorical interpretations. This course surveys the major authors and includes close readings of representative selections from 1100 to 1700 , with attention to the development of literary genres in the context of the changing cultures of Spain and Latin America. Conducted entirely in Spanish with class discussions and extensive practice writing commentaries on texts.
Designed for Spanish majors and minors. May be taken out of sequence. Prerequisite: 320 or equivalent. One semester, 3 credits.

## 356 Introduction to Latin American/ Peninsular Literature II

Continuation of 355 , this course studies trends and developments in major literary works from 1700 to the present day in both the Peninsula and Latin America. Conducted entirely in Spanish with class discussions and extensive practice writing commentaries on texts. Designed for Spanish majors and minors. May be taken out of sequence. Prerequisite: 320 or equivalent. One semester, 3 credits.

## Literature Courses <br> 410* Masterpieces from the Middle Ages to the Baroque

Representative literary works of the Medieval, Renaissance and Baroque in both Spain and Latin America. Poetic and narrative texts, in their entirety, are read for their literary, cultural and historical value. Prerequisite: 355,356 or permission. One semester, 3 credits.

## Modern Languages and Literatures

## 420* Quests and Discoveries in Hispanic Literature

Selections from the major genres of the pre colonial and colonial periods (1100-1810): indigenous codices, the chronicle of the Encounter and Conquest, lyric and epic poetry, colonial theater. Among the themes examined are: utopian images of the New World, the Hispanic "rewriting" of indigenous cultures, and the emergence of the mestizo identity in literature. This course will also consider the repercussions of the colonial era in contemporary Latin American literature and culture. Prerequisite: 355,356 or permission. One semester, 3 credits.

## 430* Spanish Peninsular Theater

This course introduces the students to the historical, sociological and dramatic developments of Spanish Peninsular Theater from the Middle Ages to most recent productions, focusing specifically on how genre and sub-genres are linked directly to social changes and political transformations in each period. Prerequisite: 355,356 or permission. One semester, 3 credits.

## 440* Latin American Theater

This course traces the development of Latin American theater from the pre colonial period to the New Popular Theater. It will focus on several problematic subjects, such as geographic parameters, themes and major trends in dramatic theory, and economic and political structures in the process of production. Detailed consideration is given to contact between languages, Native American, European and African traditions, as well as influences of experimental theater and popular culture. Prerequisite: 355,356 or permission. One semester, 3 credits.

## 450* Readings in Hispanic Poetry

This course will focus on major poets from both Spain and Latin America. Emphasis will be on textual analysis and understanding of literary trends and historical perspectives. Conducted entirely in Spanish. Prerequisite: 355,356 or permission. One semester, 3 credits.

460* Spanish Voices: The Twentieth Century
From the turn of the century to our present time, Spanish literature has enjoyed an artistic explosion, the likes of which has not been seen
since the Golden Age. A profusion of literary movements-including the Generation of '98, modernism and avant-garde-reflected the creative vibrancy of the nation even as it slipped into political and social chaos. Major works of prose, poetry and theater are analyzed for their literary innovativeness and relationship to ideological trends and social reality in contemporary Spanish letters. Prerequisite: 355, 356 or permission. One semester, 3 credits.

470* Latin American Voices: The Twentieth Century
Critical study of selected contemporary SpanishAmerican texts in light of current modes of writing and interpretation. This course will delineate the major patterns of formal and thematic development within the history of Latin American letters as well as emphasize the analysis of structural and linguistic problems posed by the texts. This course will also explore such tendencies as realism, surrealism and "magic realism," as well as works of social conscience, revolution and the national situation. Prerequisite: 355,356 or permission. One semester, 3 credits.

## 480* Major Hispanic Authors

Intensive study of the works of the most distinguished authors in the Spanish language. Authors will vary according to instructor's expertise. Prerequisite: 355,356 or permission. One semester, 3 credits.

## Other Perspectives on Literature 481* Revisiting the Canon in Peninsular and Latin American Literature

This course is designed to give students the tools necessary to read the major canonical works of Spanish and Latin American literature in order to rebuild the process through which they represent nationality, class, sexual dissidence, and ethnic issues. Prerequisite: 355, 356 or permission. One semester, 3 credits.

## 482* Literary Criticism

Major approaches and critical assumptions in the history of Spanish literary criticism from the colonial period to modern times. Prerequisite: 355,356 or permission. One semester, 3 credits.

## Modern Languages and Literatures

483* Cinema, Culture and Literature
An examination of the complex relationships between literary works, their cinematic realization, and film studies in both Spain and Latin America. Prerequisite: 355,356 or permission. One semester, 3 credits.

## 484* Hispanic Avant-garde Literature

 Focusing on the literary production in the historical avant-garde during the 1920's, and its revival in the experimental writing of the 1960's, this course introduces the student to the historical, sociological, and aesthetic developments of Spanish Peninsular and Latin American literature through a variety of texts (plays, novels, poetry) in their close relationship to music and the pictorial arts. Prerequisite: 355, 356 or permission. One semester, 3 credits.485* Subaltern Voices, Diversity and Marginalization
This course explores literature and cultural production in Spain, Latin America and Hispanic American works from diverse theoretical approaches: feminism, cultural theory, subaltern status, and gay and lesbian studies. Students will examine how texts redefine literary forms when writing confronts the process of empowerment of minorities through racial, ethnic, and textual terms. Prerequisite: 355, 356 or permission. One semester, 3 credits.

## 390/490* Special Topics

Close readings and seminar discussions aim to explore the reception of both classic and contemporary themes of literary expression. Examples: The Novel of the Mexican Revolution; Latin American Women Writers; Hispanic Popular Culture; The Mexican Muse/La Musa Mexicana. Topics vary by semester. May be repeated for credit.
Prerequisite: 355, 356 or permission. One semester, 3 credits.

395/495 Directed Studies.
Credit and time arranged. Permission. May be repeated for credit.

## Music

\author{
Stephen A. Gothold, Chair <br> Danilo Lozano <br> Teresa LeVelle <br> David J. Muller <br> ```
Artists-in-Residence: <br> Paul Da Silva (Piano) <br> Burnette Dillon (Trumpet) <br> Theresa Dimond (Percussion) <br> Jean Gothold (Voice) <br> Leslie Ho (Violin) <br> Danilo Lozano (Flute) <br> David Muller (Bassoon) <br> Diane Muller (Horn) <br> Donna Nesheim (Voice) <br> Frances Nobert (Piano and Organ) <br> David Pircher (Guitar) <br> Joseph Stone (Oboe and Saxophone) <br> Bob Wirtz (Bass and Bass Guitar) <br> Anne Young (Clarinet and Recorder)

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711 students will find in music a varied and enriching program in performance and study. Those with a background in an instrument or in voice are encouraged to consider a major. Exceptional opportunities for both solo and ensemble performance are available, and all students are eligible to audition for membership in the College Choir and in instrumental ensembles. Whittier students may also participate for credit in the Rio Hondo Symphony and the Chorale Bel Canto, strong community ensembles under professional leadership.

Individual instruction in voice and instruments is offered at all levels of proficiency by an outstanding artist faculty. Class instruction is also available in piano, voice, and guitar.

The Whittier College Music Department offers preparation for a wide range of career opportunities, and students with serious aspirations in music are encouraged to consider a major. In addition to applied music, instruction is offered in composition, conducting, music education, music literature and materials, and theory. An electronic piano and music technology lab is available for student use and is integrated in several course offerings. The lab features eight Yamaha Clavinova 930 pianos integrated with multiple computer workstations. Students may also develop areas of specialization or individual projects under faculty supervision in related fields such as church music, management, musicology, ethnomusicology, music industries, and music theater.

MUSIC

\section*{Guidelines for a Major in Music}

Students selecting Music as a major have an option of three different tracks:
Performance, Music Literature and Materials, or Music Education.
Core Courses for All Three Tracks (28 Credits):
Introduction to Music Theory and Musicianship, MUS 70, 3 credits
Harmony I, II, III, MUS 100H, 200H, 201H, 9 credits
Musicianship, I, II, III, MUS 100M, 200M, 201M, 3 credits
Intermediate Piano I, MUS 12 (must be taken concurrently with MUS 100 H , and
100 M . A student may be exempt from Intermediate Piano through testing.), 1 credit
Music History I, II, MUS 203 and MUS 204, 6 credits
Upper-division Music History course, 3 credits
Non-Western Music course, 3 credits
Concert Attendance: Attendance at Music Department sponsored events is a component of all music department classes.

Additional Requirements for Performance (20 Credits):
This track is for the person preparing for a professional performance career. Students must audition to be accepted into the program. Faculty review will ascertain progress and confirm continuation in the track.

Private Instruction (must be taken every semester), 8 credits
Ensembles (Wind, String, Choral; four semesters required). The appropriate
ensemble will be determined by the Music Department, 8 credits
Choral or Instrumental Conducting, MUS 305 or MUS 306, 2 credits
Upper-division music elective, 2 credits
Half recital in the Junior Year
Full recital in the Senior Year
Additional Requirements for Music Literature and Materials (18 credits):
Private Instruction, 4 credits
Ensembles (Wind, String, Choral; four semesters required). The appropriate
ensemble will be determined by the Music Department, 4 credits
Orchestration, MUS 300, 2 credits
Counterpoint, MUS 302, 3 credits
Composition, MUS 303, 2 credits
Upper-division Music History (in addition to Core requirement), 3 credits
Additional Requirements for Music Education (20 credits):
Private Instruction, 2 credits
Ensembles (Wind, String, Choral; four semesters required). The appropriate
ensemble will be determined by the Music Department, 4 credits
Orchestration, MUS 300, 2 credits
Choral or Instrumental Conducting, MUS 305 or MUS 306, 2 credits
Instrumental Methods (Select three from Woodwind, Brass, Percussion and Strings.), 6 credits

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Two courses chosen from the following: \\ Choral Music Methods, MUS 351, 2 credits \\ Instrumental Music Methods, MUS 352, 2 credits \\ Elementary Music Methods, MUS 350, 2 credits
}

\section*{Proficiencies}

All music majors must pass sight-singing, ear training and piano proficiency examinations before graduation. These skills will be tested during class in the two-year Harmony/Musicianship sequence. Students who do not pass the piano proficiency upon entrance to the College must enroll in Intermediate Piano Class concurrently with Harmony/Musicianship, and continue to enroll in piano classes or private instruction until the proficiency is at an acceptable level.

\section*{Guidelines for a Minor in Music}

A minimum of 19 credits including: Introduction to Music Theory and Musicianship, MUS 70, Harmony I, MUS 100H and Musicianship I, MUS 100M, 7 credits; Music History I, II, MUS 203 and 204, 6 credits; Non-Western Music course, 3 credits; Private Instruction, MUS 198, 1 credit; Ensembles (Wind, String, Choral; two semesters required), 2 credits. Music minors are expected to participate in departmental activities and to attend music department performances. A minor must be declared upon enrolling in Music History.

\section*{Course Descriptions}

10 Piano Class for Beginners I
Elements of notation and keyboard practice, technique, basic concepts, solo and ensemble playing. One semester, 1 credit.

\section*{11 Piano Class for Beginners II}

Continuation of skills development, emphasizing technique, interpretation, and reading music. Prerequisite: 10 or permission. One semester, 1 credit.

\section*{12 Intermediate Piano I}

Expansion of keyboard skills with emphasis on technical growth, reading, and repertoire. Prerequisite: 11 or permission. One semester, 1 credit.

\section*{13 Intermediate Piano II}

Expansion of keyboard skills with emphasis on technical growth, reading, and repertoire. Prerequisite: 12 or permission. May be repeated for credit. One semester, 1 credit.

\section*{14 Voice Class for Beginners}

Singing, the mechanism and the technique; vocal exercises and song literature to develop and control the voice. One semester, 1 credit.

15 Voice Class for Beginners II
Continuation of vocal development; related study of song literature of all style periods, Renaissance to Broadway. Permission. May be repeated for credit. One semester, 1 credit.

16, 17 Beginning Guitar Class I, II Study of basic playing technique in a classroom situation. Skills covered are basic accompanimental technique, tablature, staff notation, and simple melody playing. No previous guitar experience necessary. Open to all students. Two semesters, 1 credit each.

\section*{70 Introduction to Music Theory and Musicianship}

Introduction to the language of music: notation, rhythm, scales, intervals, melody and chords. Development of musical skills through rhythmic execution, sight singing and basic keyboard facility. Required of majors and minors, encouraged for students in College ensembles, open to all students. One semester, 3 credits.

\section*{71 Music in History}

The history and literature of music, emphasizing listening; characteristics of the major style periods are demonstrated in rhythm, melody,
harmony, form, and tone color. May not apply to major in music. One semester, 3 credits.

\section*{74 Music of Latin America}

Provides an historical and philosophical survey of music in Latin America, in addition to a basic analysis of generic aspects of origins, influences, style, and development within that geographical area. Discussion of regional folkstyles, of the indigenous factor and popular trends (both traditional and progressive) and of the state of music among the Latin populations of the United States. This class will provide an overall understanding of Latin American music aesthetic and culture. One semester, 3 credits.

\section*{75 Music of Africa}

Survey of sub-Saharan traditional and contemporary music cultures of Africa. This course examines the musical and extramusical forces that shape, maintain, and perpetuate Africa's musical and cultural expression. Discussion on the general characteristics, concepts, and ethnomusicalogical approach to the organization of sound and its meanings will be emphasized. One semester, 3 credits.

\section*{76 A World of Music}

Introduction to the musics of non-Western cultures. Course discussions will focus on the music-cultures by geographical regions and socio-cultural performance context. Basic theories and methodologies of ethnomusicology, functions of music in society, and general musical characteristics and concepts are examined. One semester, 3 credits.

\section*{77* Approachable Opera}

After establishing a musical vocabulary, useful in describing and analyzing music from a listener's perspective, the class will embark on a survey of Western opera. The diverse operas will be studied in their entirety and viewed in their historical context. Class members will attend a live operatic performance (extra fee required) One semester, 3 credits.

\section*{100H Harmony I}

The purpose of this course is to develop a deeper understanding of common-practice melody, harmony, and voice leading, and to demonstrate their analytical and compositional uses. Music majors and minors in MUS 100 H must enroll concurrently in MUS 100M. Prerequisite: 70 or permission. One semester, 3 credits.

\section*{100M Musicianship I}

The purpose of this course is to develop sight singing and dictation skills necessary in the performance and teaching of tonal music. Music majors and minors must enroll concurrently in MUS 100 H . Prerequisite: 70 or permission. One semester, 1 credit.

\section*{102 History of Jazz}

A survey of jazz in America from the late 19th Century to the present. Includes the field holler, blues, dixieland, swing, bop progressive, and jazz/rock fusion. One semester, 3 credits.

\section*{103 American Popular Music}

This course examines the social and parallel musical development of postwar United States. American popular music will not be viewed as a trend in contemporary society, but as an expression: of commodification, of the incorporation of experience, authenticity, and subjectivity (ideology), of textual schizophrenia, of the postmodern disappearance of reality, and of new forms of cultural resistance. One semester, 3 credits.

\section*{105* Women and Music}

Examine the work of women in Western music from the Middle Ages to the present. Study women's roles as composers, performers, teachers, conductors and participants in independent musical institutions. Consider historical forces which permitted or encouraged them to flourish in certain times and places and not in others. Field trips. One semester, 3 credits.

\section*{200H* Harmony II}

The purpose of this course is to develop a deeper understanding of common-practice melody, harmony, voice leading, and musical form, and to demonstrate their analytical and compositional uses. Music majors and minors in MUS 200H must enroll concurrently in MUS 200M. Prerequisite: 100 H . One semester, 3 credits.

\section*{200M* Musicianship II}

The purpose of this course is to develop sight singing and dictation skills necessary in the performance and teaching of tonal music. Music majors and minors must enroll concurrently in MUS 200 H . Prerequisite: 100 M or permission. One semester, 1 credit.

\section*{201H* Harmony III}

The purpose of this course is to develop a deeper understanding of common-practice melody,
harmony, voice leading, and musical form, to demonstrate their analytical and compositional uses, and to introduce nontonal musical practices. Music majors and minors in MUS 201H must enroll concurrently in MUS 201M. Prerequisite: 200 H . One semester, 3 credits.

\section*{201M* Musicianship III}

The purpose of this course is to develop sight singing and dictation skills necessary to perform and teach tonal and nontonal music. Music majors and minors must enroll concurrently in MUS 201H. Prerequisite: MUS 200M or permission. One semester, 1 credit.

\section*{203* Music History I}

Understanding music through score study and guided listening; principal forms, structures and compositional techniques in instrumental and vocal music from Medieval through Baroque periods. Prerequisite: 101. One semester, 3 credits.

\section*{204* Music History II}

Music and its development in Western civilization from 1750 to the present; acquaintance with formal and stylistic problems through representative works; understanding musical concepts in their historical and cultural contexts. Prerequisite: 203. One semester, 3 credits.

\section*{300* Orchestration}

The purpose of this course is to understand the properties of string, woodwind, brass, and percussion instruments. To understand scoring procedures for small and large ensembles using the above instruments. Prerequisite: 200H. One semester, 2 credits.

\section*{301* Twentieth Century Music}

History, literature, and theory; analysis and composition based on resources from Debussy to the present. Prerequisite: 204. One semester, 3 credits.

\section*{302* Counterpoint}

Two- and three-voice counterpoint in 18th Century style; basic techniques in contrapuntal writing; composition of an invention, fugue, and other forms of the period. Prerequisite: 202 or permission. One semester, 3 credits.

\section*{303* Composition}

Analysis of classic forms and their use in contemporary styles; original compositions according to technique of individual student. Prerequisite: 202. One semester, 2 credits.

\section*{305* Choral Conducting}

Fundamentals of conducting and choral technique; demonstration and individual practice; score reading, performance, and stylistic analysis. Permission. One semester, 2 credits.

\section*{306* Instrumental Conducting}

Score reading and baton technique; study of orchestral literature with supervised experience. Permission. One semester, 2 credits.

\section*{390, 490 Current Topics in Music}

Variable credits. Permission. May be repeated for credit.

\section*{395, 495 Directed Studies}

Credit and time arranged. Permission. May be repeated for credit.

\section*{Music Education}

\section*{350* Elementary Music Methods}

Equips the elementary teacher with essential methods and techniques. One semester, 2 credits.

\section*{351* Choral Music Methods}

Preparation for work with vocal groups in junior and senior high school. Emphasis on planning, organization, rehearsal techniques, and teaching strategies. One semester, 2 credits.

\section*{352* Instrumental Music Methods}

Organizing and scheduling the instrumental program; materials and techniques for the beginning and intermediate instrumental class. One semester, 2 credits.

\section*{353* Woodwind Instruments}

Emphasis on flute and clarinet as basic to fingering and embouchure problems; class methods and procedures; One semester, 2 credits.

\section*{354* Brass and Slide Instruments}

Emphasis on valve instruments, usually trumpet and trombone; ensemble materials. One semester, 2 credits.

\section*{355* String Instruments}

Techniques of class instructor, materials for string ensembles and orchestra; familiarity with performance problems. One semester, 2 credits.

\section*{356* Percussion Instruments}

Fundamentals of percussion, including keyboard, accessory, and timpani. Snare will be emphasized. One semester, 2 credits.

Music

\section*{Individual Instruction}

Private lessons are offered by an outstanding artist faculty in all orchestral instruments, guitar, harp, recorder, piano, organ, and voice. One half-hour lesson with a minimum of five hours practice weekly yields one credit per semester; two half-hour lessons with corresponding practice carry two credits. Lessons may be arranged without credit. Fees for lessons are listed in the fees and charges sections.

\section*{Student Recitals}

Each month students studying privately with an Artist-in-Residence perform at the College Musicales. Performance majors are also expected to participate in partial or complete recitals as part of their upper-division work. These recital opportunities exist for all students studying privately, whether or not they are music majors.

\section*{EnSEMBLES}

All of the ensembles listed below are open to all students, subject to audition or permission of the instructor. All are one credit per semester and may be repeated.

The COLLEGE CHOIR is a large choral ensemble open by audition to all students. It sings a variety of choral literature, and performs on campus throughout the academic year. Its two principal activities are the Christmas Madrigal Feaste in December and the annual concert tour in the Spring. Recent tours include the Southeastern States, Northern California, and Mexico.

The COLLEGE CHORALE is a select group of 12 to 16 voices chosen from the College Choir. Its repertoire includes madrigals, chamber choir literature, and popular and show music. It performs in community programs, before service clubs, and in most appearances of the Choir.

The WIND ENSEMBLE incorporates musicians who play woodwind, brass, or percussion instruments. It ranges in size from 30 to 40 members. Repertoire includes everything from marches and popular music to arrangements of classical pieces. Four concerts take place each year in the Ruth B. Shannon Center for the Performing Arts.

The WOODWIND AND BRASS ENSEMBLES involve selected members of the Wind Ensemble who wish to explore further the vast repertoire of woodwind and brass chamber music. Groups ranging in size from 3 to 8 members are formed for this purpose. Performances take place on regularly scheduled Music Department Musicales and during Wind Ensemble concerts.

The STRING ENSEMBLE is a string orchestra which rehearses twice weekly and presents concerts once each semester. Recent programs have included Baroque music, Mozart, and contemporary music.

The JAZZ ENSEMBLE holds weekly rehearsals (seminars) and is designed to give students an opportunity to study and perform techniques and styles of jazz. The ensemble will focus on the development of instrumental improvisation, blues interpretation, and the memorization of classic jazz standards. Contemporary musical concepts and terminology will also be examined. Emphasis will be placed on a jazz combo (small group) setting. May not be used to fulfill requirement for a music major or minor.

The CHAMBER MUSIC PROGRAM combines student and faculty performers to form professional quality ensembles. There are also regularly scheduled reading ensembles ranging in size from duos to octets. The program is open to all interested and qualified students and faculty. Participants are carefully combined in ensembles with members who match their own musical ability.

In addition, students may earn college credit for participation in either of two community ensembles:

RIO HONDO SYMPHONY: A regional, semi-professional community orchestra for the advanced student. Audition required.

CHORALE BEL CANTO: A community masterworks chorale of 80 voices which performs large choral works with orchestra in the Ruth B. Shannon Center for the Performing Arts. Open to faculty, staff and students by audition.

\section*{Philosophy}

David P. Hunt
Paul Kjellberg, Chair
Michelle Switzer

Ahilosophy is the study of thinking clearly about ideas. It does not normally lead to any one career in particular, but prepares you for anything. Philosophy deals with everyday problems: Should I go into teaching, law, or business? Should I be a Democrat, a Republican, something else, or nothing? These practical questions prompt major philosophical concerns: Who am I? What is important? What is real?

The study of philosophy brings many benefits. It stimulates self-examination ("The unexamined life," Socrates said, "is not worth living."); it provides insights into various cultures, including your own; it explores the inter-connectedness of different kinds of knowledge; it encourages clear thinking; and it offers a view of the big picture that is helpful in all aspects of life.

The department offers two programs in philosophy. The traditional major and minor introduce students to classical philosophical issues while fostering critical skills. The program in applied philosophy offers a solid grounding in philosophy together with a concentration in another discipline, allowing students to use their philosophical training to develop a deeper appreciation of the foundations, controversies, and larger significance of an area of interest outside philosophy.

\section*{Guidelines for a Major in Philosophy}

A minimum of 30 credits, of which 21 must be at the 300 level or above, including the three "core courses," Senior Thesis and Colloquium (PHIL 498), and either Seminar in Contemporary Philosophy (PHIL 420) or Seminar in the History of Philosophy (PHIL 430). The core courses, which are required for both major programs as well as the minor program, are the following:

Classical Philosophy, PHIL 310, 3 credits
Modern Philosophy, PHIL 315, 3 credits
Ethical Theories, PHIL 330, 3 credits

\section*{Guidelines for a Major in Applied Philosophy}

A minimum of 42 credits, including 18 from a field of concentration outside philosophy (the particular courses to be chosen in consultation with the faculty advisor), and 24 from within philosophy, of which 18 must be at the 300 level or above, including the three core courses, Senior Thesis and Colloquium (PHIL 498), and one 3-credit course, numbered 300 or above and approved by the advisor, on the philosophy of the field from which the 18 non-philosophy credits are taken. (This requirement may be met by a directed study if no regular course is appropriate.) Ideal fields of concentration for the Major in Applied Philosophy include such disciplines as Art History, Biology, Business, and Political Science.

\section*{Guidelines for a Minor in Philosophy}

A minimum of 18 credits, of which 12 must be at the 300 level or above, including the three core courses.
NOTE: Students may petition the Philosophy Department to accept one appropriate course from another discipline as an elective in the major or the minor.

\section*{Course Descriptions}

50* Meet and Talk
Informal philosophical discussion in the home of one of the faculty members. One semester, 1 credit.

\section*{105 Introduction to Ethics}

This course presents various traditional and critical approaches to moral and ethical issues and uses them to understand practical problems in daily life. Preference given to freshmen. One semester, 3 credits

\section*{120 Theories of Human Nature}

A philosophical approach to human nature and the human position in the scheme of things. Topics include free will, personal identity, human excellence, and the difference between human beings, animals, and machines. One semester, 3 credits.

\section*{220 Philosophical Issues in Imaginative Literature}

Develops an understanding of the philosophical enterprise through discussion of works of fiction that raise issues of a philosophical nature. One semester, 3 credits.

\section*{230* Philosophical Issues on Film}

Addresses philosophical questions posed by some of the masterpieces of world cinema; students view feature-length films, read relevant philosophical texts, and explore connections between the films and texts. January session, 4 credits.

\section*{240* Bioethics}

Moral and social problems in the medical and other biological fields, particularly issues raised by the dramatic growth of technology. One semester, 3 credits.

250* Philosophy of Love and Human Sexuality An examination of the constructions of male and female sexuality and some of their ethical and political implications; contemporary issues
including promiscuity, child abuse, prostitution, pornography, and marriage. One semester, 3 credits.

\section*{270* History of Social Thought}

An examination of some of the dominant historical approaches to the foundation of the state and its proper role, as a tool for understanding contemporary government; classic issues such as the nature of political authority, the social contract, and community. One semester, 3 credits.

\section*{300 Early Chinese Philosophy}

The early period of Chinese philosophy: Confucianism and Daoism, as well as other thinkers and schools of thought, all of which were influential in the development of cultures across East Asia. One semester, 3 credits.

\section*{302* The Development of Buddhist Philosophical Thought}

The development of Buddhist philosophical thinking as it began in India and flourished in China and Japan. Not open to freshmen; previous course in philosophy recommended. One semester, 3 credits.

\section*{310 Classical Philosophy}

Greek and Roman thought as the foundation for Western philosophy; systematic study of the development of philosophy from Thales to St. Augustine, with an emphasis on Plato and Aristotle. Not open to freshmen. One semester, 3 credits.

\section*{312* Medieval Philosophy}

Examines the period from the beginning of Christian philosophy through the High Middle Ages to the breakdown of the Medieval synthesis; focuses on Augustine and Aquinas. Not open to freshmen; previous course in philosophy recommended. One semester, 3 credits.

\section*{315* Modern Philosophy}

Major Continental and British philosophers of the 17 th and 18 th centuries, beginning with Descartes and ending with Kant. Not open to freshmen; previous course in philosophy recommended. One semester, 3 credits.

\section*{317* Nineteenth Century Philosophy}

This course explores the thought of Hegel, Marx Nietzsche, and Kierkegaard, all very difficult thinkers who were influential in forming the modern "continental" tradition in philosophy. One previous course in philosophy and instructor's permission. One semester, 3 credits.

\section*{320* Existentialism}

The meaning of human existence as presented in the writings of 19th and 20th century philosophers such as Kierkegaard, Nietzsche, Dostoyevsky, Camus, Sartre, and Buber. Not open to freshmen; previous course in philosophy recommended. One semester, 3 credits.

\section*{326* Symbolic Logic}

An introduction to formal structures of reasoning through analysis of the logical forms of language and thought; readings and problems in logic and logical theory. Not recommended for freshmen. One semester, 3 credits.

\section*{330* Ethical Theories}

Problems such as the nature of moral judgments, origin of obligations and responsibility, relation between facts and values, possibility of moral knowledge, and role of rules and consequences in moral reasoning; readings from classical and contemporary sources. Open to juniors, or sophomores with one previous course in philosophy. One semester, 3 credits.

340* Contemporary Issues in Social Philosophy Concepts in social philosophy such as justice, welfare, the individual, community, and society; contemporary problems such as the just allocation of resources, the individual in relation to society, and the relationship between law and morality. Prerequisite: Phil. 270 History of Social Thought, or both Phil. 105 Introduction to Ethics and one other course in Philosophy One semester, 2 or 3 credits.

\section*{345* Philosophy of Art}

Philosophical reflection on the nature of the arts: the plastic arts (painting, sculpture, etc.) literature, music, and performance; topics include the definition of art, critical appraisal, artistic creativity, aesthetic experience, and the role of audience and institutions. Open to juniors, or to sophomores with one previous course in philosophy. One semester, 3 credits.

\section*{350* God and Religion}

The idea of God; proofs for the existence of God; the nature of religious language; the problem of evil; arguments for and against the supernatural. Open to juniors, or sophomores with one previous course in philosophy. One semester, 3 credits.

\section*{360 Philosophy of Mind}

Critical examination of the major theories about the nature of mind; an exploration of selected topics, including the mind-body relationship, personal identity, artificial intelligence, intentionality, and free will. Open to juniors and seniors with one previous course in philosophy and sophomores with two previous course in philosophy. One semester, 2 or 3 credits.

\section*{370* Metaphysics}

Theories about what sorts of things are fundamental in the universe; readings from classical and contemporary sources. Open to juniors and seniors with one previous course in philosophy, or sophomores with two previous courses in philosophy. One semester, 3 credits.

\section*{380* Truth and Knowledge}

Various problems of knowledge, such as belief and opinion, the origin of ideas, the certainty of knowledge and truth, and the limits of knowledge. Open to juniors and seniors with one previous course in philosophy, or sophomores with two previous courses in philosophy. One semester, 3 credits.

\section*{385 Feminist Philosophy}

An examination of the primary feminist responses to the omission of gender as fundamental category of analysis in social and political theory-liberal, socialist, Marxist, psychoanalytic, and radical. Prerequisite: Phil. 105 Introduction to Ethics or 9 credits in Women's Studies.

Philosophy

400* Advanced Philosophical Writing
This is an advanced course in writing for students with experience in philosophy. Prerequisite: two previous courses in philosophy and instructor's permission. One semester, 3 credits.

\section*{420* Seminar in Contemporary Philosophy} A close examination of a selected topic and the work philosophers have done on this topic during the last 50 years. Open to juniors and seniors with two previous courses in philosophy. May be repeated for credit. One semester, 2 or 3 credits.

\section*{425 Seminar in Philosophy}

A focused study of some aspect of philosophy; contact instructor for details. Open to juniors and seniors with two previous courses in philosophy. May be repeated for credit. One semester, 2 or 3 credits.

430* Seminar in the History of Philosophy
A detailed examination of one or two philosophical figures, or of a single philosophical school of thought. Open to juniors and seniors with two previous courses in philosophy. May be repeated for credit. One semester, 2 or 3 credits.

290, 390, 490 Selected Topics in Philosophy Variable credits. May be repeated for credit.

\section*{395, 495 Directed Studies in Philosophy} Credit and time arranged. Permission. May be repeated for credit.

\section*{498 Senior Thesis and Colloquium}

This advanced seminar supports and directs senior majors in the research and writing of their Senior Thesis. The Senior Thesis, usually a year-long project, is the required paper-in-themajor. Prerequisites: Senior standing and permission. Two semesters, 1 or 2 credits each, for a total of 3 credits.

\section*{Physical Education and Recreation}

Sherry Calvert
Hilmi M. Ibrahim
David A. Jacobs
Patricia Van Oosbree, Chair

\(\tau\)he study of Physical Education as human movement and Recreation as leisure time activity has changed significantly in recent years. While Physical Education continues to encompass the preparation of teachers and coaches for sport skills, the scientific disciplines of Kinesiology, Biomechanics, Motor Learning/Motor Control and Exercise Physiology have gained prominence as necessary aspects for a complete curricula. Society, with more free time and stress is demanding more from recreation.

Students can major or minor in physical education and recreation while emphasizing teaching/coaching, pre-athletic training, pre-physical therapy or recreation/sport management.

The department offers activity courses in individual, dual, and team sports.

\section*{Guidelines for a Major in Physical Education and}

\section*{Recreation}

A minimum of 30 credits, of which 20 must be at the 300 level or above, including the following core:

First Aid, PER 125, 1 credit
Movement Anatomy, PER 150, 3 credits
Biomechanics, PER 311, 4 credits
Exercise Physiology, PER 313, 4 credits
History and Philosophy, PER 340, 3 credits
Motor Learning and Control, PER 440, 4 credits
Choice of one:
Sociology of Sport and Leisure, PER 382, 3 credits
Psychology of Sport and Leisure, PER 435, 3 credits

\section*{Guidelines for a Minor in Physical Education}

A minimum of 20 credits, including: 125, 150, 311, 313 and 440, with 4 credits of advisor-approved electives.

\section*{Guidelines for a Minor in Recreation}

A minimum of 18 credits, including: 215, 315, 360, 373, 382, and 388.
Two courses chosen from the following: 211, 212, 213, 221, 222, 225, or 320.

\section*{Areas of Emphasis}

Teaching/Coaching: Designed for those interested in teaching physical education and/or coaching athletic teams. Requirements include the completion of the departmental core and 15, 212, 213, 215, 225, 315, 316, 320, 325, 350, 373, 420. For teaching credential requirements: See Education.

Pre-Athletic Training: Designed for those interested in a career in athletic training. Requirements include the completion of the departmental core and 92, 201, 316, 325, \(350,400,410,450\) and BIOL 300A,B. This program is designed to prepare students for entrance to a graduate program in athletic training where the requirements for National Athletic Trainers Association's certification may be completed. Requirements may vary institution to institution making contact with your advisor and the athletic training staff for guidance on this issue imperative.

Recreation and Sport Management: Designed for those interested in serving in public or private agencies that deal with recreation and sport. Requirements include the completion of the departmental core as well as 12 credits selected from 92, 221, 222, \(315,360,373,382\); and 388. BSAD 232 and 330 are highly recommended.

Pre-Physical Therapy: Designed for students interested in physical therapy. Requirements include completion of the departmental core and BIOL 100 and 300A/B; PHYS 130 and 131; PSYC 100; CHEM 110A/B; PSYC 314, MATH 80, or PER 420 and any 3 credit psychology elective. Students should also take BIOL 300A,B, paired courses PSYC 372 and SOWK 344; MATH 85, MATH 139A, or MATH 141A; and PER 92. Electives should be carefully selected with advisor's approval and current requirements for entry to the physical therapy programs of choice.

Students interested in pursuing graduate degrees in the specialized subjects of Biomechanics, Exercise Science, Leisure Studies, Motor Learning and Sport Psychology should consult with their academic advisor.

\section*{Course Descriptions}

\section*{Theory Courses}

125 First Aid
Principles of first aid and emergency accident management. One semester, 1 credit. May be repeated for credit.

\section*{130* Lifeguard Training}

Provides the skills and knowledge necessary to maintain a safe aquatic environment. One semester, 1 credit.

\section*{150 Movement Anatomy}

Basic anatomical principles concerned specifically with human performance analysis. One semester, 3 credits.

\section*{201* Fundamentals of Nutrition}

An introduction to human nutrition: structure, function, sources of nutrients, and the recommended daily allowances. One semester, 3 credits.

\section*{211* Analysis of Football and Baseball}

Fundamentals and teaching methodology for football and baseball. One semester, 2 credits.

\section*{212* Analysis of Aquatics and Track and Field} Fundamentals and teaching methodology for swimming, water polo, and track and field. One semester, 2 credits.

\section*{213* Analysis of Volleyball and Basketball} Fundamentals and teaching methodology for volleyball and basketball. One semester, 2 credits.

215 Analysis of Dance and Creative Movement Fundamentals of folk, square, social and modern dance and creative movement; teaching techniques applicable to dance instruction. One semester, 2 credits.

221,* 222 Leisure and Arts in Contemporary Society
(Same as INTD 221, 222). Two semesters, 3 credits each.

225* Analysis of Racquet Sports
Fundamentals and teaching methodology for tennis, badminton, racquetball, and pickle ball. One semester, 3 credits.

\section*{230 The Olympic Games and Society}

Study of the Olympic movement world wide, the effect of using the games for political influence, the role of special populations as extensions of changes in society and the current issues dominating hosts and athletes. January, 3 credits.

300A, B Human Physiology and Anatomy: Structure and Function of the Human Body (Same as Biology 300A,B) Two semesters, 4 credits each.

\section*{311 Biomechanics}

Anatomical and mechanical principles relating to human motion. Lecture and laboratory.
Prerequisite: PER 150. One semester, 4 credits.

\section*{313 Exercise Physiology}

The effects of exercise and stress upon the various organic functions. Lectures and laboratory. Prerequisite: PER 150. One semester, 4 credits.

\section*{315* Outdoor Recreation}

Basic techniques and resources available for camping, hiking, backpacking, mountaineering, and water-related recreation activities. One semester, 3 credits.

\section*{316 Care and Prevention of Athletic Injuries} Treatment procedures for athletic injuries, preventive and therapeutic conditioning, and safety in sport. Prerequisite: 150. One semester, 3 credits.

\section*{320 Movement and Elementary School} Physical Education
The biological, psychological, and sociological interpretations of play and physical education. Fundamentals of teaching movement at the preschool and elementary level. Includes laboratory experience. One semester, 3 credits.

\section*{325 Health Science for Teachers}

Acquaints the prospective teacher with the multiphasic school health program, nutrition and current health issues. Emphasis on the influence of these areas to individuals and the school setting are studied. Required for all Professional Clear Credentials. One semester, 3 credits.

\section*{340 History and Philosophy of Sport and} Leisure
The historical and philosophical development of sport and leisure within the context of the discipline and human cultural development. One semester, 3 credits.

\section*{350* Adaptive Physical Education}

Exercise and adaptations necessary for the needs of the physically and mentally challenged. Prerequisite: 150. One semester, 2 credits.

\section*{360* Therapeutic Recreation}

Principles and organization of recreational activities in varied therapeutic settings; field work included. One semester, 3 credits.

\section*{373* Sport and Recreational Management}

Administrative aspects of athletics, physical education, and recreation are studied and put into practice. One semester, 3 credits.

\section*{382* Sociology of Sport and Leisure}

Impact of culture on the rise of games and sports in human societies. One semester, 3 credits.

\section*{388* Sport, Play and Ritual}
(Same as INTD 241) January session, 4 credits.

\section*{400* Therapeutic Modalities}

Understanding of the body's reaction to stress and the use of electromagnetic, infrared, and acoustic energy to elicit responses. One semester, 3 credits.

\section*{410* Therapeutic Exercise}

Covers general treatment management along with rehabilitation goals in a therapeutic setting. One semester, 3 credits.

\section*{420* Statistical and Evaluative Methods}

Parametric and nonparametric statistics used as a means of analyzing sport skills and the sport sciences. Correlation, probability, analysis of variance and measures of central tendency and variability, represent statistical analysis covered. One semester, 3 credits.

Physical Education and Recreation

\section*{435* Psychology of Sport and Leisure}

Psychological factors related to human performance and leisure activity. Individual and team functions of arousal, skill level, cohesion, social facilitation, and attention are among the areas studied. One semester, 3 credits.

440 Motor Learning and Control
Theoretical study of the change in motor skill behavior as a result of practice and experience, as well as the reflexive and voluntary mechanisms that control human movement Lecture and laboratory. One semester, 4 credits.

450* Advanced Care and Prevention of Athletic Injuries
In depth study of treatment procedures for athletic injuries and advanced preventive and therapeutic conditioning. Prerequisite: 316. One semester, 3 credits.

\section*{489* Seminar In Physical Education \& Recreation}

Training and practice in the preparation and presentation of oral and written reports on the topics pertaining to the subfields in Physical Education and Recreation. Open to seniors majoring in PER. One semester, 2 credits.

\section*{General Courses}

\section*{1 Fitness and Wellness}

Discussion and laboratory experience covering fitness components (flexibility, endurance, strength, body composition) and wellness components (proper nutrition, risk factor reduction, stress management). Primary objective is to provide students with the skills and behaviors to maintain a high level of fitness and health throughout life. One semester. 1 credit.

\section*{15 Combatives}

An introduction to the principles and techniques of the five basic forms of Tae Kwon Do Karate. One semester. 1 credit.

\section*{92 Field Work in Physical Education and Recreation}

Experience in college and private settings. Permission. May be repeated for credit. One semester, 1 credit.

\section*{390, 490 Current Topics in PER}

Variable credits. Permission. May be repeated for credit.

\section*{395, 495 Directed Studies}

Credit and time arranged. Permission. May be repeated for credit.

\section*{Kinesthetic Performance}

Activity classes carry one credit per semester, fulfill the kinesthetic performance requirement, and may be repeated for credit. Typical offerings: aerobics, badminton, combatives, racquetball, swimming, softball, tennis, volleyball and weight training.
*Activity Classes
2 Aerobics
3 Advanced Aerobics
7 Self Defense for Women (R. A. D.)
8 Step Aerobics
9 Advanced Step Aerobics
10 Weight Training
15 Combatives
21 Badminton
22 Bowling
23 Golf
24 Racquetball
25 Swimming
26 Tennis
27 Dynamics of Running
32 Basketball
34 Soccer
35 Softball
36 Volleyball
*Not all the activity classes listed are offered each year.

\section*{Intercollegiate Athletics}

Participation in intercollegiate athletics carries one credit per semester and may be repeated for credit. These sports are: Women's Intercollegiate Basketball, Cross Country, Lacrosse, Soccer, Softball, Swimming, Tennis, Track and Field, and Volleyball, water Polo; Men's Intercollegiate Baseball, Basketball, Cross Country, Football, Golf, Lacrosse, Soccer, Swimming, Tennis, Track and Field, Water Polo.

\section*{Physics and Astronomy}

Howard Lukefahr, Chair
Seamus Lagan
Glenn Piner

คhysicists seek to understand nature at its most profound level. From the behavior of quarks that are the constituents of protons and neutrons, to superclusters of galaxies, physicists seek to learn the inner workings of nature. As physicists explore new parts of nature, practical applications emerge. In fact, many of the spectacular technologies new to the twentieth century are byproducts of physicists' investigation of nature.

At Whittier, Physics and Astronomy is a small department, attracting some of the college's best students to a friendly atmosphere, small classes, opportunities to participate in research, and close interactions between students and faculty. Courses are often taught in a non-traditional Workshop format that emphasizes learning by investigation and extensive use of the department's excellent computing facilities. Physics majors enjoy 24 hour per day access to the Physics Lounge and Physics Library where students work together on homework, play chess, and simply relax.

The Whittier College Chapter of the Society of Physics Students (SPS) is at the core of the intellectual and social life of the department. SPS sponsors several lectures per semester by physicists from other colleges, universities, national labs, and industrial labs who discuss their research. SPS also sponsors astronomy parties in the desert, trips to research facilities off-campus, a pizza and movie night, an annual picnic, and other activities.

The Whittier College Department of Physics and Astronomy offers all of its majors the opportunity to participate in research. Faculty and students engage in research together and have authored papers together. In addition, our students' research experiences have helped them gain admission to top graduate programs and secure positions of responsibility in industry. Moreover, participation in research is just plain fun.

The Physics program at Whittier is rigorous and is designed to prepare students for entry into Ph.D. programs in Physics. But the major is also flexible and offers students options which help prepare them for careers in teaching and employment in industry after graduation. Many of our Physics Majors also complete a major or minor in Mathematics.

The Department's web page, accessible through the Whittier College web page and at www.physics.whittier.edu, provides up-to-date information and announcements important to students interested in physics.

\section*{Guidelines for a Major in Physics}

To receive a B.A. in Physics from Whittier College, students must complete 35 credits of required physics courses, 15 credits of required math courses, and either option I or option II below.

Physics

\section*{Required Physics Courses:}

Intro Optics and Modern Physics, PHYS 130, 4 credits
Intro Thermodynamics and Waves, PHYS 140, 4 credits
Intro Kinematics and Mechanics, PHYS 150, 4 credits
Intro Electricity and Magnetism, PHYS 190, 4 credits
Classical Mechanics, PHYS 310, 3 credits
Advanced Modern Physics, PHYS 325, 3 credits
Electromagnetic Theory, PHYS 330, 3 credits
Quantum Mechanics, PHYS 350, 3 credits
Experimental Physics, PHYS 380A,B, 4 credits
Senior Seminar, PHYS 499, 3 credits

\section*{Required Math Courses:}

Calculus I and II, MATH 141 A,B, 8 credits
Calculus III, MATH 241, 4 credits
Differential Equations I, MATH 345A, 3 credits
Option I
Completion of 9 credits from the following list (at least three must be in Physics)
Electronics and Computer Interfacing, PHYS 205, 3 credits
Environmental Physics, PHYS 210, 3 credits
Oscillations and Waves, PHYS 300, 3 credits
Optics, PHYS 320, 3 credits
Statistical Physics, PHYS 315, 3 credits
Astrophysics, PHYS 360, 3 credits
Solid State Physics, PHYS 375, 3 credits
Selected Topics, PHYS 390,490, 3 credits
Undergraduate Research, PHYS 396/496, 1-3 credits
Complex Variables, MATH 344, 3 credits
Differential Equations II, MATH 345B, 3 credits
Numerical Analysis, MATH 350, 3 credits
Linear Algebra, MATH 380, 3 credits
Programming I, COSC 120, 3 credits

\section*{Option II}

Completion of 6 credits from the list above (at least 3 in physics) plus a two-semester introductory sequence in another science approved by the department (e.g., CHEM 110).

\section*{Maximum Credits in Physics Courses}

Physics majors should be aware that a maximum of 48 credits of physics courses can be counted toward the 120 units required for graduation. Physics majors are welcome to take more than 48 credits of physics courses, but doing so will necessitate completion of more than 120 credits in order to receive a B.A. from Whittier College.

\section*{Preparation for Graduate Programs}

Students planning to enter Ph.D. programs in Physics should plan to take more than the minimum number of Physics and Math courses.

\section*{Guidelines for a Minor in Physics}

To receive a minor in Physics from Whittier College, students must complete at least 22 credits in physics and 12 credits in math.

Intro Optics and Modern Physics, PHYS 130, 4 credits
Intro Thermodynamics and Waves, PHYS 140, 4 credits
Intro Kinematics and Mechanics, PHYS 150, 4 credits
Intro Electricity and Magnetism, PHYS 190, 4 credits
Two upper division physics courses approved by the Physics Department, 6 credits

\section*{Math Courses Required for a Minor in Physics \\ MATH 141 A,B, Calculus I and II, 8 credits \\ MATH 241 Calculus III, 4 credits}

\section*{Guidelines for Choosing a Beginning-Level Physics or \\ Astronomy Course}

PHYS 90 is intended for students who are not majoring in science and is suitable for students who have a limited mathematics background. Interested science majors are also welcome. Does not count toward a physics major. Satisfies the ILS requirement. PHYS 130 and PHYS 131 together constitute a year in physics suitable for pre-health professional students who will be taking the MCAT and related exams. Note that these courses can be taken in any order. PHYS 130 satisfies the ILS requirement.
PHYS 130 and PHYS 140 are algebra-based courses suitable for students with a solid highschool algebra background or better. These courses can be taken in any order and do not assume any previous physics courses. Both courses satisfy the ILS requirement. PHYS 130 is particularly suitable for well-prepared students who are not majoring in science. PHYS 150 and PHYS 190 are calculus-based courses. MATH 141A (Calculus I) is a corequisite for PHYS 150 and MATH 141B (Calculus II) is a co-requisite for PHYS 190. These courses can be taken in any order. Both courses satisfy the ILS requirement.

Students majoring in physics or planning to complete the 3-2 engineering program may occasionally wish to take more than one introductory physics course in a semester. Students with credits in AP physics, A-level physics, or other college-level physics courses should seek advice from the physics faculty, preferably before registering for physics courses at Whittier College.

\section*{Course Descriptions}

All Physics laboratory courses require a lab fee.
Lab courses include Phys 90L, 130, 131, 140, 150,
190, 205, 320, and 380A,B. Contact the
Department of Physics and Astronomy for details.

\section*{90 Introduction to Astronomy}

The earth, solar system, galaxy, and universe; space exploration, exobiology, and cosmology. Optical and radio telescopes, spectroscopy, and space probes. Lecture and laboratory. One semester, 4 credits. Satisfies the ILS requirement.

130 Introduction to Optics and Modern Physics
This is a one-semester algebra-based course which can serve as an entry to the major or can be taken to satisfy the one-semester lab science requirement. Topics covered include geometrical optics, physical optics, quantum physics, atomic and nuclear physics. This course is taught in an activity-based workshop format. One semester, 4 credits. Satisfies the ILS requirement.

\section*{131 Introductory Mechanics and Electromagnetism}

This is a one-semester algebra-based physics course which is aimed at students in the prehealth programs. Topics covered include kinematics, Newton's Laws, momentum, energy, electrostatics, circuits, magnetostatics, electromagnetic induction. This course is taught in an activity-based workshop format. One semester, 5 credits.

\section*{140 Introductory Thermodynamics and Waves}

This is a one-semester algebra-based course which can serve as an entry to the major or can be taken to satisfy the one-semester lab science requirement. Topics covered include ideal gas laws, heat capacities, kinetic theory, heat engines, entropy, oscillatory motion, wave motion, interference. This course is taught in an activity-based workshop format. One semester, 4 credits. Satisfies the ILS requirement.

150 Introductory Kinematics and Mechanics This is a one-semester, calculus-based introductory physics course that can serve as an entry to the major or can be taken to satisfy the one-semester lab science requirement. Topics covered include vectors, projectile motion, Newton's laws, gravitation, momentum, and energy. This course is taught in an activity-based workshop format. Co-requisite: Math 141A. One semester, 4 credits. Satisfies the ILS requirement.

\section*{190 Introductory Electricity and Magnetism} This is a one-semester, calculus-based introductory physics course that can serve as an entry to the major. Topics covered include electrostatics, circuits, magnetostatics, electromagnetic induction. This course is taught in an activity-based workshop format. Corequisite: Math 141B. One semester, 4 credits. Satisfies the ILS requirement.

\section*{196, 296 Research}

Independent research under the direction of a faculty member. One semester or January
Interim, 1-4 credits. Can be repeated for credit.

\section*{205 Electronics and Computer Interfacing}

An introduction to electronics and computer interfacing of small-scale laboratory experiments. Open to all science majors. Topics include: An overview of basic electrical circuit theory; the
design and use of digital circuits using logic gates, flip-flops, etc; the design and implementation of computer interfacing schemes for small scale experiments in physics, biology, and chemistry using commercial interfacing hardware and software. Combined lecture and lab meets for three hours twice per week. Students will complete a final project involving interfacing of an experiment relevant to their majors/interests. Permission of instructor. One semester, 3 credits.

\section*{210 Environmental Physics*}

The application of physics to the study of our environment. Topics will vary and may include global climate change, atmospheric physics, radioactivity, radioactive dating techniques, radioactive waste disposal, transport of pollutants, and comparison of Earth to other planets. Prerequisite: Phys 130 and one additional 100level physics course, or permission of the instructor. One semester, 3 credits.

\section*{300 Oscillations and Waves*}

Analysis of damped and driven oscillators and resonance phenomena in various physical contexts; coupled oscillators and modes. Solutions of the wave equation, superposition, traveling waves, standing waves. Introduction to non-linearity. Prerequisites: 130, 140, 150, and MATH 241. One semester, 3 credits.

\section*{315 Statistical Physics*}

Physics of large-scale systems consisting of many particles. Statistical mechanics, kinetic theory, thermodynamics, and heat. Introduction to quantum statistics. Prerequisites: 130, 140, 150. Co-requisite: MATH 241. One semester, 3 credits.

\section*{360 Astrophysics*}

The emphasis of this course will be on the physics of stars, with topics including stellar structure, stellar spectra, nuclear energy generation, and stellar evolution. Other topics may include the interstellar medium, galaxy structure and dynamics, and cosmology. Prerequisite: Math 241. One semester, 3 credits.

\section*{310 Mechanics*}

Systematic exposition of Newtonian Mechanics; conservation laws, collisions, systems of particles, rigid body motion, central forces and orbital mechanics, non-inertial reference frames, generalized coordinates, and introduction to

Lagrange's equations of motion. Prerequisites: 140, 150, and MATH 241. One semester, 3 credits.

\section*{320 Optics*}

The nature of light. Geometrical, physical, and quantum optics. Light rays, lenses, and optical instruments. Light waves, superposition, interference, and diffraction. Blackbody radiation, photons, spectra, and lasers. Prerequisites: 130, 190, and MATH 241. One semester, 3 credits.

\section*{325 Advanced Modern Physics*}

Concepts of modern physics applied to important physical systems including solids, molecules, nuclei, and elementary particles. Special relativity. Prerequisites: 130, 140, 150, 190, and MATH 241. One semester, 3 credits.

\section*{330 Electromagnetic Theory*}

Electro- and magneto- statics in vacuum and in matter, scalar and vector potentials, and electrodynamics. Maxwell's equations and electromagnetic waves. Prerequisites: 130, 140, 150, 190, and MATH 241 . One semester, 3 credits.

\section*{350 Quantum Mechanics*}

General formalism; operators, eigenfunctions and eigenvalues. The Schrodinger equation. One dimensional quantum systems. Angular momentum. Prerequisites: 130, 140, 150, 190, and MATH 241. One semester, 3 credits.

\section*{375 Solid State Physics*}

Crystals and electrons in crystals. Crystal structures and binding. The reciprocal lattice and phonons. Free electron gas, energy bands, and Fermi surfaces. Metals, semiconductors, and insulators. Electronic and magnetic properties of solids. Prerequisites: 130, 140, 150, 190, and MATH 241. One semester, 3 credits.

\section*{380 A,B Experimental Physics*}

Laboratory experiments taken from a wide variety of topics in physics including experiments of historical importance, atomic and nuclear physics, x-ray physics, condensed matter physics, and cryogenics. Formal lab reports will be required in the second semester. Prerequisites: 130, 140, 150, 190, and MATH 241. Two semesters, 2 credits each semester. Physics 380B may be repeated for credit.

\section*{390, 490 Selected Topics in Physics*}

Variable credits. May be repeated for credit.

\section*{96, 496 Research}

Independent research under the direction of a faculty member. One semester or January Interim, 1-4 credits. Can be repeated for credit.

\section*{499 Senior Seminar}

Special topics presented by physics faculty. Readings will be assigned from major journals, and students will be expected to engage in independent library research. Students will complete a significant independent study project, leading to a major term paper that satisfies Whittier College's Paper in the Major requirement, and a presentation open to the entire college community. Prerequisite: Permission of the instructor. One semester, 3 credits.

\section*{Political Science}

\author{
Frederic A. Bergerson \\ Joyce Kaufman \\ Michael J. McBride, Chair \\ John H. Neu \\ Deborah Norden
}

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lato once suggested that wise men who refuse to participate in the affairs of government are punished by having to live under the rule of fools. The
Political Science Department hopes to develop wisdom in its own majors and all students so that they may be effective participants in the political world, whether as practitioners of politics or as citizens in their community.

To this end, the Department acquaints students with the nature of political behavior and the substance of politics through the systematic analysis of political phenomena. The Department offers special programs such as Model United Nations, the Washington Winterim, the International Negotiations Project, internships, field research experience, and participation in Pi Sigma Alpha, the National Political Science Honorary. The Department also provides background and career guidance for such areas as law, public and international administration, planning and policy-making, politics, teaching, journalism, pure and applied research, and related fields.

\section*{Guidelines for a Major in Political Science}

A minimum of 36 credits, including:
American Government and Politics, PLSC 200, 3 credits
International Relations, PLSC 220, 3 credits
Comparative Politics, PLSC 240, 3 credits
Political Methodology, PLSC, 3 credits
Normative Political Theory, PLSC 380, 3 credits
One course in Public Administration/Public Law
One January Session course or approved equivalent
One Capstone seminar
Two additional courses (300 or 400), one from the subfields of American/Public Administration/Public Law and one from International Relations/Comparative Politics.

Students wishing to pursue an International Relations track should complete the basic requirements for the Political Science major and the following courses in International Relations and Comparative Politics:

PLSC 331; 332; 333, 9 credits
PLSC 330, 420, or 430, 3 credits
2 courses in Comparative Politics from at least two regions, 6 credits
In addition, students pursuing this track should take at least 2 years of a foreign language and other appropriate courses as recommended by the Department.

Students are also encouraged to participate in an overseas or off-campus program which is either language-based or has a political science or international relations component.

\section*{Guidelines for a Minor in Political Science}

A minimum of 18 credits, including PLSC 100 or 200 , selected in consultation with the department minor advisor to fulfill one of the following emphases:

General Emphasis: At least one course in four of the following subfields: American Politics; Public Administration and Law; International Relations; Comparative Politics; and Political Theory.

Subfield Emphasis: 12 credits taken in one or two related subfields.

\section*{Course Descriptions}

\section*{Introductory Courses}

100 Introduction to Political Science
Political Science as the study of political behavior from various perspectives-individual, group, national, and international; exploring the role of science, values, and theories in the study of politics and providing examples of American, comparative, and international politics. Students participate in a simulation exercise to experience major aspects of political behavior. Each department member participates in some aspect of this course. One semester, 3 credits.

\section*{American Politics}

200 American Government and Politics
The governmental institutions and political processes of the American political system; attitudes and behavior of citizens; the policymaking process and the key issues of American politics. Satisfies the state teaching credential requirement in American Constitution. One semester, 3 credits.

\section*{205* Women in Politics and Society}

Examines the changing role of women in American politics and society, including the suffrage movement, the ERA, work and career patterns. One semester, 3credits.

\section*{302 The President and Congress}

Development of the presidency and Congress, their functions, relationships, and problems; comparative consideration of other political, executive and legislative bodies. One semester, 3 credits.

\section*{304 Politics, Parties and Pressure Groups}

The nature, purpose and functions of American political parties; their role in the governmental process; nominations, elections, and voting behavior; party leadership and responsibility; impact of pressure groups in politics. One semester, 3 credits.

\section*{305 Washington Winterim}

Field work, on-the-scene learning experience in Washington, D.C. Lectures, discussions, briefings, site visits, and individual research projects on aspects of national politics, government, and public policy. Permission. January, 4 credits.

\section*{306* The Media and the Political Process}

The power and role of television, newspapers, and other mass media in the American political process; bias vs. objectivity in news and public affairs programming: media coverage, use, and influence in election campaigns; media techniques and impact on government institutions; interest groups and public policy in the media age. One semester, 3 credits.

\section*{308 California Politics and Government}

The political process in Californianominations and elections; structure and operation of state and local institutions; leading policy problems. One semester, 3 credits.

\section*{312* Urban Politics}

Political behavior and processes in urban areas; stress on contemporary issues, perspectives, models and interrelationships of politics, policy, and planning. One semester, 3 credits.

\section*{315 Politics Beyond the Classroom}

Direct observation and analysis of practical politics through field trips, personal investigation, and small group discussion; TV, the press, public relations, parties, and lobbying as they relate to campaigns, elections, the political process, and public policy. Involves interviews with political leaders and visits to government institutions. Course culminates with field trip to the state capitol in Sacramento. Additional charge involved, personal transportation may be necessary. Permission. January, 4 credits.

\section*{400 Seminar in American Politics}

Seminar dealing with such subjects as American political parties, nominations, campaign, elections, voting behavior, interest groups, and the political novel. Permission. One semester, 3 credits.

\section*{International Relations \\ 28 Model UN Conference}

Participation in annual conference of Model United Nations of the Far West. Permission. May be repeated for credit. One semester, 1 or 2 credits.

\section*{220 International Relations}

Development of international politics since World War I; basic concepts and theories regarding political interaction among nation-states, emphasizing national interest and security, the exercise of power and its limits, and international conflict and cooperation. One semester, 3 credits.

\section*{225* Problems and Policies in Contemporary Politics}

Focuses on a major problem in contemporary politics; opportunity for indepth analysis of the problem's background, current status, and prospects for resolution. January, 4 credits.

\section*{330 Human Rights}

The nature of human rights and their role in the global community; how human rights are established, defined, monitored, and enforced with special emphasis on the role of the United Nations in this process; major issues and problems in the area of human rights. One semester, 3 credits.

\section*{331 International Organization}

An examination of the nature of international organization and globalist theory; special emphasis on the United Nations: its role in peace and security, economic and social affairs, sustainable development, humanitarian affairs, and human rights; the role of member states and non-governmental organizations; participation in the Model United Nations of the Far West conference. One semester, 3 credits.

\section*{332 American Foreign Policy}

Historical evolution of American foreign policy from independence to the present; the decisionmaking process; problems and prospects in contemporary foreign policy. One semester, 3 credits.

\section*{333 International Political Economy}

Surveys an influential area of international relations which analyzes the interplay of politics and economics in the international milieu. While the course focuses on contemporary debates over the importance of economic variables in political systems, these issues are analyzed within the context of formative debates such as realism vs. idealism; neomercantilism vs. laissez faire; and dependency vs. neoinsitutionalism in a variety of regional settings. One semester, 3 credits.

\section*{339* Military Strategy and Arms Control}

Focuses on weapons of mass destruction, concepts of deterrence, and problems of strategic arms control efforts. One semester, 3 credits.

\section*{420 Seminar in International Relations}

Survey of international relations theories and methodological problems in research; completion of independent research project. Permission. One semester, 3 credits.

\section*{Comparative Politics}

\section*{240 Comparative Politics}

Introduction to the comparative method and theoretical framework in comparative politics, focusing on Western Europe and the Third World. Examines common features of all political systems, such as social cleavages and regime types. Explores contrasting theories of political change, and looks at current issues. One semester, 3 credits.

\section*{245 From Russia With Feeling}

Russia-the interaction of history, culture, literature, and politics; life under the Tsars, the Bolshevik revolution, the Stalinist purges, Russia at war, voices of dissent and Soviet propaganda through lectures, serious games, films, and Soviet literature. January, 4 credits.

\section*{341* Western European Political Systems} Comparison of political processes in the major nations of Western Europe; the interaction of historical, cultural, economic, and political patterns. One semester, 3 credits.

\section*{346* Russian and East European Politics} Eastern Europe in transition: an analysis of the political, cultural, economic, and historical factors that have led to recent changes in the
former Soviet Union and Eastern Europe and consideration of future alternatives for the area. One semester, 3 credits.

\section*{348* East Asian Political Systems}

Comparative analysis of political development and change in China and Japan; problems of ideology, national integration, economic development and post-industrial growth, political participation, and political stability. One semester, 3 credits.

\section*{349* Southeast Asian Politics}

Analysis of the politics of Southeast Asia with a focus on the post-World War II period; emphasis on Vietnam and Cambodia, and the impact of the Vietnam War on the region and on those countries' relations with other nations.
One semester, 3 credits.

\section*{352 Latin American Politics}

Comparison of political systems of Latin American nations; emphasizes dynamics of political change and problems of democracy. One semester, 3 credits.

\section*{354 Latin American Revolutions}

Comparison of Mexican, Cuban, and Nicaraguan Revolutions, emphasizing causes, revolutionary strategies, and changes in values, ideas, and institutions. One semester, 3 credits.

356* Middle Eastern Political Systems
Comparative approach to the heritage and institutions of Islam and Israel; stresses problems of political development and ArabIsraeli relations. One semester, 3 credits.

\section*{358* African Political Systems}

Comparative study of political change in Africa south of the Sahara; traditional political systems, colonialism, nationalism, and problems of nationbuilding and development. One semester, 3 credits.

\section*{359* North American States and Identities: Historical Transformations}

Interprets historical transformations which began in Africa, the Middle East, and Europe and continue in North American society, including the rise of the modern state, the multifarious formations of identities and the continuously changing mechanics of maintaining identities as new ideas challenge
the family, everyday life practices, networks of loyalty, and motivational patterns. One semester, 3 credits.

\section*{440* Seminar in Comparative Politics}

Substantive and methodological problems in comparative politics research; completion of independent research project. Permission. One semester, 3 credits.

\section*{Public Administration and Law 360* Public Administration and Policy}

Policy-making, management, personnel, and budgeting in the context of political administrative responsibility, tensions between the classic democratic model and bureaucratic planning; methods used to study public policy; policy formulation, implementation and impacts; contemporary issues and compliance problems. One semester, 3 credits.

\section*{362* Federalism and Urban Life}

Team research considers the impact of federal, state, and local programs on local political and social life; may include housing, poverty, the environment, and mass transportation issues. Permission. May be repeated for credit. Counts as seminar. One semester, 3 credits.

365 Warfare: In Pursuit of Military Security Examines war as a human activity, raising issues of civil-military relations, organizing for war, notions of a military-industrial complex, and philosophical, psychological and political aspects of war. Includes guest speakers, films, and field trips. Designed to capture the reality of combat and its costs; to familiarize students with key political, philosophical, and psychological issues of war and peace. Helps students to understand combat. January, 4 credits.

\section*{370 Introduction to Judicial Process and} Behavior
Judicial decision-making processes; recruitment, socialization, and behavior of judges and lawyers; other participants in the judicial process; relationships with other policy-making institutions. One semester, 3 credits.

\section*{372 American Constitutional Law}

The Supreme Court's role in the governing process; constitutional questions on separation of powers, federalism, and government property relationships; civil rights and liberties. Satisfies
the state teaching credential requirement for American Constitution. One semester, 3 credits.

376* Law and the Courts
The U.S. judicial process in selected areas of public law and criminal justice; emphasis on reforming and perfecting the system. January, 4 credits.

460* Seminar in Public Administration
Seminar dealing with such subjects as administrative behavior, decisionmaking process, personnel and fiscal management. Permission. One semester, 2 credits.

\section*{464* Complex Organizations}

An analysis of the phenomena and theories of large, complex, formal organizations. Studies the organization as an economic, social, decisionmaking, bureaucratic, and political system. One semester, 3 credits.

470 Seminar in Public Law
Seminar dealing with such subjects as jurisprudence, constitutional law, civil rights, and judicial process. Permission. One semester, 2 or 3 credits.

\section*{Political Theory}

280 Political Methodology
An examination of the major and issues of empirical political science and the use of simulation in the development of theories or models. Counts as seminar. One semester, 3 credits.

\section*{380 Normative Political Theory}

Western political philosophy from Plato to
Marx: the development of normative theory and its relevance to modern political analysis and contemporary politics; emphasis on Plato, Aristotle, Machiavelli, Hobbes, Locke, Rousseau, and Marx. One semester, 3 credits.

\section*{480* Seminar in Political Theory}

Seminar dealing with such subjects as normative political thought, empirical political theory, and political literature. Permission. One semester, 2 or 3 credits.

\section*{Additional Offerings}

390 Current Topics in Political Science
Variable credits. Permission. May be repeated for credit.

\section*{395 Directed Studies}

Credit and time arranged. Permission. May be repeated for credit.

\section*{496 Internship}

Supervised field experience in local government, law, and practical politics. Permission. One semester, variable credits. May be repeated for credit.

\section*{Professional and Pre-Professional Programs}

Qareer preparation is an important part of a Whittier education. The fields of law, education, and the health services have traditionally drawn upon liberal arts graduates for advanced study in graduate schools or professional programs. Liberal arts students select an increasingly wide variety of careers in science, management, business, social service, government, religious vocations, journalism, and the fine arts.

Certain courses in the natural sciences, social sciences, and the humanities are generally required by professional schools for admission. Whittier College also offers more advanced courses that fulfill certain professional requirements. The following programs are outlined here to help students who intend to seek professional training after graduation. Students interested in professional programs should contact their faculty advisors for additional information.

\section*{Pre-Dental}

Whittier provides excellent preparation in the basic fields required for admission to accredited dental schools. Pre-dental students should plan to complete a Bachelor's degree in a specific major before entering dental school. Although it is possible to enter some schools upon completion of 90 semester credits, three-fourths of freshmen dental students have completed four years of undergraduate work.

Certain minimum requirements are common to most dental schools. These include one year each of the following: biology, inorganic chemistry, organic chemistry, physics, and English. However, it is important that each student determines the specific courses required for the schools to which application is to be made.

\section*{Pre-Engineering (3-2 Program)}

Whittier College has established cooperative programs with engineering schools at a number of universities, allowing students to benefit from the broad intellectual training offered by a liberal arts college and the technical training offered by an engineering school. Students in the 3-2 program normally spend three years at Whittier College and two years attending an engineering school. The five-year program leads to a Bachelor of Arts degree from Whittier College and a Bachelor of Science degree in engineering from a university.

To be recommended for admission to engineering school, students must ordinarily complete the prescribed sequence at Whittier College with at least a 3.0 average overall and a minimum grade of " \(C\) " in each of the core courses. Students recommended by their advisor and the 3-2 Coordinator will normally be admitted to at least one of the cooperating universities. The B.A. from Whittier College will be awarded only after a student has successfully completed all of the graduation requirements at both schools.

Guidelines for the program, a list of participating Engineering Schools, and other information can be obtained from the Coordinator of the 3-2 Program.

\section*{Pre-Legal}

Courses in the following fields are recommended for those preparing to enter law school: business administration, economics, English, history, philosophy, political science, psychology, sociology, and speech communication. Pre-legal students may take a major in any department or area of their choice. Such students are urged to consult the College's pre-law advisors for more detailed guidance.

\section*{Pre-Medical}

Whittier provides excellent preparation in the basic fields required for admission to accredited medical schools. There is a Health Sciences Advisory Committee of faculty members which works closely with each student. Pre-medical students should plan to complete a Bachelor's degree in a specific major before entering medical school. Although it is possible to enter some schools upon completion of 90 semester credits, nearly all of the beginning medical students have completed four years of undergraduate work. The Health Sciences Advisory Committee recommends the general guidelines below for a pre-medical program at Whittier College. However, it is important that each student determines the specific courses required for the schools to which application is to be made. Certain minimum requirements are common to most medical schools. These include one year of each of the following: biology, inorganic chemistry, organic chemistry, physics, and English. Strongly recommended courses include: calculus (through integral), genetics, embryology, social and behavioral sciences, and biochemistry. Additionally recommended courses are: anatomy, physiology, microbiology, and quantitative analysis.

Students intending to pursue a pre-medical program should contact an advisor in the Biology or Chemistry Department immediately after admission to Whittier College to plan their curricula and to determine the specific requirements of the medical schools they are considering.

\section*{Pre-Therapy}

Early consultation with appropriate faculty is important for a smooth progression through undergraduate requirements and application to appropriate graduate programs.

Occupational Therapy: A major in psychology, music or art is recommended.
Physical Therapy: A major in biology or physical education (see physical education major, pre physical therapy emphasis) is recommended. Common prerequisites for application to physical therapy programs include: general biology, one year anatomy/physiology, one year general chemistry, one year physics, three semesters psychology, and one semester statistics (math, psychology, or physical education). Recommended courses: biomechanics, exercise physiology, movement anatomy, motor control, ethics, human development.

Recreation Therapy: A major in physical education/recreation with the Sport and Recreation Management emphasis is recommended for those who may want to obtain their recreational therapy certificate (see physical education/recreation major, recreation courses).

\section*{Social Work}

The Social Work Program has a unique role in the undergraduate curriculum of Whittier College. Its mission is consonant with the historical Quaker values of service, concern for the well being of individuals, and respect for diversity. The Social Work Program is accredited by the Council on Social Work Education (CSWE).

The Program offers an excellent education for undergraduates with career interests in social services, especially social work practice. Students gain knowledge and skills to work with numerous interacting systems: the individual, the family, the neighborhood and larger community, and a variety of social welfare organizations and social institutions.

The objective of the program is to prepare students for beginning generalist social work practice and for graduate social work education. Social work majors are required to take 15 units of specified liberal arts courses and 38 units of social work core courses. The core includes 400 hours of field experience in social agencies that provide supervised practice experience appropriate to the students' level of development. Student may also complete a minor in social work ( 17 credits).

Students are urged to consult the Social Work Program advisors in the Department of Sociology, Anthropology and Social Work for more information.

\section*{Teacher Education}

Whittier College has a long and proud tradition in the preparation of elementary and secondary teachers. Although a major in education is not allowed by the State of California, Whittier College is authorized by the State Board of Education and the Commission on Teacher Credentialing to offer courses of study leading to the Multiple Subject (elementary) credential with a CLAD (Cross-cultural Language Academic Development) emphasis, and the Single Subject (secondary) teaching credential.

Multiple Subject credential candidates complete a subject matter competency program that provides academic preparation in all the content areas generally taught in the elementary school. The subject matter competency program is closely aligned with Whittier College's Liberal Education Program, enabling students to work simultaneously toward a credential and completion of Liberal Education requirements. A minor in Elementary Education is also available.

Single Subject credential candidates at Whittier may earn teaching authorization in such areas as English, science, mathematics, physical education, as well as others. Contact the Department of Education and Child Development to obtain a current list of approved subject matter teaching authorizations.

Teacher credentialing programs in California generally require five years of college study. With guidance from academic (major) and Department of Education and Child Development advisors, students complete preliminary credential programs in four-andone half years.

\section*{Continuing Professional Education Program (CPEU)}

Whittier College offers a variety of educational opportunities for school teachers and administrators through its Continuing Professional Education Unit (CPEU) Program. CPEU courses are NOT applicable to any Whittier College degree or credential, but they may be applied toward State Continuing Professional Growth requirements for teachers (150 hours each five years), and they may be submitted to school districts for salary enhancement in accordance with certificated agreements.

CPEU courses are clearly distinguished from academic credits by course number. Since the CPEU program is designed for active professionals, the Whittier College instructor is responsible for documenting participation, but not for assessing learning outcomes, progress, or performance.

Information on the CPEU program is available through the Office of Graduate and Teacher Education.

\section*{3/3 Baccalaureate/Juris Doctorate Program at Whittier College}

This accelerated program identifies prospective and current students who, based upon their performance as undergraduates at Whittier College, are eligible for early admission into the Whittier Law School. A bachelors degree will be awarded upon the satisfactory completion of thirty (30) transferable units of work at Whittier Law School.

Any student may enter into the program at any time during their matriculation. If at the end of three years at Whittier College the student has achieved at least a 3.0 G.P.A. and is in the upper \(50 \%\) of those who take the L.S.A.T., that student will be eligible for admission to Whittier Law School. The student will be admitted if the student otherwise meets the criteria of admissions to Whittier Law School. The student must, by the end of three years at Whittier College, have completed all of the liberal education requirements and all of the required courses in their chosen major before they take their first year at the Whittier Law School. In addition, they must have completed ninety (90) units.

This program has been approved by the Whittier College Faculty and will be implemented upon approval by the Whittier Law School Faculty.

\section*{Psychology}

\author{
Maurine G. Behrens, Chair \\ Lorinda B. Camparo \\ Charles T. Hill \\ Lucy A. O'Connor \\ David B. Volckmann
}

\begin{abstract}
sychologists are concerned with advancing knowledge of behavior and experience. Psychology courses provide background in the social, cultural, developmental, mental, emotional, and biological bases of behavior. The primary goal of the psychology curriculum is to enable students to think like psychologists, that is, to view experience and behavior from a psychological perspective. Achieving this goal requires critical thinking and communication skills as well as know ledge of psychological theories and research methods. Students also need to understand relationships between psychology and other disciplines. In addition, the psychology faculty is concerned with individual development, including self-awareness and understanding others of diverse backgrounds. Coordinated programs of writing and research across the curriculum in psychology help prepare students for graduate work or employment in psychology and related fields. Majors or minors in psychology typically seek careers in social services, the arts, education, business, international relations, law, or specific branches of psychology.
\end{abstract}

\section*{Guidelines for a Major in Psychology}

Those planning to major in Psychology must consult with a Psychology advisor to ensure timely completion of requirements.
A minimum of 36 credits, including:
Introductory Psychology, PSYC 100, 3 credits
Biological Bases of Behavior, PSYC 222, 3 credits or Introduction to Behavioral Neuroscience, PSYC 224, 4 credits
Experimental Psychology, PSYC 212, 4 credits
Statistics, PSYC 314, 4 credits
Literature Review, PSYC 317, 3 credits
History of Psychology Seminar, PSYC 484, 3 credits
One additional laboratory course, selected from:
Behavioral Neuroscience, PSYC 322, 4 credits
Sensation and Perception, PSYC 332, 4 credits
Psychology of Learning, PSYC 334, 4 credits
Techniques of Behavior Change, PSYC 335, 4 credits
Cognitive Psychology, PSYC 336, 4 credits
At least 12 units of electives in psychology
One additional laboratory science course outside the field of psychology, 4 credits.
PSYC 38 is strongly recommended early in the major.

Due to prerequisites, the following course sequence is strongly recommended:
Freshman year - 38, 100, 222; Sophomore year - 212, 314 (preferably concurrently);
Junior year - 317, one additional laboratory course; Senior year - 484.
Students planning careers in Education should consult with their advisors and the
Education Department regarding specific credential requirements and proper sequence.
When taking psychology paired courses to fulfill the Liberal Education requirements, the
PSYC 100 prerequisite may be waived for those having junior or senior standing.

\section*{Guidelines for a Minor in Psychology}

Those planning to minor in Psychology must consult with a Psychology faculty member to ensure timely completion of requirements.
Required for a minor are 16 to 20 credits including:
PSYC 100; One laboratory course chosen from: PSYC 212, 322 , 332, 334, 335, 336;
Nine credits chosen from: PSYC 212, 222 or 224, 242, 334 or \(335,336,352,362\); and
One additional 3-credit or 4-credit course at the 200 level or above.

\section*{Course Descriptions}

\section*{38 Computers in Psychology}

Students will be introduced to various uses of computers in psychology, such as computer simulation, data collection and analysis, computer assisted instruction, and on-line literature searches. One semester, 1 credit.

\section*{48 Field Work}

Participation in psychologically relevant experiences in a supervised setting, plus weekly seminar. Placements arranged to meet interests and goals of individual students, such as working with children or adults in a community agency, etc. Prerequisites: 100, other relevant course work, and permission. May be repeated once for credit. One semester, 2 credits.

\section*{89* States of Consciousness}

Ordinary and non-ordinary states of consciousness; meditation, sleep and dreaming, biofeedback, psychoactive drugs, schizophrenia, depression, sensory deprivation and overload, and social identity. Laboratories, guest speakers, and demonstrations. January, 4 credits.

\section*{92 Psychology of Human Sexuality}

The psychology and psychobiology of human sexual responses; the develop- ment of normal sexuality; sexual deviations and incompetencies, and remediation of sexual problems. January, 4 credits.

\section*{100 Introductory Psychology}

An introduction to major areas of psychology, emphasizing theories, research methods, critical thinking, and communication skills, to enable students to think like psychologists. One semester, 3 credits.

\section*{212 Experimental Psychology}

Basic research designs and scientific methods for testing theories of sensation, perception, motivation, cognition, animal learning, and social psychology. Lecture and laboratory. Prerequisite: 100. One semester, 4 credits.

\section*{222 Biological Bases of Behavior}

Introduces the neural, genetic, biochemical, and structural mechanisms that underlie normal and abnormal human behavior. Lecture, films, and visual aids. Prerequisite: 100. One semester, 3 credits.

224* Introduction to Behavioral Neuroscience
Introduction to the study of the neural mechanisms that underlie normal human and animal behavior and the consequences of brain damage and dysfunction. Lectures and laboratories (some dissection required). Prerequisite: 100. Recommended: Some high school biology. (Not open to those who have taken 222.) One semester, 4 credits.

\section*{242 Child Psychology}

Major theories and issues relevant to children's physical, emotional, social, and cognitive development from conception through preadolescence. Prerequisite: 100. (Not open to those who have taken CHDV 102 or 315.) One semester, 3 credits.

\section*{244 Psychology of Adolescence}

Major theories and issues relevant to the physical, emotional, social, and cognitive development of adolescents. Prerequisite: 100. One semester, 3 credits.

\section*{314 Statistics}

Data analysis in the social sciences; analysis of distributions, central tendency, variability, correlation, and parametric and non-parametric statistical tests; use of computer packages including SPSS. Prerequisites: A college math course and sophomore standing. One semester, 4 credits.

\section*{317 Literature Review Seminar}

Seminar on conducting literature reviews on psychological topics, resulting in a scholarly paper written by each student. Prepares for 400level courses in Psychology. Opportunity to begin developing research proposal for 417. Prerequisites: 212 and 314. One semester, 3 credits.

\section*{322* Behavioral Neuroscience}

Role of our biological nature in psychological experience and behavior. Topics include learning and memory; motivation and emotion; sensation and perception; pain, stress, and psychosomatic illness; sleep, dreaming, and circadian rhythms; brain dysfunction and damage; Alzheimer's and Parkinson's Diseases and schizophrenia. Seminar discussion and laboratory. Prerequisite: 222 or 224 . One semester, 4 credits.

\section*{332* Sensation and Perception}

Considers human and animal sensory abilities and limitations, and how they are reflected in their perceptions of the world; the nature and development of these perceptions, and the circumstances that distort them. Lecture, discussion, and laboratory. Prerequisites: 212, and 222 or 224 . One semester, 4 credits.

\section*{334 Psychology of Learning}

Human cognition and animal learning covering basic phenomena in classical and instrumental conditioning, memory, language learning, concept formation, problem solving, and thinking. Lecture and laboratory. Prerequisite: 100. One semester, 4 credits.

\section*{335* Techniques of Behavior Change}

Principles of learning theory; application of behavior-change techniques to human behavior in various settings, including designing and evaluating behavior-change programs; consideration of ethical issues. Lecture, laboratories, field observations, and guest speakers. Prerequisite: 100. Recommended: 212. January, 4 credits.

\section*{336* Cognitive Psychology}

The study of human thought processes and mental representations including topics such as attention, perception, memory representation and improvement, mental imagery, thinking, and artificial intelligence. Lecture and laboratory. Prerequisite: 212. One semester, 4 credits.

\section*{338* Motivation and Emotion}

Theory and research regarding the biological, behavioral, and social bases of motivational and emotional behavior. Prerequisite: 100 . Recommended: 212. One semester, 3 credits.

\section*{348 Psychology of Aging}

Current theories, issues, and research on adulthood, with emphasis on cognitive and personality changes occurring during middle and old age. Prerequisite: 100. One semester, 3 credits.

\section*{352 Social Psychology}

Issues, theories, and research in social psychology; non-verbal communication, person perception, attitudes, social influence, aggression and helping, social exchange, interpersonal relationships. Prerequisite: 100 or SOC 200. One semester, 3 credits.

\section*{354* Diverse Identities}

Theory and research on processes of identity formation and change. Topics include ethnic, racial, national, religious, gender, sexual, occupational, familial, and other identities. Analyzes stigma, prejudice, discrimination, and conflict from a global perspective. Prerequisite:

100 or SOC 200 or junior standing. One semester, 3 credits.

\section*{362 Psychology of Personality}

Study of major theories of personality, as well as the empirical and clinical research that illustrates and tests them. Prerequisite: 100. One semester, 3 credits.

\section*{364 Psychology of Women}

Theoretical and empirical approaches to the study of the psychology of women; the effects of social context and the interplay of gender, race, class, and culture on psychological development, with special attention to the differential effects on women and men.
Prerequisite: 100. One semester, 3 credits.

\section*{368* Individual Differences}

Examines individual differences in personality, mental ability, motivation, and cognitive styles in relation to biological and environmental contexts; includes study of psychometrics and research findings. Prerequisite: 100.
Recommended: 314. One semester, 3 credits.

\section*{372 Abnormal Psychology}

Study of the description, causes, and treatments of dysfunctional behaviors; includes both clinical and empirical research perspectives. Prerequisite: 100. One semester, 3 credits.

374* Psychology of Exceptional Individuals Characteristics, needs, and impact of atypical people throughout the lifespan; the mentally gifted and creative, as well as those with physical, cognitive, emotional, or behavioral disorders that begin during the developmental period. Prerequisite: 100. Recommended: 242, 244 , or 348 . One semester, 3 credits.

\section*{390* Selected Topics in Psychology}

490* Variable topics and credits.
Prerequisites: 100 and permission. May be repeated for credit.

\section*{395* Directed Study}

Credit and time arranged. Prerequisites: 100, permission, and extensive background in psychology or other social sciences. May be repeated for credit.

\section*{396* Research Practicum}

Opportunity to learn and apply research skills by assisting faculty on research. May include research design, subject recruitment, data collection, data analysis, and writing up findings. Prerequisites: 212, 314, and permission. One semester. Variable credits. May be repeated for credit.

\section*{417* Research Seminar}

Advanced seminar to gain individual experience in conducting psychological research involving collection and analysis of data to test theoretical models. Recommended for psychology majors planning to attend graduate school.
Prerequisites: 212, 314, and 317. One semester, 3 credits.

\section*{484 History of Psychology Seminar}

History of psychological thought and systems from classical times to the present. Major psychological theories and theorists are studied in relation to the broader context of intellectual and social history. Prerequisites: 317 and senior standing. One semester, 3 credits.

\section*{496 Independent Research}

Opportunity to conduct independent individual research. Prerequisites: \(212,314,317\), and permission. Credit and time arranged.

\section*{Retigious Studies}

Laura Ammon
Marilyn Gottschall
Joseph L. Price
Glenn Yocum, Chair

he Religious Studies Department at Whittier College provides students an opportunity to study the world's religions in one of the most religiously and ethnically diverse places in the world: greater Los Angeles. Our program strives to assist students in understanding both the global aspects of religious traditions and the specific ways in which those traditions are embedded in local environments, especially the local southern California environment. The program vies religion as a social institution and sees the inquiry into religious practices and beliefs as an occasion for becoming self-conscious about theoretical issues in the study of religion. The study of religion at Whittier College also contributes to the student's self-knowledge and/or search for meaning and values.

\section*{Guidelines for a Major in Religious Studies}

A minimum of 36 credits, of which 18 must be at the 300 level or above:
Exploring Religion, REL 200, 3 credits
Choice of one:
Selected Topics: Seminar in Religion, REL 490, 3 credits Directed Studies, REL 495, 2 or 3 credits
Three credits in each of the six categories: Sacred Stories, Texts and Scriptures Jewish and Christian Religions Asian, African and Aboriginal Religions Religion and Culture Themes in the Study of Religion Methods in the Study of Religion
No more than 6 credits may be simultaneously counted toward the major and toward the fulfillment of College-wide Liberal Education requirements.

Students who major in Religious Studies must have one of the Religious Studies faculty as their advisor.

\section*{Guidelines for a Minor in Religious Studies}

A minimum of 18 credits, including REL 200 and 12 additional credits chosen from Religious Studies courses taught by faculty whose primary appointment is in the Religious Studies Department.

\section*{Course Descriptions}

\section*{Introductory and Survey Courses 200 Exploring Religion}

What kinds of questions are religious questions? What role does religion play in human life? What are some of the ways in which religion can be studied? Examples from various theoretical perspectives and from various religious traditions. One semester, 3 credits.

\section*{201 Monotheisms}

An introductory survey of major texts, beliefs, and practices of Judaism, Christianity, and Islam. One semester, 3 credits.

\section*{202 Religions of Asia}

An introductory survey of the major texts, beliefs, and practices of Hinduism, Buddhism, and the religious traditions of China and Japan. One semester, 3 credits.

\section*{Sacred Stories, Texts, and Scriptures 210* Introduction to the Bible}

An introduction to biblical literature and the social contexts in which the Hebrew Bible and New Testament arose. Emphasis on contemporary critical methods used to understand the Bible. One semester, 3 credits.

\section*{211* Enduring Values in New Testament Literature}

Selected passages from the New Testament (excluding the Gospels) related to the birth and growth of the Christian community, conflicts it experienced, resultant order and orthodoxy, and values of the New Testament for today. One semester, 4 credits.

\section*{213* Religions of Classical India}

A survey of India's major indigenous religious traditions-Brahmanical- Hindu, Buddhist, and Jain. Study of selected major texts of these traditions, e.g. Vedas, Upanishads, Bhagavad Gita, Buddhist and Jain scriptures, Hindu myths. Attention to the historical and social contexts in which these traditions originated and developed. One semester, 3 credits.

\section*{311* Life and Teachings of Jesus}

The four Gospels; Jesus' birth, baptism,
temptation, transfiguration, passion, crucifixion, resurrection; his teachings about war, wealth, divorce, miracles, kingdom of God, end of the
age; symbolism in Gospel of John. One semester, 4 credits.

\section*{313* Heroes, Gods and Gurus: Introduction} to the Literatures of India
Examination of selected texts representative of India's 3000-year-old religious and literary tradition. Included will be translations from the Sanskrit Epics and Kalidasa's plays, translations from Tamil classical poetry and devotional hymns, and contemporary Indian novels written in English. One semester, 3 credits.

\section*{316* Dante}
(Same as ENGL 323) One semester, 3 credits.

\section*{Jewish and Christian Religions}

\section*{221* History of Christianity}

An introductory survey of Christianity through an examination of its history, rituals, institutions, theology, and social concerns. Sample themes include the Bible, the mass, monasticism, and the relation of church and state. One semester, 3 credits.

\section*{222* Judaism}

A survey of the major issues, themes, and practices of the Jewish religion and civilization. The Jewish tradition's place in the development of western civilization as seen in historical overview: from biblical times to rabbinic and medieval times to the modern era. One semester, 3 credits.

\section*{321* Religion in America}

Distinct religious movements, themes, and personalities in American history before 1850. Topics include native American religions, Puritanism, California missions, revivalism, frontier religion, and transcendentalism. One semester, 3 credits.

\section*{322* The Victorian Religious Crisis}

An investigation of the religious dilemmas that perplexed 19th Century Great Britain. Study of crises like the development of higher biblical criticism, the spirit of evolution, and the emergence of industrialization. Key figures include Arnold, Newman, Maurice, and Kingsley. One semester, 3 credits.

\section*{326* Early American Literature}
(Same ENGL 337) One semester, 3 credits.

\section*{Asian, African, and Aboriginal Religions}

235, 236 Arabs and Muslims
(same as INTD 225,226) Two semesters, 3 credits each.

\section*{330* The Buddha and Buddhism}

Significance of the life of Buddha and founding of his order for the development of the Buddhist tradition throughout Asia, from philosophical, sociological, and historical perspectives. One semester, 3 credits.

\section*{331* Islam}

An introductory thematic survey of Islam with some attention to the historical development of the tradition. Principal themes include: the Qur'an, ritual practice, Islamic society, mysticism, the diversity of the Islamic world, Islam and modern politics. Readings from a variety of perspectives. Field trip. One semester, 3 credits.

\section*{333* Hindu Religion and Culture}

India's principal religious tradition viewed primarily in terms of its variegated expression in contemporary south India. Topics include Hindu gods, temples, and their festivals, asceticism and monasticism, the caste system, Hindu women and domestic ritual, and the philosophical underpinnings of the tradition. Films and slides. One semester, 3 credits.

\section*{335* The Visual Arts of India}
(Same as ART 380) One semester, 3 credits.

\section*{Religion and Culture \\ 240* Cinema and Religion}

Contemporary cinema as a medium for raising religious questions in a secular context and as a medium for exploring the religious dimensions of rituals. Movies by Bergman, Buñuel, Fellini, Kubrik, and Capra, among others, are viewed and analyzed. One semester, 3 credits.

\section*{241* Sport, Play and Ritual}
(Same as INTD 241) January, 4 credits.

\section*{245* Bioethics}
(Same as PHIL 240) One semester, 3 credits.

\section*{340* Contemporary Ethical Issues}

An examination of contemporary ethical issues from a theological perspective. Topics include world hunger, nuclear arms, capital punishment, human sexuality, abortion, euthanasia, drug abuse and genocide. One semester, 3 credits.

\section*{341* Radicals and Reformers}

An inquiry into the ways in which faith and religious commitment can motivate the struggle for social justice and transformation. Examination of the lives of individuals in various faith traditions. One semester, 3 credits.

\section*{342* Sound and the Religious Experience} An exploration of religious music as a way of understanding the world and constructing meaning. Emphasis on the relationship of rhythm to healing and the importance of chanting for inducing ecstasy. Examples span world cultures, historical periods, and musical styles, including Tibetan chants, African American gospel music, Jewish wedding music, and John Coltrane. One semester, 3 credits.

\section*{345* Male and Female}
(Same as ANTH 327) One semester, 3 credits.

\section*{346* Myth, Symbol and Meaning}
(Same as ANTH 307) One semester, 3 credits.

\section*{Themes in the Study of Religion}

\section*{251* Monks, Nuns and Ascetics}

An introductory examination of the theory and practice of asceticism in Christianity, Hinduism, Buddhism, and Jainism. Discussion of autobiographical works by Mohandas Gandhi and Thomas Merton. Attention to the social and institutional dimensions of asceticism. Field trips, films, short papers. One semester, 3 credits.

\section*{252* Modern Theologies}

Examination of the philosophical, political, and social roots of modern theologies. Particular attention will be devoted to the rise of neoorthodox, process, African-American, feminist, and political theologies in the 20th century. One semester, 3 credits.

\section*{253* Women and Religion}

An introductory examination of religious definitions of women, of women's religious experiences, and of feminist theologies and
transformation of religious traditions. Attention to course topics in cross-cultural perspective. One semester, 3 credits.

\section*{255 Theories and Human Nature}
(Same as PHIL 120) One semester, 3 credits.

350* Latin American Liberation Theologies An introduction to the understanding of justice as the central theological concern for the oppressed peoples of Latin America. Distinctive features of the cultures and theologies in different countries will be examined. One semester, 3 credits.

\section*{351* Public and Popular Religion}

An examination of distinct religious communities and themes in American culture since 1850. Topics include Mormonism, Shakers, utopian communities, civil religion, and televangelism. One semester, 3 credits.

\section*{352* Pilgrimage}

Pilgrimage as a cross-cultural phenomenon Attention to the history, literature, ritual, and social processes of religious journeys in Christianity, Islam, Buddhism, and the Hindu tradition. One semester, 3 credits.

\section*{353* Humans and the Cosmos}

An examination of selected ways in which humans have conceptualized the universe and how these various conceptions influence different understandings of humankind's place within the cosmos, prescriptions for human social order, and attitudes toward the nonhuman world. Readings include myths of creation from various religious traditions, accounts of religious rituals closely tied to myths about cosmic origins, essays by modern naturalists, and a novel by John Steinbeck. One semester, 3 credits.

\section*{354* God and Religion}
(Same as PHIL 350) One semester, 3 credits.

\section*{355* Existentialism}
(Same as PHIL 320) One semester, 3 credits.

\section*{356* Renaissance Literature}
(Same as ENGL 327) One semester, 3 credits.

\section*{357* Milton}
(Same as ENGL 329) One semester, 3 credits.

\section*{358* Hemingway and Eliot}
(Same as ENGL 345) January, 4 credits.

\section*{359* Religion and Colonialism}

This course explores several classics in the study of religion. It focuses on how these works reflect the connection between European theories about "native" and "primitives," and the expansion of European political and economic power into environments inhabited by these "natives." One semester, 3 credits.

\section*{Methods of the Study of Religion 265 Principles of Sociology \\ (Same as SOC 200) One semester, 3 credits.}

361* Approaches to the Study of Religion An introduction to the various ways religion has been understood by scholars in the modern western world. Perspectives stressed include the history of religions/phenomenology, psychology, sociology, and anthropology. One semester, 3 credits.

\section*{365 Critical Procedures in Language and Literature}
(Same as ENGL 400) One semester, 3 credits.

\section*{366 Historical Methods}
(Same as HIST 380) One semester, 3 credits.

\section*{Additional Offerings}

490* Selected Topics: Religion
Permission. One semester, 3 credits. May be repeated for credit.

\section*{495 Directed Studies}

Credit and time arranged. Permission. May be repeated for credit.

\title{
Sociology, Anthropology, and Social Work
}

\author{
Claudia Dorrington \\ Zhidong Hao \\ Leslie Howard, Chair \\ David Iyam \\ Sal Johnston \\ Emelie A. Olson \\ Paula Sheridan \\ Charles T. Hill, affiliate \\ Robert E. Owens, affiliate
}
lociology is the study of social relations, associations, and institutions in human societies. It seeks to develop reliable understanding about the nature of social organization. Whittier College's curriculum is designed to help students understand the principal perspectives, theories, and research methodologies of sociology. Our location within an interdisciplinary department including Anthropology and Social Work helps us to explore the relation of social arrangements to both culture and individual experience and to investigate the relevance of the discipline for various forms of practice, for social policy, and for social action.

A major in sociology provides graduates with a solid liberal arts background for a broad variety of careers. Our graduates are employed in fields such as professional sociology, urban planning, social work, community development, social welfare, health services, education and teaching, juvenile and criminal justice systems, social research and data analysis, public administration, law, politics, racial and minority relations, business, and local, state and federal government.

\section*{GUidelines for a Major in Sociology}

A minimum of 30 credits, including:
One Course in Introductory Sociology, from courses SOC 100 through 108, 3 credits Two courses in Research Skills, including: Statistics, SOC 314, 4 credits and one other course numbered SOC 310 through 319, 3 to 4 credits.
One course in Cultural and Micro Perspectives, from courses SOC 320 through 349, 3 credits.
One course in Macro Perspectives from courses numbered SOC 350 through 369, 3 credits.
One course in Institutions and Populations from courses numbered SOC 370 through 389, 3 credits.
One course in Historical and Theoretical Context from courses numbered SOC 302 through 306, 3 credits.
Departmental Integrative Seminar, SOC 408, 2 credits.
At least 18 credits in other social sciences, including:
At least one course in Anthropology numered 300-419, and at least one course in the Social Work offerings.

At least 12 credits above the 300 level or an approved minor must be taken in a particular discipline or program other than Sociology. Many students take minors in language or in regional or Women's Studies.

Highly recommended:
At least one internship or practicum experience within the Sociology, Anthropology, or Social Work offerings; proficiency in a second language; and some study outside the United States. Majors planning graduate study should take an additional course in Research Skills and an advanced course in Historical and Theoretical Context (402-406).

\section*{Guidelines for a Minor in Sociology}

A minor in Sociology requires 18 credits, including one course numbered 100 through 108 (or approved 200 level alternative), one course numbered 310 through 319, one course numbered 300 through 306 or 400 through 409 , and a total of at least 12 credits above the 300 level.

\section*{Course Descriptions}

\section*{14 Internship in Urban and Organizational Studies \\ Supervised placement in urban planning agencies and settings or in other specialized organizations. One semester, 2 credits.}

\section*{100 Introduction to Sociology}

A general introduction to the topics, methods, and theories of the discipline. The course will address basic social processes and institution, including social solidarity, inequality, conflict, interaction, ideology, culture, and social structure. Open to freshmen or sophomores who have not taken another introductory sociology course. (100-106, 200-206). One semester, 3 credits.

\section*{102 American Society}

Introduces sociology through analysis focusing on race, class, gender in U.S. social organization and culture in historical perspective. Open to Freshman or Sophomores who have not taken another introductory sociology course (100-106,200-206). One semester, 3 credits.

\section*{104 Sociology in the Global Context}

Introduces Sociology by applying its concepts and methods to an analysis of social phenomena in the context of global social organization. Open to freshman or sophomores who have not taken another introductory sociology course (100-106, 200-206). One semester, 3 credits.

215 Geographic Information Systems
(Same as EES 140) One semester or January. 4 credits.

\section*{216 Sociology Through Photography}

An introduction to the use of visual tools for the exploration of society. Through the creation and analysis of photographs, students will broaden their understanding of social life and social institutions. Topics covered will include interaction with subjects, selection of images, use of photographic techniques, "truth" and representativeness, integrating photographs and text, and ethical issues. January session, 4 credits.

\section*{221* Sociology of Religion}

Explores diverse sociological understandings of religious ideas and behavior and the social and political implications of different kinds of religious beliefs and organizations. It examines the relation of religion to concepts of history, the natural world, human nature, and social order and the significance of notions of sacredness. January, 4 credits.

\section*{261 Investigating Green Politics}

Combines an overview of green political thought with firsthand, field based investigation of the range and relevance of environmental political issues and movements. Permission. January, 4 credits.

\section*{287 Workshop in Urban Studies}

The workshop uses Los Angeles and Tijuana as settings for studying urban spatial and social organization, with special attention to the design and use of public space. It examines the economic, demographic, and cultural linkages between these two areas and locates each city in terms of current global economic, social, and cultural transformations. Permission. January, 4 credits.

\section*{289 African American Experience}

Analyzes African American social institutions and communities over time, with special attention to the family, to the black church, and to the organization of efforts to secure civil rights. Also examines the implications of racism for African American populations and communities and the relation of these populations and communities to the occupational structure, to athletics, to political processes, and to the welfare and criminal justice systems. One semester, 3 credits.

\section*{290 Death, Dying, and Bereavement}

Explores historical and cultrual variations in attitudes and practices surrounding death, dying and bereavement. We examine major causes of death across age and other social groups, social inequality related to death and dying, individual and social practices of grieving, and the ethics of dying in an age of technology. We study death-related issues both at the level of social organization and in terms of how they affect people at varying stages of the life course. January session, 4 credits.

\section*{302 Social Theory in Social Context}

An examination of major figures and debates in the history of sociological theory. Original works of Marx, Durkheim, Weber, Simmel, and more recent writers will be read in conjunction with materials on the historical settings in which they wrote. Permission. One semester, 3 credits.

\section*{310 Approaches to Social Research}

Techniques for basic and applied social research Research skills will be developed in the complementary use of informant interviews, observations, surveys, and documents in addressing theoretical issues in the social sciences and practical applications in fields such as social work, healthcare delivery, law, and business. Prerequisite: 100 or 102 or 104 or permission. One semester, 3 credits.

\section*{311 Field Research: Crossing Cultural Boundaries}
(Same as ANTH 311) One semester or January, 3-4 credits.

\section*{314 Statistics}
(Same as PSYC 314) One semester, 4 credits.

\section*{322 Sociology of Culture}

Sociological perspectives on the study of cultural practice and representations, with special attention to issues of resistance.
Prerequisites: 100, 102, or 104 or Permission.
One semester, 3 credits.

\section*{340 Social Psychology}
(Same as PSYC 352) One semester, 3 credits.

\section*{342 Micro Sociology}

Sociology at the level of experience and interaction, with special emphasis on the ways people make sense of social experience. One semester, 3 credits.

\section*{344 Diverse Identities}
(Same as PSYC 354) One semester, 3 credits.

\section*{350* Modern Society}

This course examines forms of social structure, culture, and interaction associated with highly industrialized societies. Topics addressed include the nature of the polity and economy of advanced nations, the growth of the welfare state, work, popular culture, and individualism. Theories of mass society, world systems, and restructuring are reviewed. One semester, 3 credits.

\section*{352* Social Class and Inequality}

Students will apply contrasting theories concerning who gets what and why, in order to compare social class formations in the contemporary United States with those in other settings. One semester, 3 credits.

\section*{356* Comparative Urban Development}

A comparative examination of urbanization in varying historical and geographical settings and in the light of major theories of urban growth, organization, and community. One semester, 3 credits.

\section*{357* Sociology of Development: Third World Studies \\ Considers development issues related to economics, politics, inequality, human rights, gender, and environment and examines modernization, dependency, and world-system approaches to the theoretical understanding of these issues. One semester, 3 credits.}

358* Population Problems and Policy
Policy-oriented examination of the interplay between demographic processes (fertility, mortality, migration, immigration) and social organization. Techniques of demographic analysis are introduced, and current population issues and policy alternatives are examined against a background of world population history and projections. One semester, 4 credits.

\section*{366* Social Planning and Evaluation}

Planning of urban physical and social organization; designing organizations and social programs; and evaluating organizational and program effectiveness. Special attention will be given to the relation between the technical and political aspects of planning decisions. One semester, 3 credits.

373 Human Behavior in the Social Environment (Same as SOWK 373) One semester, 3 credits.

\section*{374 The Cultural Contexts of Childhood}
(Same as ANTH 374) One semester, 3 credits.

\section*{378* Professions, Work and Careers}

The organization of work settings, occupations, professions, and careers in contemporary United States, examined in historical and comparative context. Attention is given to the interplay of organizational form, productivity, and the lives of individuals. One semester, 3 credits.

\section*{380* Sociology of Health and Welfare}

Examines healthcare delivery and social welfare systems as social institutions, attending to the policies, systems, and interactions through which societies provide their members with health and welfare services. Topics to be covered include how health and welfare problems are defined, interest groups that shape service provision, the history of health and welfare systems, professional socialization of service providers, and the integration of various health and welfare systems and functionaries. An
introductory course in sociology or social work is strongly recommended. One semester, 3 credits.

\section*{381 Criminology}

Critically examines the nature and extent of crime, and the causes and prevention of criminality. Covers various strands of criminological theory, including choice theory, trait theory, social structure, social process, conflict theory, and integrated theories. Pays special attention to how particular behaivors and people are defined as criminal. Critically examines the institutions and workings of the criminal justice system. One semester, 3 credits.

\section*{382 Sociology of Sport and Recreation}
(Same as PER 382) One semester, 3 credits.

\section*{383* Deviance and Social Control}

The course will address the social and historical context of behaviors defined as deviant, as well as the role of particular institutions, professions and interest groups in shaping these definitions. One semester, 3 credits.

\section*{384* Sex and Society}

Examines sexuality as a social system: the changing norms, practices, conceptualizations, meanings, social significance and relations of power producing and organizing sexuality. Particular attention is paid to the ways that gender, race and class structure sexuality. Prerequisite: Junior standing or Permission. One semester, 3 credits.

\section*{385 Sociology of Gender}

This course will explore the ways that people "do gender," how gender structures and stratifies the social order and how gender differences are reproduced culturally. It will examine femininity and masculinity in their contemporary, cross-cultural, and historical forms and will study the production and maintenance of gender as a master social status, investigating how gender norms are both constructed and challenged in popular culture, family and work arrangements, organizations, personal relationships, and social movements. One semester, 3 credits.

\section*{386 Racial and Ethnic Relations}

An examination of central theories and concepts in the field. Specific attention will be paid to

\section*{Sociology, Anthropology, and Social Work}
topics such as the historical emergence of minorities, ethnic solidarity, and racism. Contemporary trends in the dynamics of intergroup relations in southern California, the United States and abroad will be considered. One semester, 3 credits.

\section*{387 Life in Minority Environments}
(Same as ANTH 387) One semester, 3 credits.

\section*{388 Asians in America}

Examines the lives of Asians in America from the earliest Chinese immigrants arriving in the mid-19th Century to the most recent arrivals from Korea, Indo-China, and the Philippines. The culture and values of these peoples will be contrasted with those of receiving communities' values in order to understand their experiences with cultural conflicts, racism, and assimilation. One semester, 3 credits or January, 4 credits.

390, 490 Selected Topics in Sociology
Variable credits. Permission. May be repeated for credit.

\section*{395, 495 Directed Studies}

Variable credits. Permission. May be repeated for credit.

404 Topics in Contemporary Sociological Theory
A comparative, in-depth examination of central issues in contemporary sociological thought. Permission. One semester, 3 credits.

\section*{406 Feminist Social Theory}

Examines the perspective and contribution of feminist theory: particularly the intellectual and social circumstances of their production, their analytic strengths and weaknesses and the political ramifications of their analyses. Introduces a variety of intellectual traditions within feminism, including liberal, Marxist, radical, socialist, psychoanalytic, anti-racist, post-modern and post-colonial. Permission. One semester, 3 credits.

\section*{408 Senior Integrative Seminar}

A capstone writing-intensive course exploring application of sociological knowledge and skills to the production of public scholarship. Prerequisite: Senior status Sociology major/minor or permission. One semester, 2 credits.

\section*{414 Practicum in Urban and Organizational Studies}

Supervised field experience in urban planning agencies and settings or in other specialized organizations. Involves a careful examination of the interplay of theory and practice for the advanced student. May be repeated for up to 6 credits. Permission. One semester, 1 to 3 credits.

Oltnthropology asks the question, "What does it mean to be human?" It seeks the answers to that question by integrating many sources of knowledge: How is being human affected by the dynamics between culture, the environment, and biology? What can we learn about the total repertoire of being human by looking at societies very different from middle-class American society? What do archeological sites reveal about human societies in the past? How can the reflexive nature of anthropology better prepare us for living in today's diverse world?

The study of anthropology prepares students to 1) better understand themselves, 2) better understand and communicate across cultural boundaries, 3) prepare for careers involving social interaction and policy, for example, academic and applied anthropology, business, education, environmental protection, government, health, law, religion, social work, etc.; and 4) prepare for graduate work in anthropology, business, foreign area studies, law, other social sciences, and related fields.

\section*{Guidelines for a Major That Includes Courses in}

\section*{Anthropology}

Two alternatives are available in Anthropology: (1) intra-departmental majors split between Anthropology and Sociology. These should include a minimum of 30 credits, divided evenly between the two disciplines. Courses in anthropology should be selected according to the Guidelines for a Minor in Cultural Anthropology below, (2) interdisciplinary majors in cross-cultural studies such as in Comparative Cultures (See Catalog description of Comparative Cultures Major).

\section*{Guidelines for an Intra-Departmental Minor in \\ Anthropology}

A minor requires 18 credits including:
Biological Anthropology, ANTH 200, 3 credits
One course on Peoples of the World, from courses ANTH 210 through 218, 3 credits
Myth, Symbol and Meaning, ANTH 307, 3 credits
One of the following courses:
Male and Female: The Anthropological Perspective, ANTH 327, 3 credits
The Cultural Contexts of Childhood, ANTH 374, 3 credits
Life in Minority Environments, ANTH 387, 3 credits
Expressive Arts of Africa, ANTH 321, 3 credits
Environmental Anthropology, ANTH 323, 3 or 4 credits
One of the following courses:
Field Research: Crossing Cultural Boundaries, ANTH 311, 3or 4 credits
Approaches to Social Research, SOC 310, 3 credits
At least one January course in Anthropology.

\section*{Course Descriptions}

17 Internship in Anthropology
Supervised field experience in a variety of work and organizational settings. May be repeated for credit. Permission. One semester, 1-2 credits.

\section*{200 Biological Anthropology}

The course studies the physical aspects of human populations and the evolutionary history of our species. This history is studied through fossil records. Our close primate relatives are another major focus of the class, since we share ancestors and general adaptation with them. A third area of study is variation among contemporary humans which underlies observable changes as our species continues to evolve. One semester or January session, 3 credits.

\section*{210 Peoples of the World: Global}

Detailed studies of several societies that are geographically and culturally distant from mainstream American society. Focus on issues
of ecology, political economy, and social and cultural change as they influence the diverse behaviors and traditions of selected peoples. Several regions are studied in the context of their global and internal similarities and differences, as well as their cross-cultural and internal dynamics. One semester, 3 credits.

\section*{211 Peoples of the World: Asia}

This course offers students a comparative study of the diverse cultures of Asia. The course implements anthropological concepts to examine the internal and cross-cultural mechanisms shaping and reshaping the region. The impact of social and cultural change resulting from shifting local, national, and global dynamics will be examined through detailed ethnographic studies of specific cultures and societies within East, South, and Southeast Asia. One semester, 3 credits.

\section*{212 Peoples of the World: Africa}

This course is designed to give students an understanding of the diverse cultures of subSaharan Africa. An examination of the fundamental patterns of traditional African cultures will be used to understand current events in Africa. Illustrates how the daily lives of the majority of African people are influenced by tenacious indigenous institutions. One semester, 3 credits.

213 Peoples of the World: Native Americans Who are/were the people native to North America? What has been the role of Native Americans in the formation of "America?" What is unique to their circumstance within a complex state structure and global systems? Where do various Native American groups share cultural patterns and where are there differences among them, for example, in origin, environmental setting, world view, family structure, and political system? How do these patterns influence their responses to contemporary issues? This course will explore the issues raised by such questions through detailed ethnographic studies of selected societies. One semester or January session, 3 credits.

\section*{214 Peoples of the World: Latin America} The term "Latin America" covers a wide range of cultures and peoples: from the Caribbean Islands to Mexico, from Central America to South America, from the Amazon to the Andes. Latin America, therefore, is a world of great contrasts--contrasts between megacities and rural hinterlands, between the wealthy and the impoverished, between industrialized zones and areas of rudimentary subsistence production, and between images of a peaceful paradise and those of extreme violence and terror. This course will examine the construction of various cultural identities in this diverse region and introduce students to the key issues confronting Latin Americans today as they are revealed in selected ethnographic studies. One semester, 3 credits.

\section*{307 Myth, Symbol and Meaning}

Focuses on selected myths, symbols, and systems of meaning to understand the ways in which humans create meaning and communicate ideas. Sophomore standing or above. One semester, 3 credits.

\section*{311 Field Research: Crossing Cultural Boundaries}

Introduction to ethnographic field research as a general tool for understanding and communicating with people, especially those whose culture is different from one's own. Teaches the perspectives, aims, and skills of field research through the use of (1) films and written materials that describe field research experiences and which record the results of such research and (2) a series of fieldwork exercises. Focus is on the nature and meaning of cultural diversity and its implications for crosscultural communication. One semester or January, 3 or 4 credits.

\section*{321 Expressive Arts of Africa}

Explores the symbolic and aesthetic representations, implicitly understood and explicitly expressed by selected African peoples in cultural communication. The concepts discussed will center around the relationship between art, ritual, and symbols in cultural expression. The focus is the expressive cultures of sub-Saharan Africa as communicated mainly in the sculpture of the region. The aim is to read culture through art and to understand how Africa's visual arts constitute the cultural encyclopedia of specific African groups. One semester, 3 credits.

\section*{323* Environmental Anthropology}

The changes that humans make in the natural environment are related to their world views and to their ideas about what the relationship between humans and nature should be. This course will explore these relationships crossculturally through the readings of ethnographies and the viewing of films. Also included will be field trips within California. Sophomore standing or above or instructor's permission. One semester, 3 credits, or January, 4 credits.

\section*{327 Male and Female: The Anthropological Perspective}

Bio- and socio-cultural factors that determine feminine and masculine behavior; evidence from non-human behavior; cross-cultural variations in gender identity and role-patterning. Sophomore standing or above. One semester, 3 credits.

\section*{342 Sound and the Religious Experience} (same as REL 342) One semester, 3 credits.

374 The Cultural Contexts of Childhood Childhood in a variety of cultures, primarily focusing on societies in Africa, Asia, Latin America, and Oceania. How does the child become a full member of a particular society and what are the socio-cultural contexts that influence that process? Examines methods of studying childhood cross-culturally. Prerequisites: 210 or 311 and PSYC 342 or CHDV 105. One semester, 3 credits.

\section*{387 Life in Minority Environments}

Case studies of minority communities, with a primary focus on the United States but drawing on studies from other parts of the world. Focuses on the everyday life, problems, viewpoints, and perceptions of individuals within these settings. Examines the production
of marginalization, emphasizing the relation of the local to the global. One semester, 3 credits.

\section*{388 Asians in America}
(same as SOC 388) One semester, 3 credits.

\section*{417 Internship in Anthropology}

Supervised field experience in a variety of work and organizational settings. May be repeated for credit. One semester, 1 to 2 credits. Permission.

490 Current Topics in Anthropology
Permission. Variable credits.

495 Directed Studies in Anthropology
Time and credit arranged. Permission. May be repeated for credit.

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ocial Work is a profession committed to the enhancement of human wellbeing, the alleviation of poverty and oppression, and the promotion of social justice. The profession practices in a wide variety of settings including family services, child welfare, corrections, probation, psychiatric and medical centers, drug and alcohol treatment, community organizations, and social policy planning. With awareness of the major social and technological changes taking place in today's society, the Whittier College Social Work program prepares students for entry-level positions in generalist social work practice where they can effectively respond to the variety of human welfare needs prevalent in contemporary society.

The undergraduate program in Social Work is accredited by the Council on Social Work Education. It provides a professional foundation curriculum that contains the common body of knowledge, values, and skills of the profession. The Program specifies a common base of liberal arts courses to be taken prior to enrollment in the core foundation courses. The foundation courses are sequenced over three years; the program culminates in the senior year with an intensive, professionally supervised field practicum, and an integrative seminar that seeks to assess the outcomes of the social work training. Students are urged to consult Social Work Program advisors in the Department of Sociology, Anthropology and Social Work for information and guidance.

Selected courses are also of interest to students in psychology, child development, pre-medicine, pre-physical therapy, business administration, and education. Students are urged to consult Social Work Program advisors in the Department of Sociology, Anthropology and Social Work for information and guidance.

\section*{Guidelines for a Major in Social Work}

Students can begin taking the professional foundation courses required for the major in their sophomore year. Before starting foundation courses, students are advised to take PSYC 100, SOC 200, ECON 200, ANTH 210, BIOL 260 (total 15 credits). SOWK 240, Introduction to Social Work, is a prerequisite for SOWK 340, Social Work Practice I. A total of 38 credits of Social Work is required.

Introduction to Social Work, SOWK 240, 3 credits
Approaches to Social Research, SOWK 310, 4 credits
Social Work Practice I: Working with Individuals, SOWK 340, 3 credits
Social Work Practice II: Groups, Families, and Organizations, SOWK 343, 3 credits
Social Work Practice III: Creating Social Change, SOWK 363, 3 credits
Social Welfare Policy, SOWK 364, 3 credits
Human Behavior in the Social Environment, SOWK 373, 3 credits
Integrative Seminar, SOWK 408, 2 credits
Social Work Practicum and Seminar I, SOWK 412, 4 credits
Social Work Practicum and Seminar II, SOWK 413, 3 credits
Social Work Practicum and Seminar III, SOWK 414, 4 credits
Plus:
Statistics, SOC 314, 4 credits
Strongly recommended for Social Work majors: SOWK 10, 100, PSYC 372.

\section*{Guidelines for a Minor in Social Work}

The minor in Social Work is designed to prepare students for active and informed participation in our society, where social welfare plays a major role. A minimum of 17 credits is required, including SOWK 10, 100, 240, and 364; and 6 credits selected from 340, 343.

\section*{Course Descriptions}

10 Intern in Human Services
60 hours of supervised internship experience and a weekly seminar focus on the insights and perspectives of working with people. Opportunities to apply and assess social service concepts, assist social service professionals, and explore career options in human service settings. One semester, 2 credits.

\section*{100 Issues in the Human Services}

An introduction to current issues in the human services that provides understanding of how the field of human services responds to individual human needs manifested in the context of broad social issues such as poverty, inequality, oppression, cultural diversity, right to life/right to die, structural family changes, gender, societal violence, and physical and mental health. Values, belief systems, and ethical issues inherent in working with needy populations will be critically examined and analyzed. One semester, 3 credits.

\section*{240 Introduction to Social Work}

Presents an overview of 1) the profession of social work and its history; 2) social work values, ethics, and principles; 3) generalist social work practice using the problem-solving model across a variety of settings and with a diversity of clients; and 4) process of empowerment as the challenge in working for
change. Includes self-assessment of aptitude for social work. One semester, 3 credits.

310 Approaches to Social Research
(Same as SOC 310) One semester, 4 credits.
340 Social Work Practice I: Working with Individuals
This course is designed to provide a foundation in social work practice theory. Because generalist social work practitioners need to respond to a wide variety of problem situations, students will learn to apply the problem-solving approach within a systems framework. Emphasis will be on learning micro-level relationship and interviewing skills necessary for working with individuals and families. Social work ethics, values, sensitivity to human diversity, and populations at risk are major dimensions of the course. Prerequisite: SOWK 240. One semester, 3 credits.

\section*{343 Social Work Practice II: Groups and} Families
Use of the generalist practice, problem-solving approach to working with mezzo-level client groups, including task groups and intervention groups. A framework for understanding groups, group dynamics, decision-making approaches, and skills needed to work effectively with groups will be examined. The relationship of
groups to larger systems will be reviewed as it relates to the values and responsibilities of the social work profession. Prerequisite: SOWK 240. One semester, 3 credits.

\section*{363 Social Work Practice III Creating Social} Change
Provides the theoretical and practical knowledge, values, and skills needed to prepare students for entry-level social work practice with communities from a generalist perspective. Examines how the urban community as a system addresses the issue of what it means to have influence and power. Explores how political, economic, social, and religious organizations limit and/or enhance individual functioning and freedom. Prerequisite: SOWK 240. One semester, 3 credits.

\section*{364 Social Welfare Policy}

Examines the nature of social policy and its targets. Explores the American values, concepts, and principles that influence choice of social objectives. Focuses on the process of formulating, adopting, and implementing social welfare policies directed toward diverse populations. Prerequisite: ECON 200. One semester, 3 credits.

373 Human Behavior in the Social Environment This course is designed to develop the student's theoretical base, knowledge and skills in the area of human behavior and the social environment. Multiple theoretical frameworks will be applied to exploring how human development is enhanced or limited by biological, psychological, sociological, and cultural systems. The ecological-systems perspective will be used to understand the behavior of and the range of social systems (families, groups, organizations, institutions, and communities) in which they function. Prerequisites: SOC 200, PSYC 100, ANTH 210, BIOL 260. One semester, 3 credits.

\section*{385* Child Abuse and Domestic Violence} Examines multi-dimensional explanations and laws pertaining to sexual and physical child maltreatment, wife/husband beating, and the battered parent syndrome. Students will explore selected issues related to these psychosocial problems by visiting and having discussions with victims and professionals in various agencies and programs who deal with these problems. January or summer, 4 credits.

\section*{386* The Welfare of Children}

This overview of the field of contemporary child welfare will examine how social services are
provided for children and young people whose parents are unable to fulfill their child-rearing responsibilities. Child welfare policies and programs will be explored through readings, field trips to agencies, and discussions with child welfare professionals. January, 4 credits.

\section*{388* Asians in America}
(Same as SOC 388)One semester or January, 3-4 credits.

\section*{390, 490 Current Topics in Social Work} Variable credits. Permission. May be repeated for credit.

395, 495 Directed Studies in Social Work Credit and time arranged. Permission. May be repeated for credit.

\section*{408 Integrative Seminar}

Students will assess their development in relation to social work education outcomes of the CSWE curriculum policy statement. Writing a paper in the major will be geared to preparation for moving into social work occupational opportunities. Senior standing. Only for social work majors. Permission. One semester, 2 credits.

\section*{412 Social Work Practicum and Seminar I}

Internship in medical, social, correctional, and psychiatric agencies under joint College/agency planning and supervision. Helps students apply and integrate knowledge, values, and skills necessary for beginning professional competence. Two full days ( 16 hours per week) and required seminar, 2 hours per week. Only for social work majors. Permission. Prerequisites: 240. One semester, 4 credits.

\section*{413 Social Work Practicum and Seminar II} Advanced level internships in community agencies (usually a continuation at the same placement agency as SOWK 412). Structured learning opportunities that enable students to compare and evaluate practice experiences, integrate classroom knowledge, and engage in self-assessment of their own professional development. Two full days ( 16 hours per week) and required seminar, 2 hours per week. Only for social work majors. Permission. Prerequisite: 412. January, 3 credits.

414 Social Work Practicum and Seminar III Continuation of SOWK 413. Two full days (16 hours per week) and required seminar, 2 hours per week. Only for social work majors. Permission. Prerequisite: 413 . One Semester, 4 credits.

\section*{Summer Program}

8he Whittier College Summer Program consists of three sessions with the dates specified in the Summer Brochure. Session I is scheduled for four weeks, Session II is scheduled for six weeks and Session III is scheduled for three weeks. Some courses are scheduled according to specific session dates and other courses are offered on dates which overlap into a different session.

During Session I, students may take a maximum of four credits. During Session II, students may take a maximum of six credits. During Session III, students may take a maximum of three credits. The maximum number of credits for which any student may register during the summer is 12 .

Some Liberal Education Requirements may be offered through the Summer Program. The Summer Program is of particular interest to graduate students enrolled in credential programs or the Master of Arts in Education Program. The summer curriculum features an intensive professional preparation sequence for Preliminary Multiple Subject (elementary) and Single Subject (secondary) Teaching Credentials.

A Summer Program brochure, including the class schedule, admission requirements and registration procedure is available early in the spring semester. Offerings vary from year to year.

Summer Program courses are taught by members of Whittier College faculty and selected adjunct faculty.

All courses satisfy requirements for Whittier College academic credit and may be applied toward credential and degree requirements. The Summer Intensive Program has separate admissions requirements. Additional information is available from the Office of the Registrar or from the Department of Education and Child Development.

\section*{Theatre and Communication Arts}

Jack deVries
Brian Alan Reed, Chair

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he Theatre and Communication Arts Department offers courses serving students in the areas of performance, directing, theatre history and dramatic literature, and stage design and technology. The department also offers courses in film history and criticism, video production, and speech communication. Students who may desire to major in Theatre Arts should consult an appropriate faculty member for advice.

The Theatre Arts program at Whittier College is firmly based in the liberal arts tradition. Students majoring within the department follow a program of study designed to stimulate awareness of our cultural traditions and to explore the creative abilities of each individual. This program provides pre-professional training for those who plan to seek a career in the performing arts, to prepare for graduate school, or to pursue careers in other allied fields including teaching. Recent graduates have found that their education in the department has prepared them for careers in personnel, education, sales and advertising, business, law, and publishing, as well as acting, directing, design and technical direction, writing, film, television, and the themed entertainment industry.

\section*{Guidelines for a Major in Theatre Arts}

Department Core Requirements for all majors ( 34 credits):
Theatre Practicum, THEA 50, 4 credits.
Stagecraft, THEA 140, or Introduction to Theatrical Design, THEA 240, 3 credits
Introduction to Theatre, THEA 150, 3 credits
Acting, THEA 210, or Voice and Movement, THEA 220, 3 credits
Shakespeare, THEA 328, 3 credits
Scenic, THEA 340, Lighting, THEA 345, or Costume Design, THEA 347, 3 credits
World Theatre, THEA 372 A, B, and C, 9 credits
Directing I, THEA 410, 3 credits
Seminar in Dramatic Criticism, THEA 480, 3 credits
Additional Requirements:
Theatre Arts—Performance Emphasis (9 credits, for a total of 43 credits): THEA 220, 215, and either 225 or 325.
Theatre Arts—Design/Technology Emphasis ( 6 credits, for a total of 40 credits): Two additional courses beyond the core requirement from THEA 245, 246, 247, 248, 340, 345, 347.

Theatre Arts-General Theatre Emphasis ( 6 credits, for a total of 40 credits): THEA 220, and two courses from 215, 225, 245, 246, 247, 248, 310, 325, 330.

\section*{Guidelines for a Minor in Theatre Arts}

A minor requires 20 credits, including two credits of \(50 ; 210\) or \(215 ; 140\) or 240 ; and six credits in courses numbered above 300 .

\section*{Course Descriptions}

\section*{50 Theatre Practicum}

Acting or crew work on the two major productions staged each semester. May be repeated up to a maximum of 5 credits. One semester, 1 credit.

\section*{60* Theatre for Youth Ensemble}

The Whittier College Theatre for Youth Ensemble (The Magic Beans) will create improvisational and scripted performances for young audiences. These performances will be taken to area schools, hospitals, boys and girls clubs, etc. and be performed at the Shannon Center for invited audiences. May be repeated for credit. One semester, 1 credit.

\section*{100 Theatrical Creativity}

Sources and methods of creative expression through theatrical games, concentration, objects, and sensitivity exercises. One semester, 3 credits.

\section*{101 Basic Oral Communication}

Theory and practice of the fundamental principles of public speaking and reading aloud. One semester, 3 credits.

\section*{140 Stagecraft I}

Materials, tools, and techniques in construction of stage scenery; laboratory work on major productions. One semester, 3 credits.

\section*{150* Introduction to the Theatre}

Introduction to the concepts, history, dramatic literature and practice of theatre arts. The class will focus on the development of the American theatre and the evaluation of theatre in performance, locating theatre within its multicultural/historical/social context and tracing its development to roots in previous periods and movements. Field trips to professional theatrical productions in the Los Angeles area and discussions with professional theatre artists will be emphasized. One semester, 3 credits.

\section*{160* Theatre for Youth}

A seminar/workshop in which students will explore various aspects of creating theatre for young audiences. Performance skills in improvisation and creative dramatics, the use of drama as therapy, adaptation of fairy tales, folklore and other children's literature for plays,
and the integration of drama into classroom curriculum will be emphasized. Enrollment in the class will also require participation in the Whittier College Theatre for Youth Ensemble, The Magic Beans, and possible involvement in a college theatre for youth production. One semester, 3 or 4 credits.

\section*{210 Acting I}

Various techniques of actor preparation and role creation; scene work and participation in laboratory theatre productions. One semester, 3 credits.

\section*{215* Acting II}

Movement, improvisation, and techniques of building a character. Prerequisite: 210 or permission. One semester, 3 credits.

220 Voice and Movement for the Actor Practical laboratory work in vocal production and movement, utilizing developmental techniques of Linklater, Alexander, Feldenkrais, Grotowski, Michael Chekhov, et al., with special emphasis on individual coaching and problemsolving. One semester, 3 credits.

\section*{225* Advanced Voice, Movement, and}

\section*{Characterization}

Advanced laboratory work in voice, movement and characterization for the actor with emphasis on improvisation, neutral and character mask exploration, work with classical texts, familiarity with the international phonetic alphabet (IPA), acquisition of dialect skills. Prerequisite: 220 or permission of instructor. One semester, 3 credits.

\section*{230* Multi-Media Production}

Principles, procedures, and practice of photography, audio recording, and production planning culminating in a student-produced project. One semester, 3 credits.

\section*{240* Intro to Theatrical Design}

An introduction to the design elements of the theatre arts, including scenery, lighting, and costumes for theatre, dance, and film. Includes a laboratory component for major productions. One semester, 3 credits.

245* Drawing and Drafting for the Theatre Covers drawing and drafting techniques for design and technical production in the theatre. An introduction to the use of CADD (computeraided design and drafting) will be included. Includes a laboratory component for major productions. One semester, 3 credits.

246* Scene Painting and Rendering
A course covering the study and practice of scene painting for the theatre, along with the use of watercolor in creating design renderings and painter's elevations. Includes a laboratory component for major productions. One semester, 3 credits.

\section*{247* Costume Construction}

Study and practice in the construction of costumes for theatre, including basic sewing skills and an introduction to pattern drafting and the cutting and draping of costume fabrics. One semester, 3 credits.

\section*{248* Makeup}

Techniques of applying and designing makeup for theatre. One semester, 3 credits.

\section*{280* Narrative Cinema}

A survey of the history, aesthetics, and theory of the narrative film. Lectures and discussions are supplemented by class screenings. One semester, 3 credits.

\section*{285* Documentary Cinema}

A survey of the history, aesthetics, and theory of the documentary film/video tradition. Lectures and discussions are supplemented by class screenings. One semester, 3 credits.

\section*{310* Acting III}

Advanced study in the theory and technique of acting with special emphasis on auditioning techniques and the preparation of a professional repertoire. Seminar and laboratory. Prerequisite: 215 or permission. One semester, 3 credits.

\section*{320* Introduction to Video Production}

Scripting, videography, audio, and editing are among the procedures and principles covered in the students' planning, producing, and evaluating video projects. Prerequisite: 230. One semester, 3 credits.

325* Dramaturgy and Performance Laboratory A laboratory workshop consisting of an in-depth exploration of the life and work of a playwright or a period in dramatic literature. The dramaturgical portion of the course will emphasize the importance to the creative process of a thorough understanding of the historical/cultural context of a particular play or period. The performance aspect of the course will be closely linked to the dramaturgical exploration and will focus on the collaborative nature of the theatrical endeavor. The semester-long intensive research and rehearsal period will culminate in a laboratory production which will be part of the theatre department's mainstage schedule. The course is particularly suited for actors, theatre historians, directors, and designers. May be repeated for credit. One semester, 3 credits.

\section*{328 Shakespeare}
(Same as ENGL 328) One semester, 3 credits.

\section*{330* Playwriting}

General analysis of dramatic structure and of student-written scenes culminates in completion of a one-act play. One semester, 3 credits.

\section*{340* Scenic Design}

Study and practice in scenic design through assigned projects. Attention also given to basic elements of design and to the history of stage design. One semester, 3 credits.

\section*{345* Stage Lighting}

Study of stage lighting technology and lighting design theory and practice; includes the development of several lighting design projects. One semester, 3 credits.

\section*{347* Costume Design}

Designing costumes for the theatre, with consideration given to researching period styles, choosing fabrics, and drawing and painting of costume renderings. One semester, 3 credits.

\section*{372A* World Theatre}

Part one of a three semester survey, integrating a multi-cultural history of world theatre with study of performance traditions and dramatic literature. The class encompasses ritual foundations of theatre through the theatre of the early Renaissance period and emphasizes the importance of historical and literary research in formulating production concepts for period
plays. (Does not have to be taken in sequence.) Prerequisite: 150 or permission. One semester, 3 credits.

\section*{372B* World Theatre}

The second part of a three-semester survey integrating a multi-cultural history of world theatre with study of performance traditions and dramatic literature. The class traces the development of theatre from the Renaissance through the late Nineteenth Century and the beginnings of modern drama, and emphasizes the importance of locating dramatic literature within its cultural/social/historical context. (Does not have to be taken in sequence.) Prerequisite: 150 or permission. One semester, 3 credits.

\section*{372C* World Theatre}

Description: The third part of a three semester survey, the class is a socio-historical study of theatre history, dramatic literature and theory from the beginnings of the modern era to the present with an emphasis on multi-cultural influences and relevance to contemporary performance techniques. (Does not have to be taken in sequence.) Prerequisite: 150 or permission. One semester, 3 credits.

\section*{375* Period Style for the Theatre}

This course combines an historical survey of styles of architecture, decoration, and ornament from around the world, with some practical stage design projects based on the material and concepts presented in the course. One semester, 3 credits.

\section*{377* Costume History}

An historical survey of the styles of dress from ancient Greece to the present, with consideration given to how such styles are translated into costumes for the stage. One semester, 3 credits.

\section*{378* Musical Theatre Workshop}

A workshop exploring the unique combination of skills necessary to work in the musical theatre. Acting, singing and movement/dance techniques will be emphasized. Workshop will culminate in a studio full-scale musical theatre production. One semester, 3 or 4 credits.

\section*{390, 490 Selected Topics in Theatre}

Credit and time arranged. Permission. May be repeated for credit.

\section*{395, 495 Directed Studies}

Credit and time arranged. Permission. May be repeated for credit.

\section*{400* Acting III}

Advanced study in the theory and technique of acting with special emphasis on auditioning techniques and the preparation of a professional repertoire. Seminar and laboratory. Prerequisite: 215 or permission. One semester, 3 credits.

\section*{410 Play Directing I}

Principles, procedures, and practice of stage direction; script selection, analysis, casting, and rehearsal problems; culminates in production of two one-act plays. Prerequisites: 140 or 240 and 210. One semester, 3 credits.

\section*{415* Play Directing II}

Continuation of 410 , emphasizing styles of production. Prerequisite: 410 or equivalent. One semester, 3 credits.

\section*{480* Seminar in Dramatic Criticism}

Changing theories of dramatic criticism regarding the genres of tragedy, comedy, and others. One semester, 3 credits.

\section*{Urban Studies}

Leslie Howard (Sociology)
Richard L. Archer (History)
Frederic A. Bergerson (Political Science)
Rafael Chabrán (Foreign Language and Literature)
Hilmi Ibrahim (Recreation)
A. Warren Hansen (Biology)

Martin Kammerer (Earth and Environmental Science)
Joyce P. Kaufman (Whitter Scholars Program)
Seamus Lagan (Physics)
Danilo Lozano (Music)
Robert Marks (History)
Emelie Olson (Anthropology)
Stephen Overturf (Economics)
Paula Radisich (Art History)
Elizabeth Sage (History)
Cheryl C. Swift (Biology)
Kim Thomas (Economics)
Paula Sheridan (Social Work)
here is a substantial interest in urban studies among both students and faculty on campus, and the W.M. Keck Foundation Image Processing Laboratory provides an important resource for the pursuit of these interests. A student can arrange a preprofessional curriculum in urban studies designed as preparation for graduate work in such fields as urban planning, design, architecture, public administration, or social service delivery. Such a curriculum can be constructed around either the Liberal Education Program or the Whittier Scholars Program. The latter option permits a self-designed interdisciplinary major; both options allow a disciplinary concentration complemented by relevant courses from other disciplines forming the core of the program. A student interested in urban planning might major in sociology, political science, or economics, focusing on the relevant urban and planning courses both within the major and in related fields. Someone more interested in design or architecture might major in art or physics and supplement this work with relevant study in other departments. Such flexibility allows for the diversity of career opportunities growing out of urban studies. The faculty listed above are available to help students design a program suited to particular areas of interest and career objectives.

\section*{Whittier Scholars}

Joyce P. Kaufman (Political Science), Associate Academic Dean and Director of the Whittier Scholars Program
he Whittier Scholars Program is governed by the Whittier Scholars Council
consisting of appointed faculty members from across the College and elected
student representatives.
For a description of the Whittier Scholars Program (WSP), see the "curriculum"
sction of the catalog, or contact the Whittier Scholars Program Office, located in
Wardman Hall.

\section*{Course Descriptions}

101 The Individual, Identity and Community
The foundation course for the Scholars
Program. Designed to enable students to explore issues such as: human beings in a social context; the relationship between the individual and the community; the role of education and the life of the mind; and the ways in which values and affect play a role in asking and understanding enduring questions and analyzing issues. Themes are addressed in terms of different historical periods, disciplines, cultures and identities. Director's permission required. 3 credits.

\section*{201 Designing Your Education}

Educational philosophy, values clarification and goal setting, alternatives for courses of study, and preparation of an Educational Design. Director's permission required. 1 credit.

301 Nature, Theory and Bases of Knowledge Explores various methods of gathering and understanding knowledge from a number of disciplinary perspectives. Develops awareness of what knowledge is and an understanding of the approach most appropriate for completion of the Senior Project. Acceptance into the Program and Director's permission required. 3 credits.

\section*{399 Internship}

Internship is an area directly related to the Educational Design. This is an off-campus experience under joint college/site planning and supervision. May be repeated for credit. Director's permission required. 1-4 credits.

\section*{401 Senior Seminar}

Final course in the sequence. Capstone seminar which enables students in the program to share their ideas and to peer review one another's work as they progress through the creation of a Senior Project. Design Board approval and Director's permission required. 3 credits

\section*{499 Senior Project}

Design Board approval and Director's permission required. Variable credits.

\section*{Women's Studies}

Maurine Behrens (Psychology)
Gustavo Geirola (Spanish)
Marilyn Gottschall (Religion)
Sal Johnston (Sociology)
Laura McEnaney (History)
David Paddy (English)
Paula Radisich (Art History), Coordinator
Anne Sebanc (Child Development)
Michelle Switzer (Philosophy)

UOmen's Studies, distinguished by its interdisciplinary nature, brings together faculty and students who share an interest in studying and producing theory and research about women's experiences. This interdisciplinary approach leads students to a critical perspective and enables them to understand better historical and contemporary relations of power and gender. By employing different methodologies and by considering questions regarding gender within different disciplines, students achieve an understanding of the complexity and the wholeness of human experience. Sex, sexuality, and gender are examined as biological, psychological, historical, and cultural phenomena. Special emphasis is placed on the nature of gender as a social construction varying with respect to time, place, and context. Finally, students are exposed to new scholarship on women and are encouraged to engage critically with feminist theories and practices.

A women's studies minor is useful preparation for professional and postgraduate work in a variety of fields. On a personal level, it enhances the human potential of both women and men by questioning and redefining societal values and encouraging them to work toward greater equality.

\section*{Requirements for a Minor in Women’s Studies}

Required Courses:
Integrative Course, INTD 400, 3 credits and
Feminist Social Theory, SOC 406, 3 credits
2 Introductory Courses:
Women and the Visual Arts, ART 207, 3 credits
The Role of Science in Defining Gender, BIOL 190/INTD 215, 3 credits
Introduction to Lifespan Development, CHDV 105, 3 credits
Philosophy of Love and Sex, PHIL 260, 3 credits
Women and Religion, REL 253, 3 credits
Gender, Ethics and Religion, REL 253, 3 credits
Race, Class and Gender, SOC 202, 3 credits

\section*{Women's Studies}

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2 Upper Division Courses:
Myth Symbol and Meaning, ANTH 307, 3 credits
Male and Female, ANTH 327, 3 credits
Senior Seminar in Child Development, CHDV 497, 3 credits
Women in the Labor Force, ECON 355, 3 credits
Women's Portraits/Portraits de Femmes, FREN 475, 3 credits
Women and Gender in the United States, HIST 309, 3 credits
Women in Modern Europe, HIST 390, 3 credits
Seminar on Human Rights, PLSC 480, 3 credits
Psychology of Women, PSYC 364, 3 credits
Radicals and Reformers: Women, Religion and Social Change, REL 341, 3 credits
Sociology of Gender, SOC 389, 3 credits
The Mexican Muse/La Musa Mexicana, SPAN 190/390, 3 credits
Latin American Women Writers, SPAN 290/490, 3 credits
Cinema, Culture and Literature, SPAN 483, 3 credits
Recommended Courses:
Chaucer, ENGL 324, 3 credits
American Cultural History, HIST 90, 3 credits
United States to 1877, HIST 206, 3 credits
Colonial America, HIST 300, 3 credits
A Nation Divided 1820-1865, HIST 304, 3 credits
Islam, REL 331, 3 credits
}

\section*{Graduate Education}

Uhittier's Graduate Education Programs include both credential and Masters of Arts in Education degree programs that further the institution's tradition of excellence in the preparation of teachers, school administrators, and teacher educators. In-depth study of various pedagogical and administrative issues occurs within the context of Whittier's liberal arts perspective.

The Graduate Program faculty includes outstanding teachers and administrators with advanced academic degrees and professional experience in their specialty areas.

Among the themes that unify graduate study at Whittier College are appreciation of diversity, active construction of knowledge, value of critical thinking, and lifelong learning.

\section*{Overview of Graduate Programs}

Graduate offerings include the following credential programs approved by the Commission on Teacher Credentialing (CTC): Preliminary and Professional Clear Multiple Subject Teaching Credential Programs (elementary education); Preliminary and Professional Clear Single Subject Teaching Credential Programs in several subject areas as described in the Teacher Education section of this catalog (secondary education); and Preliminary and Professional Administrative Services Credential Programs. Whittier offers a Cross-Cultural, Language and Academic Development (CLAD) Certificate Program for Multiple Subject and Single Subject credentials and a CLAD Emphasis Program for the Multiple Subject Credential.

Whittier also offers the Master of Arts in Education Degree, with emphases in a variety of concentrations. Qualified students may work simultaneously on the M.A. degree and a credential.

The M.A. Program features an opportunity for each student to work closely with a faculty member in his/her emphasis area to develop an individualized course of study called the Educational Design. All Educational Designs must include specified courses and an area of concentration.

Graduate students have the opportunity to study at the Broadoaks Children's School, Whittier's nationally known campus demonstration school.

Graduate courses are offered in the evening during the fall and spring semesters, and also during the summer sessions.

\section*{Whittier Law School}

\section*{The School, Traditions and Goals}

Whittier Law School, begun in 1975, and rededicated in 1998 at its present state-of-theart facility in Costa Mesa, reflects the College's continuing commitment to academic excellence and individual attention. The degree of Juris Doctor (J.D.) is conferred upon successful completion of the program. The School offers full-time day, part-time day and part-time evening programs. Students may specialize in and, upon graduation, receive Certificates in Children's Rights and Intellectual Property Law. The Law School also offers an exchange program with the University of Paris, as well as, an LL.M. in U.S. Legal Studies for foreign lawyers. The School is fully approved by the American Bar Association and is a member of the Association of American Law Schools.

The Whittier tradition stresses concern for individual students' intellectual and ethical development. This tradition is reflected in admissions practices stressing diversity, a small student-to-faculty ratio (approximately 20:1), small elective classes, and individual student counseling and placement services. Whittier faculty members recognize that their teaching obligation includes considerable interaction with students. The goal of the Law School is to provide a sound legal education as preparation for careers in law, business, public service, and other fields. Its course of study and instructional policies seek to develop analytical legal reasoning, skill in communications, and a strong foundation in the fundamentals of law. The curriculum emphasizes historical precepts and the changing current of modern law relative to prevailing social needs.

\section*{Law Campus}

The Whittier Law School occupies an attractive fifteen-acre campus in Costa Mesa that provides a relaxed atmosphere for the law student. The multimillion dollar, 130,000 sq. ft . facility houses the library, clinic, tiered and seminar classrooms, courtrooms, offices for student organizations, cafeteria, bookstore, and ample study areas. Multimedia interactive classrooms incorporate the most advanced acoustic principles, and network connections are built into student desks. Costa Mesa, in Coastal Central Orange County is convenient to the state and federal courts and law offices in Los Angeles and Orange County.

\section*{The Program and its Students}

Whittier Law School maintains a program with classes meeting both day and evening, offering full-time and part-time legal education. After three years at Whittier College a student may apply to the Law School. If accepted, the Whittier student would earn a B.A. from the College and a J.D. from the Law School within a six year period. A midyear admission program begins in January in addition to the regular Fall Admission program. The Academic Success Program includes the Summer Performance Admission program which is provided for a selected group wishing to enter the Law School, but whose qualifications do not meet the high standards for regular admission. The Center for Children's Rights trains students to provide legal services to children and the Children's Rights Clinic offers students an opportunity to participate in all aspects of client representation. The Center for Intellectual Property Law offers an I.P. track within the J.D. program as well as a Summer Institute in Intellectual Property.

The school's full-time program is composed primarily of students who have recently obtained their undergraduate degrees and whose interests and aptitudes have led them to seek a career in the legal profession. Students attending the part-time program comprise a variety of age groups, backgrounds, and occupations. In most cases, they are employed on a full-time basis and are seeking to further their positions in their present fields or to make a career change.

Among the current students are physicians, mathematicians, engineers, C.P.A.s, teachers, law enforcement officers, court clerks, legal secretaries, and people representing a multitude of other occupations from a broad spectrum of the community. There is no specifically required academic background for admission to law school; students are admitted from many fields. Whittier Law School has long made special efforts to provide legal educational opportunities for women and members of underrepresented ethnic groups.

\section*{Admission}

It has been the policy of the Law School from its inception to set admission and scholastic standards at a level consistent with academic excellence. The Admissions Committee undertakes an individual analysis of each potential student to determine whether the combination of factors exists which the Committee believes to be essential for the successful completion of the study of law. These factors are many and varied. Considerable emphasis is placed on the applicant's undergraduate record and performance on the Law School Admission Test (LSAT). However, the Committee also assesses such factors as intellectual maturity, capacity for self-discipline, and other intangible attributes essential to success in a law program.

For details regarding admission policies and procedures, scholarships and financial aid, tuition and fees, academic calendar and schedule, physical and library resources, student organizations, honors and wards, academic standards and the course of instruction, please contact the Director of Admission at Whittier Law School 3333 Harbor Blvd., Costa Mesa, CA 92626.

\section*{Expenses}

2uition, fees, and room and board charges are set in the spring for the following academic year. A Schedule of Charges may be obtained directly from the Business Office or the Office of Student Financing.

\section*{Deferred Payment}

For students and their parents who desire to budget for the tuition, fees, room, and board charges on an installment basis, the College has engaged the services of independent firms to handle monthly billing and collection. Further information may be obtained from the Office of Student Financing.

\section*{Refunds}

The registration deposit of \(\$ 300\) (or \(\$ 2,000\) for new international students) is not refundable.

All housing refunds, including the \(\$ 100\) room reservation deposit are made under the conditions stated in the Residential Living License Agreement. The deposit is not refundable if the application for housing is canceled prior to occupancy.

Meal plan fees are refundable according to a pro-rated schedule. No refund or credit is made for missed meals. Meal tickets are not transferable, and a fine is imposed for unauthorized use. A fee is charged for the replacement or exchange of a meal ticket or identification card.

January Interim meal adjustments will be made by the Business Office, 30 days prior to the session, only for students with approved absences. There is no refund for room or tuition if absent for the January Interim.

Tuition and fees refunds for withdrawal from the College are made according to a pro-rated schedule based on federal refund guidelines for new and continuing students.

All withdrawal notices must be filed with the Dean of Students. The date on such notice determines the refund period. All refunds must be claimed in the Business Office within 30 days of the date of the withdrawal notice.

Upon withdrawal, the Office of Student Financing will apply federal and state regulations to determine the appropriate amounts that must be refunded to the aid programs and/or the student for any student receiving federal, state or institutional assistance.

Detailed information regarding the calculation of refunds may be obtained by contacting the Dean of Students or the Office of Student Financing.

\section*{College Policy}

The College reserves the right to credit wages earned by students employed by the College or refundable deposits against unpaid accounts. Student will be retained in classes, grades or transcripts will be issued, and degrees conferred only after all financial obligations to the College have been satisfied.

\section*{Administration 2000-2001}

Alex, Bernard
Director, Campus Safety
B.A., University of Southern California

Brundage, Caye
Director of Public Relations
B.A., Occidental College

Carey, Paul
Interim Vice President for Advancement
B.A., M.B.A., Chapman University

Carlyle, Irene
Associate Director of the Whittier Scholars Program

Chabran, Rafael
Associate Dean for Academic Advisement and First Year Experience
B.A., University of California, Berkeley
M.A., San Jose State University

Ph.D., University of California, San Diego
Cheatham, Richard
Director, Media Center
B.A., Whittier College
M.Rel., Claremont School of Theology
M.S., Ph.D., University of Southern California

\section*{Feng, Jeffrey Y.}

Associate Director of Computing and
Telecommunication Services
B.A., Beijing Second Foreign Language Institute
M.A., State University of New York, Albany

Greenup, Troy
Director of Computing and
Telecommunication Services
B.A., M.B.A., Whittier College

Hau, Hoang
Executive Director of Finance and Business
Services
B.A., Saigon University
B.S., California State University, Fresno M.B.A., California State University, Los Angeles

Jacobs, David
Director of Athletics
B.S., M.S., Springfield College, Massachusetts

Kar, Urmi
Dean of Enrollment
B.A., Wellesley College
M.A., California State University, Fullerton

Kaufman, Joyce
Associate Academic Dean and Director of the Whittier Scholars Program
B.A., M.A., New York University

Ph.D., University of Maryland
Legoza, Jan
Vice President for Finance and
Administration
B.A., State University of New York, Plattsburg
M.P.A., State University of New York, Albany

\section*{Leidy, Colleen}

Director of Student Health Services
A.A., Rio Hondo
R.N., Rio Hondo

Leonard, David
Dean of Students
B.A., State University of New York, Cortland
M.S. Syracuse University

\section*{Locker, Douglas}

Director of Athletic Recruitment and Retention
B.A., Whittier College

\section*{McKernan, George}

Director of Conferences
B.S., East Stroudsburg University
M.S., Shippensburg University

Merideth, Janette
Executive Director of Human Resources
B.A., M.A., Webster University

Miller, Marcia
Director of Major Gifts
B.A., National Universiry

Muller, David J.
Vice President for Academic Affairs
Dean of Faculty
B.M.E., Temple University
M.M., Cleveland Institute of Music

Nelson, Christine E.
Director of Alumni Relations
B.A., Whittier College

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College Librarian
B.A., Whittier College
M.S.L.S., Ph.D., University of Southern

California

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Director, Center of Mexican American Affairs
B.A., M.A., Whittier College

Palmer, David
Production Coordinator/Theatre Manager
B.A., M.A., M.F.A., California State

University, Long Beach
Parnes, Jane
Director of Student Counseling Services
B.A., Brandeis University

Ph.D., Columbia University
Pearson, Lynn
Director of Career Services
B.A., M.S., California State University, Long Beach

Price, Joseph
Executive Assistant to the President
B.A., Georgetown College
M.Div., The Southern Baptish Theological Seminary
A.M., The University of Chicago

Ph.D., The University of Chicago

\section*{Prysock, Delaphine}

Associate Dean of Students
Director of Residential Life
Shepherd, Jamie
Director of Learning Support
B.A., University of Wisconsin, Stevens

Point
M.A., Azusa Pacific University

Smith, Raymond F.
Associate Academic Dean for Liberal

\section*{Education}
B.A., Pomona College
M.S., California State University, Los Angeles
Ph.D., university of California, Irvine
Van Ellis, Wayne W.
Registrar
B.A., Concordia University, Illinois

Wagner, Judith
Director of Broadoaks Children's School
B.S., Longwood College
M.Ed., University of Toledo

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A.M., University of Illinois

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Associate Academic Dean and Director, Whittier Scholars Program, 1992-95
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B.A., Mount St. Mary's College
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D.M.A., University of Southern California

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B.S., University of Puget Sound
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M.A., East China Normal University,

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B.P.E., Cairo Institute of Physical Education
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B.A., California State University, Stanislaus
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B.A., Boston College
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LeVelle, Teresa
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B.M. - Southwestern College, Kansas,

Aspen School of Music
M.M. - Bowling Green State University
D.M. - Indiana University

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Faculty, 1986-92
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B.S., Waynesburg College
M.S., West Virginia University

Ph.D., The Ohio State University
Morris, Sean
Assistant Professor of English Language and Literature, 2000
Ph.D., State University of New York, Stony Brook
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Muller, David J.
Vice President for Academic Affairs and Dean of Faculty, 1999
Interim Vice President for Academic Affairs
and Dean of Faculty, 1998
Professor of Music, 1983
Associate Academic Dean, 1995
B.M.E., Temple University
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B.A., M.A., San Diego State University

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\section*{O'Brien, Philip M.}

College Librarian and Professor, 1962-66, 1973
B.A., Whittier College
M.S.L.S., Ph.D., University of Southern California

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B.A., Georgetown College
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\section*{Index}
ACADEMIC
Achievement ..... 21-22
Advising ..... 19
Calendar ..... 4-5
Difficulty ..... 38
Divisions ..... 48
Honesty ..... 25
Honors ..... 22
Policies ..... 2-39
Procedures ..... 39-45
Records ..... 32
Review ..... 39
ACCREDITATION .....  2
ACTIVITIES, STUDENT ..... 23
ADMINISTRATION ..... 196-197
ADMISSION ..... 8-11
Application Procedure .....  8
Early-Decision Plans .....  8
Freshman Admission .....  8
International .....  9
Non-Degree ..... 10
Readmission ..... 34
Transfer Admission .....  9
ANTHROPOLOGY ..... 177-180
ART \& ART HISTORY ..... 50-54
ASIAN STUDIES ..... 55-56
ATTENDANCE POLICIES .....  40
AUDITING ..... 32
BIOLOGY ..... 57-60
BROADOAKS SCHOOL ..... 46
BUILDINGS AND FACILITIES ..... 210
BUSINESS ADMINISTRATION ..... 61-64
CALENDAR, ACADEMIC ..... 4-5
CAMPUS FACILITIES ..... 210
CAMPUS INN ..... 210
CAMPUS, MAP OF ..... 210
CAREER SERVICES ..... 24
CENTER OF MEXICAN AMERICAN AFFAIRS 47CHANGE OF MAJOR36
CHEMISTRY ..... 65-67
CHILD DEVELOPMENT ..... 88-89
CHINESE ..... 129-130
CLASS STANDING ..... 33
COLLEGE LIFE ..... 19-23
COLLEGE ORGANIZATIONS ..... 21-22
COLLEGE WRITING PROGRAM ..... 68-71
COMMENCEMENT .....  33
COMPARATIVE CULTURES ..... \(.72-74\)
COMPUTING SERVICES45
Computer Center ..... 45
Departmental. ..... 46
GTE Language Resource Center ..... 47
W.M. Keck Lab ..... 46
Math Lab ..... 46
Writing Center ..... 45
COUNSELING SERVICES ..... 24
CREDIT BY EXAMINATION ..... 33
CREDIT/NO CREDIT GRADING POLICY ..... 42
CURRICULUM ..... 29-44
DEAN'S LIST ..... 22
DEGREES ..... 29
DIRECTED STUDY ..... 41
DIRECTORY, ADMINISTRATIVE ..... 196-197
DIRECTORY, FACULTY ..... 201-206
DROPPING COURSES ..... 44
EARTH AND ENVIRONMENTAL SCIENCE ..... 75-76
ECONOMICS ..... 77-79
EDUCATION ..... 80-89
EMPLOYMENT, STUDENT ..... 12
ENDOWED COLLEGE SCHOLARSHIPS ..... 14-17
ENDOWED PROFESSORSHIPS ..... 20-21
ENGINEERING ..... 90-92
ENGLISH LANGUAGE AND LITERATURE ..... 93-99
ENVIRONMENTAL SCIENCE ..... 100-103
EXPENSES ..... 195
FACULTY MASTERS PROGRAM .....  19
FACULTY, WHITTIER COLLEGE ..... 202
FAIRCHILD AERIAL PHOTOGRAPHY
COLLECTION ..... 46
FEES AND EXPENSES ..... 195
FINAL EXAM POLICY ..... 41
FINANCIAL AID ..... 11-17
Financing Plans ..... 13
Need-Based Aid ..... 12
Scholarships .....  .11
FOREIGN STUDY PROGRAMS ..... 104-105
FRENCH ..... 130-133
FRESHMAN WRITING PROGRAM ..... 31
GRADE APPEAL PROCESS ..... 40
GRADES AND GRADING ..... 41-43
GRADES, INCOMPLETE .....  43
GRADUATE PROGRAMS ..... 192
GRADUATION REQUIREMENTS ..... 36
HEALTH SERVICES ..... 24
HISTORY ..... 106-111
HONORS AT COMMENCEMENT ..... 22
HONORS LISTS ..... 22
HOUSING ..... 23
INCOMPLETE GRADES ..... 43
INTERDISCIPLINARY COURSES ..... 112-113
INTERNATIONAL PROGRAMS ..... 104-105
INTERNATIONAL STUDENTS .....  9
INTERNATIONAL STUDIES ..... 114-115
JANUARY INTERIM ..... 4, 195
JAPANESE ..... 133
KECK FOUNDATION LABORATORY ..... 46
KINESTHETIC PERFORMANCE ..... 150
LABORATORY FEES ..... 43
LATIN AMERICAN STUDIES PROGRAM 116-117
LAUTRUP-BALL CINEMA ..... 47
LAW SCHOOL ..... 193-194
LIBERAL EDUCATION
Program ....................................29-30, 118-121
Requirements ...........................................35-36
LIBRARY .....  45
MAJOR REQUIREMENTS ..... 36
MAP OF CAMPUS ..... 210
MASTER'S DEGREES ..... 10-11
MATH LAB ..... 46
MATHEMATICS ..... 122-125
MATHEMATICS-BUSINESS ..... 126
MEDIA CENTER ..... 46
MINOR REQUIREMENTS ..... 36
MISSION STATEMENT ..... 7
MODERN LANGUAGES AND
LITERATURES ..... 127-136
MUSIC ..... 137-142
NATIONAL HONOR SOCIETIES ..... 21
NONDISCRIMINATION .....  2
NUMBERING SYSTEM FOR COURSES ..... 49
ORIENTATION .....  4
OVERSEAS STUDY ..... 104-105
PERFORMING ARTS CENTER .....  46
PHILOSOPHY ..... 143-146
PHYSICAL EDUCATION AND RECREATION ..... 147-150
PHYSICS ..... 151-155
POLITICAL SCIENCE ..... 156-160
PREPROFESSIONAL PROGRAMS ..... 161
Baccalaureate/Jurist Doctorate
Program 3/3 ..... 164
Continuing Education ..... 164
Pre-Dental ..... 161
Pre-Engineering (3-2) ..... 161
Pre-Law ..... 162
Pre-Medicine ..... 162
Pre-Therapy ..... 162
Social Work ..... 163
Teacher Education ..... 163
PROBATION ..... 38
PSYCHOLOGY ..... 165-168```

