## Accreditation

Whittier College is regionally accredited by the Western Association of Schools and Colleges. You may contact WASC at:

985 Atlantic Avenue, SUITE 100<br>Alameda, CA 94501<br>(510) 748-9001

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....................................................................................5-6
INTRODUCING WHITTIER COLLEGE 7-21

President's Message ...................................................................................... 7
Values.............................................................................................................. 8
Traditions..................................................................................................... 8
Vision............................................................................................................... 9
Mission........................................................................................................ 9
Undergraduate Admission........................................................................... 10
Credential and Graduate Admission........................................................... 12
Student Financing........................................................................................ 12
COLLEGE LIFE ............................................................................................... 22-28
The Faculty ................................................................................................ 22
The Academic Advising System .................................................................. 22
Endowed Professorships ............................................................................. 23
Recognition of Academic Achievement........................................................ 25
Student Activities .......................................................................................... 28
Student Rights \& Responsibilities ................................................................ 28
ACADEMIC POLICIES AND PROCEDURES....................................................29-46
THE CURRICULUM..........................................................................................47-55
Degrees ...................................................................................................... 47
The Liberal Education Program.................................................................... 47
Whittier Scholars Program ......................................................................... 48
Writing Program ..................................................................................... 50
Requirements for Graduation ..................................................................... 50
Requirements for the Major......................................................................... 51
Requirements for the Minor .................................................................... 51
Requirements for Transfer Students ............................................................ 51
Whittier Scholars Program Requirements ................................................... 52
Academic Support Programs and Services ................................................... 52

## TABIE OF CONTENTS

COURSES OF STUDY ..... 56
Academic Divisions ..... 56
Course Numbering ..... 56
SPECIAL PROGRAMS
Foreign Studies Programs (Study Abroad) ..... 204
Professional and Pre-Professional Programs ..... 206
Summer Program ..... 210
Urban Studies ..... 211
GRADUATE EDUCATION ..... 212-220
Application to Credential and Master of Arts ..... 213
Requirements for the Master of Arts in Education ..... 214
Requirement for Graduation ..... 214
WHITTIER LAW SCHOOL ..... 221
EXPENSES ..... 223
COLLEGE ADMINISTRATION ..... 227
BOARD OF TRUSTEES ..... 229
FACULTY ..... 232
INDEX ..... 239

FALL SEMESTER 2005
OrientationSeptember 3-7
Fall SemesterSeptember 8-December 16
Fall Semester classes begin. September 8
Last Day to Add a Course ..... September 15
Last Day to Drop a Course w/o Record September 29
Last Day to File CR/NC Grade Option. ..... October 6
Mid-Semester Break ..... October 14
Last Day to Withdraw from a Course ..... October 20
Pre-registration for January \& Spring 2006 ..... TBA
Thanksgiving Break November 24-25
Fall Semester classes end December 9
Reading Day ..... December 12
Finals ..... December 13-16
Final Grades Due in Registrar's Office December 20
JANUARY INTERIM 2006
January Interim January 9-February 3
Last Day to Add a Course. ..... January 13
Martin Luther King Holiday January 16
Last Day to Drop a Course w/o Record ..... January 20
Last Day to File CR/NC Grade Option. January 20
Last Day to Withdraw from a Course January 27
SPRING SEMESTER 2006
Spring Semester ..... February 9-May 22
Spring Semester classes begin February 9
Last Day to Add a Course. ..... February 16
Last Day to Drop a Course ..... March 2
Last Day to File CR/NC Grade Option. ..... March 9
Last Day to Withdraw from a Course ..... March 23
Pre-registration for Summer \& Fall 2006 ..... TBA
Spring Break ..... April 3-7
Spring Semester classes end ..... May 16
Reading Day ..... May 17
Finals ..... May 18-20, 22
Senior Grades Due in Registrar's Office ..... May 24
Spring Grades Due in Registrar's Office ..... May 30
COMMENCEMENT 2006 ..... May 26
SUMMER TERM 2006
Summer Term May 30-August 25
Summer Session I (4 weeks) ..... May 30-June 23
Summer Session II (6 weeks) June 26-August 4Summer Session III (3 weeks)August 7-August 25

## ACADEMIC CALENDAR 2006-2007 (TENTATIVE)

## FALL SEMESTER 2006

Orientation
September 2-6
Fall Semester September 7-December 15
Fall Semester classes begin.............................................................................................................. 7
Last Day to Add a Course.................................................................................September 14
Last Day to Drop a Course w/o Record ..............................................................September 28
Last Day to File CR/NC Grade Option.....................................................................October 5
Mid-Semester Break.................................................................................................... October 13
Last Day to Withdraw from a Course ...................................................................October 18
Thanksgiving Break............................................................................................November 23-24
Fall Semester classes end............................................................................................ December 8
Reading Day ............................................................................................................. December 11
Finals ................................................................................................................ . December 12-15
Fall Grades Due in the Registrar's Office ........................................................... December 19

JANUARY INTERIM 2007

Last Day to Add a Course.....................................................................................January 12

Last Day to Drop a Course w/o Record .................................................................. January 19
Last Day to File CR/NC Grade Option Record ..................................................... January 19
Last Day to Withdraw from a Course Record .........................................................January 26

## SPRING SEMESTER 2007

Spring Semester..............................................................................................February 8-May 21
Spring Semester classes begin ......................................................................................February 8

Last Day to Drop a Course w/o Record............................................................................ March 1
Last Day to File CR/NC Grade Option ............................................................................. March 8
Last Day to Withdraw from a Course .................................................................... March 22
Spring Break ................................................................................................................. April 2-6
Spring Semester classes end ............................................................................................. May 15
Reading Day ................................................................................................................ May 16
Finals................................................................................................................... May 17-19, 21
Senior Grades Due in Registrar's Office ..................................................................... May 22
Spring Grades Due in Registrar's Office..................................................................... May 29
COMMENCEMENT 2007 ................................................................................................. May 25

SUMMER TERM 2007
Summer Term.................................................................................................. May 29-August 24
Summer Session I (4 weeks) ............................................................................... May 29-June 22

Summer Session III (3 weeks)........................................................................August 6-August 24

## PRESIDENT'S MESSAGE

Like many of you, I am a newcomer to Whittier and I too am learning about the College. At every turn I experience delight in my discoveries. Whittier's values, rooted in a distinguished and colorful history, echo throughout our campus culture and core curriculum, characterized by the primary tenets of our liberal arts education: community, communication, cultural perspectives, and connections. At Whittier, regardless of major, you will gain a breadth and depth of knowledge that will prepare you for a lifetime of change and opportunity. You will build critical thinking and writing skills and connect theory to practical applications. And, with the help of our distinguished faculty and dedicated staff, you will grow in self-reflection, gain awareness of your unique talents, and build confidence in your ability to understand and negotiate the broader world.
You will do all of these things on a campus named after a poet, one known as much for his fiery abolitionist spirit and concern for social justice as for his poetry and ballads. You will take pride in being called a "Poet" yourself and in knowing that a long line of Poets preceded you, found a niche or two while on campus, graduated, and accomplished much in life.

As you contemplate how you will spend your years at Whittier and what you would like to accomplish in your life, consider this: Whittier has educated writers and artists, scientists and bankers, lawyers and teachers, and even a president of the United States. Within this catalog and on our welcoming campus you will find the way to open doors to any opportunity you seek. Explore the rich offerings, sample Whittier's breadth, and dream.

SHARON D. HERZBERGER, PH.D., President

## VALUES

Named for renowned $19^{\text {th }}$ century poet John Greenleaf Whittier, our College is located in the hills overlooking metropolitan Los Angeles and coastal Southern California. It was founded in the City of Whittier by members of the Religious Society of Friends (Quakers) in 1887, and chartered by the State of California in 1901. Non-sectarian since the 1940's, the social values of the College's Quaker heritage - freedom of conscience, integrity, justice, and internationalism - strongly influence its ethos. The campus has a friendly tone, and there is respect for the individual and for his or her personal growth within the context of a community. Whittier has a long-standing commitment to a diverse student body and faculty, and the acceptance of human difference that it thereby seeks to engender. Humanistic and pre-professional education are integrated, reflecting the College's desire that its members be socially responsible citizens. Also reflective of the Quaker heritage is a commitment within the college community to strive to settle issues amicably and make major decisions by achieving consensus rather than by simple majority vote.

## TRADITIONS

A college with a long and distinguished past has traditions that connect each new student with important aspects of academic community. These traditions reflect both solemn rituals and the lighter side of college life. Some of Whittier's traditions can be dated to the College's founding a century ago, 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 during the first week 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 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 Helping Hands Day. Celebrations of the diverse cultures represented by 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.

## VISION

Whittier College is dedicated to student learning and transformation. As a community, the College expects and fosters engagement and excellence through the rigorous tenets of the liberal arts, with a strong interdisciplinary emphasis, drawing upon our location in an exceptionally diverse multicultural metropolis. A Whittier education weaves together theory and practice to inspire lifelong learning, responsible citizenship, personal development and professional success.

## 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 pre-professional 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 context of a diverse, friendly, and long caring 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 AND STUDENT FINANCING

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) with the ACT Writing Test, 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 nonrefundable 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. Nondegree 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. (See Graduate Education, page 212)

## 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 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 year 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.
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 in coordination with the Office of Student Financing, through outside lending institutions or agencies in amounts ranging from $\$ 500$ per year to the cost of full expenses at Whittier College. 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
Dr. John A. Arcadi Endowed Scholarship
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
John H. Crow Endowment
James and Ida Darling Endowment
John F. \& Katherine N. Dean Education Endowment
Grace Elizabeth Dickerson Endowment
Floyd E. and F. Earl Durham Biology Endowment
Mr. \& Mrs. Thomas McGregor Erwin Endowment
Richard Ettinger Endowment
Herbert \& Elizabeth Francis Evans Endowment
Elizabeth Delia Felt \& Jessie Felt Savage Endowment
William \& Christine R. Ferguson Memorial Endowment
Roberta J. Forsberg Humanities Endowment
Jeffrey Thomas Foster Memorial Endowment
Judith A. Francis Endowment
Friends of Music Endowment
Robert L. Gifford Eagle Scout Endowment
Bernard and Esther Goerg Endowment
Stanley and Marjorie Gregory Endowment
Barbara Ondrasik Groce Endowment
Donald and Shirley Hall Endowment
Homer and Cora Halvorson Memorial Endowment
Edna M. Hampton Memorial Endowment
Arthur J. Hanson Endowment
Clair R. Hare Endowment

Ruth Haroldson Violin Endowment
William Randolph Hearst Foundation Endowment
Dorothy C. Heddens Memorial Endowment
Dee Louise Hochstetler Memorial Endowment
Howard L. and Alice B. Hockett Endowment
Lawrence B. \& Sylvia A. Hoefer Endowment
William H. Hornaday Endowment
Bailey Howard Endowment
Wendell Milo Hunt Memorial Endowment
James Irvine Foundation Endowment
Lois James Endowed Scholarship
James W. Jones Endowment
Laura Jones Endowment
Lynn R. and Katherine Balden Juday Endowment
Donna Lee Kendall Endowment
William H. and Irene Savage King Endowment
Paul D. Kirk Memorial Endowment
Paul A. and Frances K. Lewis Endowment
Jay R. and Elizabeth T. Livingston Endowment
Margaretha Lohmann Piano Endowment
Margaretha Lohmann Talent Endowment
James R. Long and John M. Gates Endowment
Albert Madden Endowment
Markham Endowment
Charles K. Marlatt Music Endowment
George H. Mayr/Martin Ortiz Endowment
C. W. McMurtry Memorial Endowment

Trula and Laurel Meyer Endowment
Hilda Mary Millbank-Gobar Endowment
Milhous-Marshburn Endowment
Mary McGraw Miller Music Endowment
John and Elsie Murfett Endowment
Delphi Murphy Memorial Endowment
Wallace "Chief" Newman Endowment
Dr. W. Roy and Alice Newsom Endowment
Dr. W. Roy Newsom Endowed Scholarship
John Hill Nichols Endowment
Martin Ortiz Endowment

Lee \& Erika Owens Endowment
Bruce Patton Memorial Endowment
Dr. Gerald Patton Memorial Endowment
Shirley Parcher Endowment
William Penn Endowment
Perry Memorial Endowment
Richard \& Sissel Pomboy Endowment
Margaret Pressey Endowment
Quaker City Federal Savings and Loan Endowment
Audrey Richardson Memorial Violin Endowment
Henry C. Rosene Endowment
Paul K. and Nina Schroeder Memorial Endowment
Marie Quinzel Sewell Endowment
Margaret Merrill Shannon Endowment
Vincent Sinatra Memorial Endowment
Delphine P. Smith Endowment
Elden and Barbara Smith Endowment
Nora \& Woody Smith Endowment
Walter H. and Helen J. Spicer Endowment
John Stauffer Science Fellows Endowment
John Stauffer Trust Science Endowment
Alfred J. Stevens Memorial Endowment
Martin A. and Mildred L. Stewart Endowment
Bobbie Stoll Endowed Scholarship
Emma Strain Endowment
Roy O. Lisle M. Strain Endowment
Amos and Matilda Hadley Stuart Endowment
Charles E. Sydnor-William V. Marshburn Endowment
Lorraine Thompson Endowment
Raymond C. Thompson Endowment
Helen Ulitin Endowment
Frances E. Van Riper Endowment
May Vertrees Endowment
George E. and Maye R. Wanberg Endowment
Bonnie Bell Wardman Endowment
David E. Wicker Endowment
D. L. and M. A. Williams Endowment

Ed J. \& Ruth Wudell Endowment
Mary E. Wyatt Memorial Endowment
YMCA Daniel Luther Endowment

## Annual Scholarships

Ahmanson Foundation Scholarship
Alianza de los Amigos Scholarship
Avery Dennison Careers in Education Scholarship
Bank of America Scholar
Chevron Merit Award
Christian Leadership Merit Scholarship
Coca Cola First Generation Scholarship
Nola Lee Cole Trust
James S. Copley Foundation Scholarship
Beckman Coulter Science Scholarship
Farmers Insurance Group Scholarship
Si and Bob Fluor Scholarship Program
Forest Lawn Scholarship
Friends of Whittier Scholarship
Gillette Company/Stationery Products Group Scholarship
GTE California Independent Colleges Scholarship
John Randolph and Dora Haynes Foundation Scholarship
Independent Colleges of Southern California Scholarship
Litton Industries Scholarship
Los Angeles Philanthropic Foundation Scholarship
George H. Mayr Foundation Scholarship
Mebane Scholar in Education
B.C. McCabe Foundation Scholarhsip
Milken Family Scholar
Nordstrom Scholarship
Norma L. Murdy Scholarshi
Norris Foundation Scholar
Richard M. Nixon Scholarship (Whittier Republican Women)
Ralph M. Parsons Foundation Scholarship
Smith Trust Fund
TELACU Scholarship
Gary Towell Scholarship

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.

## Veteran's Benefits

Whittier College is approved to train veterans under Title 38, Chapter 36, U.S. Code Sections 3671(a) and 3672(a). Eligible individuals must submit copies of their honorable discharge, VA eligibility and transcripts of all previous educational experiences for review. See the VA Coordinator in the Registrar's Office for further information.

Olyhittier College students join with faculty and staff to form a community of learners. The purpose of this section is to describe residential living, co-curricular 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

Academic advising is an essential part of the educational experience at Whittier, since we believe that advising is closely connected to teaching. From the moment new students step on campus, faculty advisors are ready to assist in charting their curricular path.
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 assume active roles in educational planning and make satisfactory progress in their academic careers. In keeping with the values of the shared learning experience at Whittier college, 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 most of 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.

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


## 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.

## Career Services

Career Services assists students in choosing, planning, and implementing their career-related goals. The primary areas of focus include career planning, career preparation, and job search assistance. Career planning services include individual counseling, self-assessment 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, job search strategies; and an on-campus interview program.
The Career Services Office also maintains directories and information on graduate school programs. The Career Services' web page www.whittier.edu/career contains helpful information and links for career exploration, internships, summer jobs, fulltime positions, graduate school, conducting a job search, and much more.

## Center for Academic Success (CAS)

CAS exists to support all students in achieving academic success: to help underprepared students prepare, to help prepared students advance, and to help advanced students excel. CAS provides individual academic counseling, tutoring, supplemental instruction, a computer learning lab, and instructional workshops. Through individual academic counseling, students receive personalized assistance to assess learning styles and develop study skills. Tutoring and supplemental instruction are available, free of charge, for most classes through student leaders who are committed to helping their peers. The computer learning lab is equipped with internet and a comprehensive software program designed to diagnose and improve basic skills in reading, writing, language, and math. Furthermore, workshops are given throughout the year on topics such as time management, stress, motivation, and more. Students must access these services on their own personal initiative so as to reflect their desire for help and motivation for growth.

## 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 and programs on many aspects of campus life. There is also a small library of books, tapes, and articles that can be borrowed. Staff members are prepared to provide referrals to students who need resources not offered by the counseling service.

## The Cultural Center

The Cultural Center, located in Hanover House, seeks to increase cultural interaction and dialogue on campus. The Center provides support to all minority students by creating bridges to academic and student support services that help students develop career and educational goals. The staff of the Cultural Center serve as advocates for students who need assistance in adjusting to college life. In addition, the Cultural Center collaborates with faculty to develop resources that expand the understanding of tolerance and cultural appreciation in the curriculum.
The Cultural Center is proud to offer a variety of programs throughout the year, including those focused on peer mentorship and leadership development. All Cultural Center programs educate, celebrate and honor the cultural richness on campus. Students are invited to stop by the Cultural Center to use the computers and resources that are available at no charge.

## Disability Services

Whittier College's policy and practice is to comply with the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and state and local requirements regarding students and applicants with disabilities. Under these laws, no otherwise qualified individuals with a disability shall be denied access to or participation in services, programs, or activities of the College.
It is the policy of the College that otherwise qualified students who have disabilities shall be given reasonable accommodation, including academic adjustment and auxiliary aids, where appropriate, necessary to ensure access to the College's overall educational program. Individual students shall receive reasonable and necessary accommodation, including adjustments and aids, based on specific information and assessment data provided by a qualified professional.
The full text of the Disabilities Policy is available on the Whittier College website or in Disability Services.

## Health Services

The Health Center provides treatment for common illnesses and minor injuries, immunizations, and women's health exams. The center also provides 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. - 4:00 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 Intercommunity 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.

## Residential Life

Most Whittier College students live in one of eight campus residence halls. Residence halls accommodate from 20-210 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.
Whittier College is committed to providing a co-curricular environment which enhances and enriches the academic program and which provides students with opportunities for personal and social growth, self-discovery, and an appreciation of one's responsibilities to self and others. To those ends, Whittier College sees residential living as an integral part of the student's education. Residential living fosters a sense of community, facilitates the integration of the individual into campus activities and organizations, exposes students in a very direct and personal way to a pluralist community, encourages an atmosphere of free and wide-ranging expression of ideas, and develops in each person capacities for self-direction and deep concern for others.

For these reasons, all Whittier College students are required to live on campus through their junior year unless they reside with their parents or legal guardians within a twenty-five mile radius of the College, are twenty-two years of age or older, or are married. It is the goal of Residential Life to expose as many students as possible to the benefits of living and learning at Whittier College. Residential students are additionally required to subscribe to one of the meal plans offered through the Campus Inn.
In addition to the variety of social and educational programs offered by the Residential Life staff, each residence hall is also affiliated with a Faculty Master House. This out-of-the-classroom living and learning opportunity creates a learning environment unmatched on the West Coast. The Faculty Master House tradition at Whittier College is modeled after those established at Oxford and Cambridge 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 cocurricular 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, our on-campus nightclub and performance venue. Comprehensive information about opportunities for leadership and involvement at Whittier College through societies, publications, broadcasting, clubs and organizations is available in the Student Handbook, on the College website and through the Office of Student Activities in Hastings House.

## Students 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. While the College believes in the ability of all Whittier College students to uphold the highest standards of behavior that is consistent with membership in an academic community, it does have jurisdiction over student conduct that is considered harmful or unacceptable.
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 POLICIES \& PROCEDURES

## 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 on Academic Honesty

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."

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 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 halfhearted. 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 of Faculty and the Dean of Students are available to provide guidance concerning appropriate sanctions.

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 ourse 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 Associate Dean of Faculty will hear appeals of suspension and expulsion sanctions. No further opportunities for appeal are available.

## Academic Petitions Policy and Process

The Petitions Committee, composed of faculty and the Registrar, 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, the Registrar, or the Associate Dean of Faculty.
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.
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).
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 reevaluate 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.

## 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, 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.

## 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 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.
2. Students on Partial Probation are not restricted from participating in any activities except that they may not join a society.

## D. Full Probation

1. 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 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 of Faculty.
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:
3. The above policies are designed primarily for full-time students.
4. In considering suspensions, some consideration may be given to the total number of units earned toward graduation.
5. Students may appeal Committee decisions to the Associate Dean of Faculty. 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.
6. Students finishing Incompletes successfully may have the severity of the sanction reduced.
7. Incompletes, W's, CR's, and Evaluations will not be used in calculating grade point averages.

## 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 (Also see the Withdrawal Policy).

## 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.

## Class Standing

The total number of units earned, including those accepted from other colleges or universities, determines classification of undergraduate students.
Classification is established as follows:

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

## 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. A student may not receive credit for courses taken at a community college after completing 70 units of college work.

## 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.

## 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.

## 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.

## EMAIL (Campus Email Accounts)

All Whittier College students are assigned an individual Whittier email address and have access to the My.Whittier.edu web portal system. The My.Whittier system provides personalized information and services to members of the college community. Through My.Whittier, students can securely access resources such as email, news and event information, personal information, academic records, student account, financial aid, and other student business information.
All students are assigned an individual email address which consists of their username followed by @poets.whittier.edu. College information and official college communications are sent to this email address. My.Whittier's e-mail is an official means of communication through which students may contact the college and the college may contact students. My.Whittier can be found at http://my.whittier.edu.

Along with other forms of campus communications, such as campus mail, students are responsible for receiving, reading, complying with, and responding to official email communications from the college.

## Family Education Rights and Privacy Act (FERPA)

The purpose of the Family 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, id number (not Social Security Number) address, telephone number, e-mail address, 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 annual 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.

## 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 on the Registrar's web-site. 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.

## 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 Registrar. The Registrar will inquire into the matter and attempt to bring about an amicable solution. If no agreement can be reached, and the Registrar decides that the matter requires further attention, then
4. The Registrar will direct the student to complete a Grade Appeal Petition, which will be forwarded to the Grade Appeals Committee, composed of the Associate 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 affected, 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.

## Grade Definitions

A Excellent Generally reserved for the very highest level of academic work.
B Good Meeting course requirements with a high level of performance.
C Satisfactory Awarded for satisfactory completion of all or most of the 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 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 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.

## 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 at the discretion of the instructor; however, by the fourth week of the semester, 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.

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, 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:
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) |  |  |
| C + | (2.30) |  |  |
| C | (2.00) |  |  |
| C - | (1.70) | CR | EV (*) |
| D | (1.00) |  |  |
| F | (0.00) | NC | (grades of D and F |
| W (**) |  |  | in courses taken for Credit/No Credit will receive No Credit.) |

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

## 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.

## 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' cumulative grade point averages. Students will receive the highest level of honors for which they are eligible. Those students with the following grade point averages will receive the corresponding Honors at commencement:
3.70-3.79: Cum Laude
3.80-3.89: Magna Cum Laude
3.90 and above: Summa Cum Laude

In order to graduate with academic honors, the student must have earned at least 60 credits at Whittier College. No less than two-thirds of the total credits earned must be letter grades.

## Incomplete Grades Policy

A grade of Incomplete may be issued to a student in a course for which the student has been unable to complete the requirements due to extenuating circumstances. The student must request a grade of "Incomplete" using the Application for Incomplete Grade form found on the Registrar's Forms web page. An incomplete may be assigned at the Instructor's discretion and only when exceptional circumstances, circumstances beyond the control of the student, have prevented the student from completing the final assigned work or examination. The instructor will note requirements to be completed on the application form. Incompletes may not be granted to students for improper time management, academic overload, or outside employment conflicts.
All requirements to satisfy the incomplete grade must be completed no later than 10 weeks following the last day of the term in which the incomplete is issued. Failure to complete the work within the time allotted will result in the student receiving a grade based upon the work completed prior to the incomplete. In many cases this will result in a Failure for the course

## Independent Study

Independent Study is a tutorial arrangement with a faculty member. Independent 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 Independent Study.
3. The student may take only one Independent Study in a given semester.
4. Independent Study courses may be arranged for one to three credits.
5. Independent Study is offered at the discretion of the faculty member who will be supervising the tutorial.
6. Students must have completed 30 units of credit and be in good academic standing, demonstrating the ability to engage in self-directed study under the guidance of a faculty member.

## IP In-Progress Grades Policy

Assigned when an educational experience (e.g., student teaching, internship, or practicum) is designed to extend beyond the traditional grading term, a grade of IP must be accompanied by a date at which a final grade is due. If a grade is not submitted to the Registrar by the specified date, a grade of "IN" will be assigned. Thereafter, the course is governed by the policy of "Incomplete Grades." A grade of IP cannot be assigned for a traditional course as a means to extend the grading period beyond the traditional term.

## Non-Degree Standing

For those interested in academic pursuits outside of any degree requirements, "non-degree" standing is permissible on either a part-time or full-time basis with the approval of the Office of the Registrar. 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 nondegree status toward a Whittier College Bachelor of Arts and no more than 12 nondegree credits toward the Master's degree at the College.

## Readmission

Those students who have interrupted their studies at Whittier for a semester or more must apply for readmission through 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. If a student is away longer than six consecutive semesters or eight total semesters he/she returns under the graduation requirements in the college catalog in place at the time of the student's re-enrollment.

## 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 registration for the upcoming semester.

Students 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 preenroll 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 Class Schedule and Registration Guide. The faculty mentor or advisor must approve all program changes. Once classes have started, individual instructors must approve the addition or dropping of any student in their classes. No adds are accepted after the first week of classes. Students may drop with no record of attempting the course through the third week of the semester, and may withdraw from a course through the sixth week with a grade of "W" posted.

## 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.

## ROTC

Although actual ROTC courses are not taught on the Whittier College campus, "cross-town" agreements with other institutions exist to allow qualified Whittier College students to participate in the Air Force Reserve Officers Training Corps (AFROTC) or the Army Reserve Officers Training Corps (AROTC).
Upon the registrar's approval, academic credit earned in these programs may be counted as elective units toward fulfillment of Whittier College graduation requirements. Additional information is available at the Office of the Registrar.

## 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.
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.

## Student Grade Report

A formal student grade report indicating academic achievement is issued for each term. Grade reports are available online to all students. Under special circumstances, and by special request only, printed grade reports may be sent to the student mail boxes at the end of the fall semester and the January Interim, and mailed to the student's permanent address at the end of the spring semester.

## Study Load

For undergraduate students, 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. For Graduate Students, a minimum full-time study load is 9 credit hours per term.

## Transfer Credit Policy

Whittier College accepts courses in transfer as long as the courses were completed at a regionally accredited institution. Whittier will not accept courses that earned a grade lower than a C-. A student may not receive credit for courses taken at a community college after completing 70 units of college work. A maximum of 70 credits may be transferred from a community college. A combined maximum of 90 credits from community colleges and four-year institutions can be transferred.

## 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.
All transcripts carry a fee of $\$ 5.00$ payable upon submission of the request.
Transcripts and diplomas will be withheld for any student who has outstanding financial obligations to the College.

## Veteran's Benefits

Whittier College is approved to train veterans under Title 38, Chapter 36, U.S. Code Sections 3671(a) and 3672(a). Eligible individuals must submit copies of their honorable discharge, VA eligibility and transcripts of all previous educational experiences for review. See the VA Coordinator in the Registrar's Office for further information.

## WITHDRAWAL POLICIES

## Instructor Drop

Faculty may, through the end of the fifth school day for semester classes, drop students who have never attended class (also see Attendance policy).

## Dropping Classes

With the approval of the advisor, and the signature of the instructor, students may drop a class without record of enrollment 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. A grade of "W" will be assigned. 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 or Unofficial Withdrawal from Courses

Students are responsible for course registration and changes to their schedules. Any student who unofficially withdraws from a course by ceasing to attend, or fails to submit required coursework, will receive a grade of " $F$ " for the course.

## 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 Dean of Students' 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.

## 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, known as the Liberal Education Program at Whittier, 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 Liberal Education Program provides an academic framework for collaboration and transformation within the community that is Whittier College. Through the Liberal Education Program, Whittier College prepares students to solve problems and communicate ideas in an increasingly complex and interdependent world community. It does this through its emphasis on cultural perspectives and the importance of connections between different fields of knowledge. Both critical thinking (the development of the skills and methods necessary for systematic investigation -- i.e. the ability to define, analyze, and synthesize using a variety of methods and technologies) and the practical application of knowledge inform all elements of the program and are central to the transformation that distinguishes Whittier College graduates.

## Learning goals

I. Students should develop the ability to make connections across disciplines in order to understand the convergence and divergence of different fields of knowledge and to understand the nature of an academic community.
II. Students should develop an understanding of, and competency in, the use of signs and symbols to construct, create, perceive, and communicate meaning.
III. Students should develop the capacity to entertain multiple perspectives and interpretations.
IV. Students should develop an understanding of culture and the connections between themselves and others in relation to physical, historical, social, and global contexts.
V. Students should develop breadth, defined as familiarity with essential concepts in major fields, and depth, defined as knowledge of at least one field (usually achieved in the major).

## Outline of the Liberal Education Program Core

The goals of the Liberal Education Program are met by a set of core requirements that are contained in a framework of four categories. The selection of these four categories is a reflection of what we value most here at Whittier College.

- Community: The transformative experience begins in learning communities that introduce the idea of building connections across disciplines, as well as the importance of interdisciplinary approaches to understanding the world.
- Communication: Students learn to communicate understanding using different sets of symbols.
- Cultural Perspectives: Students gain cultural perspective by exploring different cultures.
- Connections: Students again connect as a community in the context of interdisciplinary courses and pairs.


## 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 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 affect and 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 "Peaceful Paths: Nonviolence and Political Change", "Freedom and Liberty", and "What Do People Do All Day." The second component of the Writing Program is the Writing Intensive 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.

## REQUIREMENTS FOR GRADUATION

All undergraduate 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 by the start of the fall term. 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 (see College Writing Programs, page 76), and residence at Whittier College while completing a minimum of 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.

## 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 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 Registrar's 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.

## 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. [Should we change language to reflect Connections I?]

## 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 secondsemester 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 offcampus requirement.

## ACADEMIC SUPPORT PROGRAMS AND SERVICES

## Bonnie Bell Wardman Library

The Bonnie Bell Wardman Library occupies a central position on campus. Its collections total 259,579 volumes and has seating for 300 readers and researchers. Library collections are available in open stacks, as are the 707 periodicals currently received with another 2926 full text in electronic format. Wardman Library is a designated depository for both federal and state documents. First Search, GaleNet, Academic Universe, MathScNet, JSTOR, InfoTrac, PsychInfo 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.

## Information Technology Services

IT Services offers a wide array of computing, networking, and telecommunications resources and services to members of the college community to facilitate teaching and learning, research, and administrative activities to further the College's mission. Among the services we provide are voice and data communications including telephone and network service to the residence halls, administrative computing including self-service access to administrative services via the web, e-mail and calendaring, and web and web portal services.

## Center for Academic Success (CAS)

CAS exists to support all students in achieving academic success: to help underprepared students prepare, to help prepared students advance, and to help advanced students excel. CAS provides individual academic counseling, tutoring, supplemental instruction, a computer learning lab, and instructional workshops. Through individual academic counseling, students receive personalized assistance to assess learning styles and develop study skills. Tutoring and supplemental instruction are available, free of charge, for most classes through student leaders who are committed to helping their peers. The computer learning lab is equipped with internet and a comprehensive software program designed to diagnose and improve basic skills in reading, writing, language, and math. Furthermore, workshops are given throughout the year on topics such as time management, stress, motivation, and more. Students must access these services on their own personal initiative so as to reflect their desire for help and motivation for growth.

## 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 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 Center for Academic Success (CAS) 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 through CAS.

## 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 hypermediacontrolled videodisks. The Music Department has a Macintosh MIDI synthesizer lab 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 rich variety of opportunities for studying children, family relationships, and developmentally based approaches to education.
The school serves children between the ages of 2.5 and 12 years in the regular school year and extends through 8th grade in its summer programs. The preschool and elementary-grade curriculum emphasizes active, self-initiated learning; critical thinking; problem solving; intercultural understanding; shared responsibility and social justice. The school's population is highly diverse, including children with a wide range of academic abilities and challenges, as well as children with a variety of special needs, including autism, cerebral palsy, profound deafness, ADHD, and others.

Both undergraduate and graduate students work directly with children with supervision from 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.

In addition, undergraduate and graduate students have the opportunity to join faculty research teams. Recent research projects have focused on such topics as peer relationships, ethnic identity development, the effects of September 11 on children's sense of self, peer aggression, and children as eye witnesses in forensic settings.
Broadoaks offers professional development programs for teachers and administrators throughout California. In addition, Broadoaks provides a few highly selective graduate and undergraduate teaching fellowships each year. Broadoaks Undergraduate Teaching Fellows usually work part-time as members of the school's instructional team as they complete their Bachelor of Arts degree in child development or a related field. Additional information about teaching fellowships is available through the Broadoaks office.

Broadoaks is also home to the first collegiate chapter of the world-wide child advocacy organization known as OMEP. This organization is open to all Whittier College students interested in promoting children's rights, locally, nationally, and internationally.

## The Lautrup-Ball Cinema

This room serves the College primarily as a teaching space, but also houses the film series which takes 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

## Division of Natural Sciences

Department of Biology
Department of Chemistry
Department of Earth and Environmental Science
Department of Mathematics
Department of Physics and Astronomy

Division of Social Sciences<br>Department of Business Administration<br>Department of Economics<br>Department of Education and Child Development<br>Department of Kinesiology and Leisure Science<br>Department of Political Science<br>Department of Psychology<br>Department of Sociology, Anthropology and Social Work

## Course Numbering

1-69 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 Independent 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.
500-699 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, ... 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.

# Ria O'Foghludha 

Endi Poskovic
Paula Radisich
Kim Russo
David Sloan, Chair

Art History is the formal study of art objects and their relationship to culture, commerce, and politics; studio art is the practice of making art objects and images with emphasis on the articulation of both form and content. 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 Getty Center, 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, computer art, 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 self-evaluation. 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
Western Art: Pre-History to $14^{\text {th }}$ Century, ART 205, 3 credits
Western Art: $15^{\text {th }}$ through $20^{\text {th }}$ Centuries, 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, computer art, 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, 210, 222 or 252,369 , and at least one upper-division course chosen in consultation with a department faculty advisor.

## ART HISTORY

## 205 Western Art: Pre-history through the 14th Century

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 Western Art: 15th through 20th Centuries

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.

## 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.

## 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.

## 382* Art of Colonial Spanish America

Surveys the art produced within the interaction of different ethnic groups under Spanish rule in California, Southwestern United States, Mexico, Central America, and the Andes. 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

NOTE: Students enrolling in Studio Art classes are charged a materials fee.

## 100 Introduction to Art 2-D

Explores a variety of processes for creating two-dimensional 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 emphasizing wood, steel 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.

## 200 Introduction to Computer Art

An initial study of basic software for the Macintosh computer as related to fine art. Photoshop© and Illustrator®, both essential software programs for artists and designers, are covered. The technical and conceptual potential of the computer is explored by applying established and contemporary principles of art and design. Differences and similarities between commercial and non-commercial computer generated art are addressed through assignments, which cover both approaches. The ultimate goal of the course is to enable students to create their own imagery using the computer as a tool in making art. One semester, 3 credits.

## 201* Computer Art Workshop

This course is a condensed version of Art 200, introducing the student to computer art in an intensive 4 -week class. January session, 4 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. 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. 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. Permission. January session, 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. 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. January session, 4 credits.

## 221* Printmaking Workshop

Introduces the students to the printmaking medium by presenting traditional and experimental processes in a condensed, intensive 4 -week class. 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. Prerequisites: 100 or 210 . One semester, 3 credits.

## 232, 332 Ceramics I, II

Problems designed to take the student from basic hand forming methods to advanced techniques of clay construction and design. Recommended: ART 101. One semester, 3 credits.

## 242, 343* Printmaking I, II

An 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 of 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. Prerequisite: 100. Permission required for Printmaking II. 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. Prerequisite: 101. One semester, 3 credits.

## 300* Computer Art II

A continuation of Computer Art I with emphasis placed on developing one's own imagery and innovative approaches towards computer software and peripherals. The objective is for students to further deepen their understanding of contemporary art using the computer as a tool. Prerequisite: 200. One semester, 3 credits.

## 301 Special Projects in Computer Art

A continuation of Computer Art I and II. Designed for advanced students in studio art to further explore their aesthetic and conceptual ideas using the computer as a tool. May be repeated for credit. Prerequisite: 300 or instructor's permission. One semester, 3 credits.

## 303* Printmedia in Visual Communications

Encompasses both traditional and digital printmaking processes with a strong emphasis on the history of 20th-century graphics and printed images in visual communications.

Major movements in printed graphics such as the Russian Avant-Garde, Bauhaus and Die neue Sachlichkeit in the Weimar Republic, the WPA Federal Arts Project, Chinese Propaganda Posters, Solidarnost Posters from Eastern Europe, Mexican Revolutionary Posters are studied. Connection between diverse cultural, political, and economic communities and issues such as urban society, religion, ethnicity, and cultural and political changes are analyzed by examining, and better understanding, prints and multiples. The ultimate goal of the course is to enable students to create their own imagery utilizing a variety of printing techniques and the computer as a tool in their own art making. Prerequisite: 100 or instructor's permission. One semester, 3 credits.

## 310* Figure Drawing

Introduction to figure drawing with awareness of the human body's basic structure and form. 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 100 and 210. Designed for advanced students in studio art to further explore their aesthetic and conceptual ideas in drawing, painting, printmaking and mixed media. May be repeated for credit. Prerequisites: 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: 323. Permission. 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: 333. Permission. One semester, 3 credits.

344 Special Projects in Printmaking A continuation of Printmaking I and II. Designed for advanced students in studio art to further explore their aesthetic and conceptual ideas through matrix or non-matrix printmaking. May be repeated for credit. Prerequisite: 343 , or instructor's 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: 252. One semester, 3 credits.

190*, 290*, 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.

## Independent Study

295, 395, 495 Independent Studies
Credit and time arranged. Permission. May be repeated for credit.
*Not offered every year.

Edward G. Bobich

David Bourgaize, The Fletcher Jones Professor of Molecular Genetics, Chair
Stephen R. Goldberg, The Roy E. and Marie G. Campbell Professor of Biology Warren Hanson
Clifton Morris, The James Irvine Foundation Professor of Biology Cheryl Swift

aologists investigate a phenomenon that even philosophers have difficulty defining-the concept of "LIFE." As mysterious as it is, life manifests itself innumerous ways and with many layers of complexity. From non-living 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: molecular-cellular, 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

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
Herpetology, BIOL 360, 4 credits
Entomology, BIOL 386, 4 credits
Developmental Biology, BIOL 404, 4 credits
Animal Physiology, BIOL 428, 4 credits
Plant Systematics, BIOL 473, 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
Entomology, BIOL 386, 4 credits
Evolutionary Biology, BIOL 445, 4 credits
Plant Systematics, BIOL 473, 4 credits
Advanced Field Studies, BIOL 485, 4 credits
Herpetology, BIOL 360, 4 credits
4) Completion of CHEM 110A,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.

## 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.

## 115* Animal Behavior

Diverse types of behavior exhibited by animals. Lectures and laboratories. One semester, 3 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.

## 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.
## 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: 205, 210. One semester, 4 credits.

## 345 Comparative Vertebrate Anatomy

A comparative survey of the anatomy of the different vertebrate groups with attention to evolutionary development. Extensive dissections required. Lectures and laboratory. Prerequisite: 210. One semester. 4 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.

## 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.

## 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* Plant Systematics

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

485 Advanced Field Studies
Variable Credits. Permission.

## 190, 290, 390, 490 Selected Topics in

 BiologyVariable 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, 1 credit.

295, 395, 495 Independent Study
Variable credits. Permission. May be repeated for credit.

496 Undergraduate Research
Variable credits. Permission. May be repeated for credit.
*Not offered every year.

David W. Crain

Jeffrey N. Decker
Daniel F. Duran
Charles R. Laine, Chair
John H. Neu, affiliate
Lana S. Nino

$\tau$he 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 indepth 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
Introduction to Literature, ENGL 120, 3 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 (BSAD)

## GENERAL BUSINESS COURSE OFFERINGS

## 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.

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. Students will learn analytical problem solving skills and apply them to hands-on projects. 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.

## 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, 1-3 credits.

## ACCOUNTING

## 201 Principles of Accounting I

Introduces financial accounting. Emphasizes measuring, reporting, and analyzing financial activity. Covers the accounting cycle, accounting for assets, liabilities, equity, revenues, expenses, and financial statements. Prerequisites: 130, and MATH 80 or 81; or sophomore standing. One semester, 3 credits.

## 202 Principles of Accounting II

Continues 201 and introduces managerial accounting. Covers financial statement analysis, managerial/cost concepts, job-order and process costing, CVP relationships, and budgeting. Prerequisite: 201. 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.

## 308* Accounting Information for Decision Making

The course emphasizes financial literacy at the managerial level. Based on intermediate accounting principles, the course teaches students to analyze company financial data including management reports and quarterly and annual reports. Prerequisite: 201. One semester, 3 credits.

## 309* Accounting Information Systems.

The course promotes accounting efficiency, audit trail of accounting systems, and simplicity and transparency that managers and decision-makers expect when using accounting systems. Students will use Access database software to reinforce accounting system design principles. Prerequisite: 201. 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. Prerequisite: 201. Recommended: 202, MATH 80 and either MATH 81, 139A,B, or 141A. 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 multinational financial management 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.

## International Business

333 Managing Multinational Corporations Establishing and managing international business operations under widely fluctuating economic and socio-political conditions. Team projects and case analysis, field visits (typically to Mexico) and guest lectures supplement a rigorous analysis of this subject. Prerequisite: 130 or permission. January, 4 credits.

## 343* E-Commerce Business Plans

This course focuses on developing an ecommerce international business plan and considers the delivery of product and services in the international arena via e-commerce distribution channels that can provide a competitive edge. Prerequisite: 130 or permission. One semester, 3 credits.

## 350 International Business

An introduction to all facets of international business. Team Projects, 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.

## 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. Team Projects. Prerequisite: 320 and 350 . One semester, 3 credits.

## MANAGEMENT

## 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* Leadership Challenges of the 21st Century

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 or January, 3 or 4 credits.

## 333 Managing Multinational Corporations

See International Business Section.

## 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.

## 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

See International Business section.
425* Integrated Marketing Communications Strategic management of advertising, personal selling, sales promotion, public relations, and packaging. Prerequisite: 320 . One semester, 3 credits.

## Additional Offerings

190, 290, 390, 490 Selected Topics in Business Administration
Variable credits. Permission. May be repeated for credit.

295, 395, 495 Independent Studies
Credit and time arranged. Permission. May be repeated for credit.
*Not offered every year.

## CHEMISTRY

Priscilla B. Bell<br>Devin S. Iimoto, Chair<br>Charles F. Reeg

$\tau$
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 220A,B, 5 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 A,B, 7 credits and
Math 141B, 4 credits
Introductory Optics \& Modern Physics, Introductory Mechanics \&
Electromagnetism, PHYS 130, 131, 8 credits or
Introductory Optics \& Modern Physics, Introductory Kinematics \& Mechanics, Introductory Electricity \& Magnetism, PHYS 130, 150, 180, 2 credits (with permission from the Chemistry department)

I Major in Chemistry
A minimum of 36 chemistry credits.
Choice of 6 additional chemistry credits ( 300 level or above).

II Major in Biochemistry
A minimum of 41 chemistry credits.
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 47 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 21 credits: 110A,B; 220A,B; 231A,B; 233A,B.

## NOTE: All laboratory courses require a laboratory fee.

## 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.

## 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, 3 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.

## 220A,B Quantitative Analysis

Lecture (2 credits in the Fall) and laboratory (3 Credits in January) covers elementary 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, 5 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. Corequisite: 233 . 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. Corequisite: 231 . Two semesters, 1 credit each.

## 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: 220B, 231B, PHYS 130, 131 or PHYS 130, 150, 180, 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. Corequisite: $321 \mathrm{~A}, \mathrm{~B}$. 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 220A, B. 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: 321 B 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. 471B 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: 233B, 321A, and 491. January, 3 credits.

190, 290, 390, 490* Selected Topics in Chemistry
Variable credits. Permission. May be repeated for credit.

## 491 Seminar

A novel research project is developed and a proposal written and presented. Students are further trained in giving oral presentations on topics that lead to the development of their proposal. May be repeated for credit. One semester, 2 credits.

## 295, 395495 Independent 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.

[^0]Charles Eastman, Acting Director of College Writing Programs

Olhittier'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.
Peer tutoring is offered through the Center for Academic Success. 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 22 College Writing Seminars offered in Fall 2004:
Peaceful Paths: Nonviolence and Political Change
These days, the news seems to be filled with multiple forms of political violence. Headlines bombard us with reports of prisoners tortured in Iraq, Christians and Muslims slaughtering each-other in Nigeria, and armed gangs ousting the Haitian president. Nearly everywhere, we see people pursuing political change through violence. Is there another way?
This course explores nonviolent paths to political change. Numerous religious and secular leaders have rejected violence as an acceptable method. We will look at their arguments, as well as exploring the practical implications of these moral positions. Is it ever justified to break the law, and if so, when and how? Neither Gandhi nor Martin Luther King, Jr. passively accepted the government's rules and practices. But can nonviolence work? Can protests, demonstrations, and-the central tool
of this class-words replace such weapons? Or, on the contrary, must all paths to political transformation be stained by blood? Readings, discussions and writing assignments will be geared to helping each student find his or her own answer to these questions.

## Freedom and Liberty

Freedom and liberty are hallmarks of the American way of life. We often take for granted the rights and ignore the responsibilities associated with the freedom and liberty we enjoy today. Free speech and civil liberties, as we know them, have emerged over centuries, thanks to the wisdom, moral conviction and determined effort of individuals and groups at critical moments in history.
This Freshman Writing Seminar will look at the germination, development and current status of freedom and liberty in our culture. In examining the foundations of freedom we will study John Milton's "Areopagitica," John Stuart Mill's "On Liberty," and the Bill of Rights, seminal documents that continue to echo today in debate about free speech and individual liberty. These will provide some understanding of the development of the concepts represented in the earlier readings. Finally, we will see how these concepts are playing out today as we look at challenges to free speech in the arts, press censorship and the Patriot Act.

## What Do People Do All Day?

The title of this class is taken from Richard Scarry's famous children's book, which explores the work people do in a fictional place called "Busytown." Scarry introduces Busytown's diverse roster of workers, and he painstakingly describes the function and meaning of daily labor to young readers who still get to enjoy an afternoon nap. At a more advanced level, our class will elaborate on Scarry's premise-that what people do all day is worthy of study and reflection. This is not a class on career planning (although it may help you decide what you will and won't do with your college education). Rather, it is a serious exploration of work and workers, the meanings we affix to certain kinds of labor, how jobs have changed over time and place, and how we think about and value work today. Studs Terkel wrote that work can be about beauty, pride, and connection, but it can also be about violence "to the spirit as well as to the body." We will test his hypothesis, using a sprinkling of history, sociology, and anthropology. We will read stories of ordinary people at work, including Terkel's own interviews with bus drivers, beauticians, farmers, sports figures, artists, and more. Along with books, we will study labor through photography, movies, and songs,. The capstone experience will be your own field research: you will do an oral history interview with a worker. Students will present their findings, enabling all of us to think about what we do all day, why we do it, and what it means.

## 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 2004:
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 20042005 include: Introduction to Literature; Introduction to Ethics; Introduction to Sociology; and Introduction to the Theatre.

## 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 Center for Academic Success. 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.

David Campbell<br>Charles R. Laine, Affiliate<br>Simon J. Lamar<br>Gregory R. Woirol, Chair, The Douglas W. Ferguson Professor of Economics and Business Administration

更conomics is the social science concerned about the practices, institutions, and customs societies have developed to produce and distribute goods and services. 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 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 three 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 business-oriented programs); and Pre-Professional Economics (for students planning graduate work in economics).
General Distributive Option:
Principles of Economics: Macroeconomics, ECON 200, 3 credits
Principles of Economics: Microeconomics, ECON 201, 3 credits
Intermediate Macroeconomic Theory, ECON 300, 3 credits
Intermediate Microeconomic 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 other 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:

All of the courses under the General Distributive Option Plus:

Introduction to Econometrics, ECON 305, 3 credits
History of Economic Thought, ECON 315, 3 credits
Calculus and Analytic Geometry, I, II, MATH 141A, B, 8 credits

## 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 (ECON)

## 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:

 MicroeconomicsIntroduction 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. 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: 300 or 301 . 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 America

Analysis of changes in labor markets and labor institutions in the past 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 evolution and performance of economic systems, including capitalism, market socialism, and centrally planned socialism. Prerequisites: 200, and 201. One semester, 3 credits.

## ADDITIONAL OFFERINGS

## 190, 290, 390, 490 Selected Topics in

 EconomicsVariable credits. Permission. May be repeated for credit.

## 295, 395, 495 Independent Studies

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

[^1]Donald W. Bremme

Kathleen S. Ralph, Chair
Kay Sanders
Anne Sebanc
Irene Serna
Judith T. Wagner
Claudia Ramirez Wiedeman

hevhe Department offers studies in two distinct fields: education and child development. Education programs lead toward teaching credentials. (California law does not permit students to major in education.) An undergraduate minor in elementary education and a program leading to a Master's Degree are also offered in education. 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 social constructivist approach toward learning and teaching; (2) valuing diversity and supporting all students' learning; (3) establishing a just, inclusive learning community in and beyond the classroom; (4) nurturing both collaborative and independent inquiry and learning; and (5) growing professionally by continually reflecting on one's practice and pursuing other opportunities for learning.
Whittier College is fully accredited by the California Board of Education and the California Commission on Teacher Credentialing to offer programs leading toward both the Multiple Subject (elementary) Teaching Credential and the Single Subject (secondary) Teaching Credential.
The Multiple Subject and Single Subject teacher education programs enable students to make substantial progress toward their teaching credentials as undergraduates, taking prerequisites during the freshman and sophomore years and required teacher preparation courses during their junior and senior years. Students can then complete their remaining credential requirements as graduate students.
Because California law does not permit majoring in education, credential candidates must also 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.
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, as well as a 3.0 minimum GPA, with no grade less than B-, in the professional-preparation courses listed as requirements on the next few pages.

The information and 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 also available there. Undergraduate students should obtain this information -and begin meeting with an education advisor-as soon as they become interested in elementary or secondary teaching. Early advisement is critical to successfully planning a teacher education program.
Post-baccalaureate (graduate) students who meet all prerequisite and entrance requirements can complete all credential and Master's program requirements through evening and summer courses. Procedures and requirements for postbaccalaureate students differ from those for undergraduates. These procedures and requirements are described in separate documents available from the Whittier College Education Department. Post-baccalaureate students should obtain program information and advisement from the Department as early as possible for admission to summer and fall cohorts.
For both undergraduate and graduate students, a grade of B-or above is required in each teacher preparation course in order to enroll in the next course(s) in the teacher-preparation program sequence. When a grade below B- is earned in a course, a student must do the following before enrolling in any other teacher preparation course:

1) Petition the department for permission to retake the course in which a grade below B- was earned, and if permission is granted
2) Retake the course and earn a grade of B- or above.

Petitions take the form of a letter to the Department Chair. The petition may also request permission to proceed with the teacher preparation course sequence before retaking a required course. Such requests are granted only rarely in exceptional cases. More information on petition letters and the petition process is available in the Department of Education and Child Development.

## PREREQUISITES AND PROFESSIONAL PREPARATION REQUIREMENTS FOR TEACHING CREDENTIALS

The teacher education programs for students pursuing the Multiple Subject (elementary) and Single Subject (secondary) Teaching Credentials include planned prerequisites and professional preparation courses. Students should plan their undergraduate programs so as to take the prerequisites during their freshman and sophomore years. Professional preparation requirements are not open to freshmen or sophomores. Students should take the sequence of required professional preparation courses in the junior year and after. The prerequisites and professional preparation courses for the Multiple Subject (elementary) and Single Subject (secondary) Teaching Credentials are listed on the next few pages.

FOR THE PRELIMINARY MULTIPLE SUBJECT TEACHING CREDENTIAL:
Prerequisites:
Introduction to Human Development, CHDV 105, 3 credits or
Child Psychology, PSYC 242, 3 credits
Sociological and Anthropological Perspectives on Education, EDUC 300, 3 credits
Movement Education in the Elementary School, KLS 320, 3 credits
Required professional preparation courses:
Teaching Diverse Learners, EDUC 401, 3 credits
Learning and Learners, EDUC 406, 3 credits
Literacy Development in the Elementary School, EDUC 402, 3 credits
Second Language Acquisition and Methodology, EDUC 404, 3 credits
Multiple Subject Curriculum and Pedagogy: Integrating Language Arts, History-Social Science, and Visual-Performing Arts, EDUC 405, 3 credits
Multiple Subject Curriculum and Pedagogy: Math and Science, EDUC 407, 3 credits Promoting Students' Health \& Safety, KLS 509, 1 credit
Working with Special Populations I \& II, EDUC 510 \& 511, 1 credit each Student Teaching/Internship, EDUC 520, 12 credits. (To qualify for student teaching or internship, students must have completed all prerequisites and subject matter requirements. Consult Department materials for a complete list.)
Professional Development Seminar, EDUC 521, 1-2 credits. (Must be taken concurrently with Student Teaching/Internship.)

FOR THE PRELIMINARY SINGLE SUBJECT TEACHING CREDENTIAL: Prerequisites:

Introduction to Human Development, CHDV 105, 3 credits or Psychology of Adolescence, PSYC 242, 3 credits

Sociological and Anthropological Perspectives on Education, EDUC 300, 3 credits
Required professional preparation courses:
Teaching Diverse Learners, EDUC 401, 3 credits
Learning and Learners, EDUC 406, 3 credits
Teaching Content Area Literacy, EDUC 403, 3 credits
Second Language Acquisition and Methodology, EDUC 404, 3 credits
Single Subject Curriculum and Pedagogy I, EDUC 408, 3 credits
Single Subject Curriculum and Pedagogy II, EDUC 409, 3 credits
Promoting Students' Health \& Safety, KLS 509, 1 credit
Working with Special Populations I \& II, EDUC 510 \& 511, 1 credit each

Student Teaching/Internship, EDUC 520, 12 credits. (To qualify for student teaching or internship, students must have completed all prerequisites and subject matter requirements. Consult Department materials for a complete list.)
Professional Development Seminar, EDUC 521, 1-2 credits. (Must be taken concurrently with Student Teaching/Internship.)

## GUIDELINES FOR A MINOR IN ELEMENTARY EDUCATION

A minor in elementary education requires 20-21 credits, including CHDV 105, CHDV 315 or 330 , EDUC 401, 402, 404, 406, and one additional course from an approved list.

## EDUCATION COURSE DESCRIPTIONS (EDUC)

## 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. 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.

## 103* Introduction to Sociological Perspectives on Education

This course examines the processes and outcomes of education, especially in the United States, from a sociological perspective. It defines education broadly, as it occurs both in and beyond school, exploring formal and informal learning and the process of socialization/enculturation, as well as education in relation to class, gender, and identity. One semester, 3 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 language in relation to social identity, inter-group relations, and learning, especially in the context of diversity in the United States. Fieldwork in community settings is required. One semester or January, 3-4 credits.

## 300 Sociological and Anthropological Perspectives on Education

Examines the socio-cultural and historical contexts in which learning and development occur. Topics include the social and cultural conditions of K-12 schools, the historical and cultural traditions of major cultural and ethnic groups in California society, and how the background experiences, languages, skills and abilities of members of these groups interact with conditions and practices of schools. Explores concepts, principles, and values necessary to create and sustain an equitable classroom community and a just, democratic society. Fieldwork required. One semester or January, 3 credits.

## 401 Teaching Diverse Learners

Provides theoretical and practical knowledge necessary for working with culturally diverse K-12 students, families, and communities. Includes analysis of alternative viewpoints on current educational goals, practices, and issues, as well as methods for building a just, democratic classroom culture. Requires 20 hours of fieldwork. Prerequisites: 300, CHDV 105 , and permission. One semester, 3 credits.

## 402 Literacy Development in the Elementary School

Research 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 word identification 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: 401, 406, and permission. One semester, 3 credits.

## 403 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, strategies for promoting oral and written language, phonological/structure of the English language, and writing across the curriculum. Requires 20 hours of fieldwork. Prerequisites: 401 and 406 for undergraduates. One semester, 3 credits.

## 404 Second Language Acquisition \& Methodology

Examines native and second language development in theory and as applied to multicultural/multilingual educational contexts, helping prospective teachers develop a sound understanding of first (Ll) and second language (L2) processes. Focuses on the socio-cultural, historical, political nature of language learning in the classroom and how the educational system addresses the needs of English Language (EL) Learners. Requires 20 hours of fieldwork. Prerequisites: 401, 402 or 403 , and 406. One semester, 3 credits.

405 Multiple Subject Curriculum \& Pedagogy: Integrating Language Arts with History-Social Science and the Visual \& Performing Arts
Research and methodology for integrating language arts with social studies and the visual and performing arts in linguistically and/or culturally diverse elementary classrooms. Topics include: writing in the content areas, literature-based instruction, use of simulations, case studies, cultural artifacts, cooperative projects, and student research activities, assessing learning, and organizing for instruction. Fieldwork required. Prerequisites: 401 and 402 . One semester, 3 credits.

## 406 Learning and Learners

Examines major concepts, principles, and research associated with theories of human thinking, learning, and achievement, with special attention to the social-cultural nature of learning, the role of students' prior understandings and experiences, and the importance of home-community funds of knowledge. Provides experience in using research-based concepts and principles in designing, planning, and adapting instruction for K-12 students. Requires 20 hours of fieldwork. Prerequisite: 401 . One semester, 3 credits.

## 407 Multiple Subject Curriculum \& Pedagogy: Mathematics and Science

 Examines the components of a well-balanced program of mathematics and science instruction. Topics in math curriculum and pedagogy include computational and procedural skills, conceptual and logical understanding, and problem-solving skills. Topics in science curriculum and pedagogy include the major concepts, principles, and investigations in science (physical, life, earth); investigation skills; how to connect science across other subject areas. Fieldwork required. Prerequisites: 401, 404, and 406. (Concurrent enrollment in 402 is possible with departmental permission.) One semester, 3 credits.
## 408 Single Subject Curriculum \& Pedagogy I

 Introduction to secondary teaching in cultural and linguistically diverse secondary schools and classrooms for Single Subject candidates in core academic subjects. Topics include: knowing and understanding state-adopted academic content standards for students; standards-based unit and lesson planning strategies focused on learning outcomes; alternative methods and strategies for assessing students' entry-level knowledge and skills, progress monitoring and summative assessment; using technology in the classroom; developmentally appropriate instruction; laws, student and family rights, professional ethics and responsibilities. Fieldwork required. Prerequisites: 401 and 406. (Concurrent enrollment in 403 is possible with departmental permission.) One semester, 3 credits.409 Single Subject Curriculum \& Pedagogy II
Advanced instructional planning and teaching methods for Single Subject candidates in core academic subject areas, with separate course sections for candidates in the areas of (1) English or history-social sciences and (2) mathematics or science. Focuses on appropriate subject-matter-specific methods for planning and teaching a comprehensive, program that enables students to achieve state-adopted academic content standards. Topics for candidates in all subject areas include supporting English language learners, responding to student diversity, developing a wide repertoire of teaching methods, and effectively using instructional resources including technology. Fieldwork required. Prerequisites: 401, 403, 404, 406, and 408. One semester, 3 credits.

## *484 World Geography

A survey including physical, cultural, and place-name geography appropriate for both undergraduate and post-baccalaureate (graduate) students, including prospective and practicing elementary and secondary teachers. Although not a pedagogy course, appropriate teaching strategies are incorporated. Fulfills the geography requirement for the California Single Subject Credential in social science. One semester, 3 credits.

190, 290, 390, 490* Selected Topics in Education
Variable credits. Permission. May be repeated for credit.

## 295, 395, 495 Independent Studies

By permission only. Time and credit arranged. May be repeated for credit.

## CHILD DEVELOPMENT

$G$hild Development offers an undergraduate major and minor, leading toward a variety of careers in working with children. Whittier's Child Development majors go to graduate schools in such disciplines as psychology, social work, marriage and family counseling, optometry, and public policy. However, many remain at Whittier for our graduate credential and Master of Arts in Education programs.

## 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 or
Sociological and Anthropological Perspectives on Education, EDUC 300, 3 credits or approved child development course in Denmark.
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 <br> Two of the following:

Cultural Contexts of Childhood, ANTH 374, 3 credits or
Sociological and Anthropological Perspectives on Education,
EDUC 300, 3 credits or approved Child Development course in Denmark
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

## 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 be repeated for credit with instructor permission. 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 or instructor permission. One semester, 3 credits.

## 477 Practicum: Integration of Theory and Practice

An 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, Instructor permission. January, 4 credits.

190, 290, 390, 490* Selected Topics in Child Development
Permission. Variable credits.

## 295, 395, 495, 595 Independent Studies in Child Development.

Time and credit arranged. Permission. May be repeated for credit.

## 497 Senior Seminar in Child Development

Builds upon previous core and extra-
departmental 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.
*Not offered every year.

Seamus Lagan (Physics), Director<br>Charles Reeg (Chemistry)

Abi Fattahi (Mathematics)

更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.whittier.edu/engineering/default.htm, 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.

In addition to satisfying the Whittier College Liberal Education requirements, all 32 students must complete the following 35 credits in science and mathematics with grades of "C" or better in each course and a 3.0 GPA:
I. Fundamentals of Physics*, PHYS 150, 180; 9 credits
II. General Chemistry, CHEM 110 A, B; 8 credits
III. Calculus and Analytical Geometry, MATH 141 A, B; 241; 12 credits (MATH 139A,B may substitute for MATH141A)
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 18 credits in mathematics.
I. Abstract Thinking, MATH 280; 3 credits
II. Linear Algebra, MATH 380; 3 credits
III. Choose one:

Introduction to Analysis, MATH 440A
or
Modern Algebra, MATH 480A; 3 credits
IV. Three additional courses in Mathematics or Computer Science, approved by the Math Department, at the 200 level or above; 9 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 18-19 credits in Physics.
I. Introductory Modern and Optics, PHYS 130; 4 credits
II. Computational Oscillations and Waves, PHYS 250; 3 credits
III. Electromagnetic Theory, PHYS 330; 3 credits
IV. Mechanics, PHYS 310; 3 credits
V. Choose one:

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

Optics, PHYS 320
or
Experimental Physics, PHYS 380A; 2-3 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.

Charles S. Adams<br>Tony Barnstone<br>Wendy Furman-Adams<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, Chair

てbe 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 1785.
3. ENGL 221 Major British and American Writers from 1660.
4. At least one course from Courses in Writing and Language (Section II below).
5. At least one course from the four categories of Advanced Courses in Literature (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.

## 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.
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 MAJOR IN ENGLISH WITH AN EMPHASIS IN CREATIVE WRITING

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 1785.
3. ENGL 221 Major British and American Writers from 1660.
4. Three creative writing workshops, including at least one at the advanced level, and covering at least two genres: fiction, poetry, screenwriting, playwriting, and/or creative nonfiction. An appropriate internship or independent study can be substituted for one of these courses. Reading and Writing Postmodern Poetry and Poetics can be substituted for Advanced Poetry Writing and will also fulfill the poetry genre course requirement. Journalism does not count as one of the two genres.
5. 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.
6. ENGL 328 Shakespeare.

## The two senior capstone courses:

7. ENGL 400 Critical Procedures in Language and Literature.
8. ENGL 410 Senior Seminar.

For other details, refer to the Guidelines for a Major in English.

## 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 (ENGL)

## I. FOUNDATIONAL COURSES IN LANGUAGE AND LITERATURE

## 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.

## 155* Language and Critical Thought

 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.
## 220 Major British Writers to 1785

A team-taught introduction to major writers in British literature to 1785 , with particular emphasis on their historical and thematic contexts. Prerequisite: 120 or instructor's 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: 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: 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: 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. 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: 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: 120 and instructor permission. One semester, 3 credits.

## 301* Advanced College Writing

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

## 302* Advanced Fiction Writing

Intensive workshop in the writing of short stories. Prerequisite: 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: 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: 120 and instructor permission. One semester, 3 credits.

## 305* Screenwriting

An introduction to writing aspects for films, including artistic and professional aspects of the trade. Workshops, readings, and writing exercises will lead toward a full-length screenplay. Instructor permission required. 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

## 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: $120 ; 220$ 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: 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: 120; 220 or 223 recommended. One semester, 3 credits.

## 324* Chaucer

A close reading of The Canterbury Tales and Troilus and Criseyde, in Middle English and with their medieval background. Prerequisite: 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: 120 (or THEA 150); 220 recommended. One semester, 3 credits.

## 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: 120 (or THEA 150); 220 recommended. One semester, 3 credits.

## 328 Shakespeare

Introduction to the major plays. Prerequisite: 120 or THEA 150. 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: 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: $120 ; 220,222$, 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: 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: 120. One semester, 3 credits.

## 334* Romantic Poetry

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

## 335* Victorian Poetry

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

## 336* The European Novel

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

## C. BRITISH AND GLOBAL LITERATURE FROM 1900 350* MODERN DRAMA

A survey of modern dramatic works from the 1870s to the 1960s, from naturalism to the Theater of the Absurd. Prerequisite: 120 or THEA 150. 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: 120. One semester, 3 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: 120. One semester, 3 credits.

## 355* Contemporary Drama

A study of key figures and movements in drama and performance art since the 1950s. Prerequisite: 120 or THEA 150. One semester, 3 credits.

## 358* Postcolonial Novel

Twentieth and Twenty-first century novels in English by writers with origins in the former British Empire. Prerequisite: 120. One semester, 3 credits.

## D. AMERICAN LITERATURE

## 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, 3 credits. (Same as SPAN 225.)

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: 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: 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: 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: 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: 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: 120. January, 4 credits.

## 370* Postmodern American Novel

An examination of American novels since 1950 in relation to postmodern aesthetics, theory, and culture. Prerequisite: 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: 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: 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: 120. One semester or January, 3 or 4 credits.

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: 120. One semester, 3 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* Discourses of Desire: Representing

 Love and Gender from Plato to Kundera Representations of romantic love by both men and women from the Song of Songs and Plato's Symposium, through the Middle Ages and Renaissance, to the end of the twentieth century. Prerequisite: 120; 220 recommended. One semester, 3 credits.
## 382* History of Literary Criticism

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

## 385* Celtic Literature

This course offers an overview of Irish, Welsh, Scottish, Cornish, Manx, and Breton literary traditions. Beginning with the ancient texts of the Tain and the Mabinogion, this survey will finish with an exploration of present-day Celtic literature. Prerequisite: 120. One semester, 3 credits.

## 386* Satire

The main currents, techniques, and purposes of satire from ancient Greece to the present. Prerequisite: 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: 120. One semester or January, 3-4 credits.

190, 290, 390, 490* Selected Topics in English and American Literature Advanced study in a major figure or movement. Permission required. One semester or January, 3-4 credits. May be repeated for credit.

295, 395, 495 Independent 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: 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 Literature

Consideration 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.

## 410 Senior Seminar

Intensive study of a particular figure or topic, for seniors. Prerequisites as appropriate to the subject. Permission required. May be repeated for credit. One semester or January, 3 credits.
*Not offered every year.

Carlos Garcia<br>Ralph Komai<br>Seamus Lagan, Affiliate member (Physics)<br>Charles Reeg, Affiliate member (Chemistry)<br>Cheryl Swift, Affiliate member (Biology), Chair

更nvironmental Science is an emerging interdisciplinary approach to examining the environmental problems that human society is Currently facing on Earth; among them understanding the implications of global climate change, costs and benefits of maintaining biodiversity, the handling and disposal of hazardous materials, and managing risks 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 of the environmental science curriculum at Whittier College. 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 multiple perspectives.

## GUIDELINES FOR A MAJOR IN ENVIRONMENTAL SCIENCE

Students must complete the following 55-57 credits in environmental science, biology, chemistry, earth science, and physics to be awarded a B.A. in Environmental Science from Whittier College:

## Environmental Sciences Courses

Introduction to Environmental Science, ENVS 100, 4 credits

## Biology Courses

Life Science, BIOL 195, 4 credits Plant Form and Function, BIOL 205, 4 credits
Conservation Biology, BIOL 379, 4 credits
or Marine Biology, BIOL 384, 4 credits

## Earth Sciences Courses

Earth Systems: The Solid Earth, ES 100, 4 credits
or Earthquakes, Volcanoes, and Other Geohazards, ES 110, 4 credits
Earth Surface Environments, ES 105, 4 credits
Earth Materials, ES 200, 4 credits Structure of the Earth, ES 440, 4 credits
Water Resources, ES 470, 4 credits

Chemistry, Physics, and Math Courses
General Chemistry I, CHEM 110A, 4 credits
General Chemistry II, CHEM 110B, 4 credits or Environmental Chemistry, CHEM 282, 3 credits

Introduction to Mechanics and Electromagnetism, PHYS 131, 5 credits
Or Introductory Kinematics and Mechanics, PHYS 150, 4 credits
Precalculus, MATH 85, 4 credits
or any higher level math course such as MATH 141.
Historical Context Course
Evolutionary Biology, BIOL 445, 4 credits
or Global Change and Earth History, ES 230, 4 credits

## GUIDELINES FOR A MINOR IN ENVIRONMENTAL SCIENCE

The minor in environmental science is designed for students from all academic disciplines who wish to be informed about the environment and environmental issues. To be awarded a minor in environmental science from Whittier College, students must complete the following courses.
Introduction to Environmental Science, ENVS 100, 4 credits
Life Science, BIOL 195
Earth Systems: The Solid Earth, ES 100, 4 credits
Or Earthquakes, Volcanoes, and Other Geohazards, ES 110, 4 credits
Or Earth Surface Environments, ES 105, 4 credits
Evolutionary Biology, BIOL 445, 4 credits
Or Global Change and Earth History, ES 230, 4 credits
Upper-division ( 300 level or higher) coursework in the science division, 3 credits.

NOTE: All laboratory courses require a laboratory fee.

## ENVIRONMENTAL SCIENCE (ENVS)

## 50 Environmental Science Colloquium

Weekly colloquia from scientists engaged in study of the environment as well as various stakeholders in environmental issues. Students interested in environmental science and/or environmental issues are encouraged to attend colloquia. Seniors will normally give a colloquium presentation as part of the paper in the major requirement. 1 credit. May be repeated for credit.

## 100 Introduction to Environmental Science

An introduction to the field of environmental science, examined from multiple perspectives: biology, earth sciences, chemistry, and physics. 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. 4 credits.

190, 290, 390, 490 Selected Topics in Environmental Science
Variable credits. Permission. May be repeated for credit.

295, 395, 495 Independent Studies
Credit and time arranged. Permission. May be repeated for credit.

## EARTH SCIENCES (ES)

## 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. 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. Lectures and laboratory. One semester, 4 credits.

## 110 Earthquakes, Volcanoes \& Other Geohazards

Earthquakes and Volcanoes are awe-inspiring manifestations of the forces that shape our planet. The study of these phenomena enhances our appreciation for their beauty and enables us to minimize their destructiveness. Through the investigation of these and other geohazards, we will examine the current state of knowledge concerning the origin and structure of our planet and learn to see the Earth as a dynamic and ever-changing system. 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. Instructor's permission required. 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. 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: 100 or 110. 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. Prerequisite: any introductory lab science class. One semester, 4 credits.

## 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: 105 and either 100 or 110 . 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: 105 and either 100 or 110 . 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: 105 and either 100 or 110 . 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: 105 and either 100 or 110 . 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. Lectures and laboratory. Prerequisite: 105 and either 100 or 110. One semester, 4 credits.

190, 290, 390, 490* Selected Topics in Earth Science
Variable credits. Permission. May be repeated for credit.

## 295, 395, 495 Independent Studies

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

[^2]Marie-Magdeleine Chirol (Modern Languages, French)<br>Paula Radisich (Art History)<br>Elizabeth Sage (History)<br>Andy Wallis (Modern Languages, French)

## REQUIREMENTS FOR AN INTERDISCIPLINARY MINOR IN FRENCH CULTURAL STUDIES

6 courses / 18 credits are required, including:
2 courses in Art History ( 6 credits)
ART 366. Art of the Eighteenth-Century
ART 368. Age of Impressionism
ART 369. Age of Dada \& Surrealism

2 courses in History (6 credits)
HIST 364 Modern France
HIST 363 Socialism and Revolution in Europe
HIST 362 The European City
2 courses in French (6-7 credits)
a. One language course numbered between Fren 120 and Fren 315 (this does not include the courses listed below). Students need to take the placement test if they have prior knowledge of French.
b. One literature, culture or cinema class taught in English or in French. Courses taught in French should be numbered between Fren 325 and Fren 490 and are listed under Dept. of Modern Languages and Literatures.

Courses taught in English:
FREN 115 Introduction to Contemporary France
FREN 126 Francophone Culture and Civilization
FREN 173 French Cinema
FREN 175 Women's Portraits/Portraits de Femmes
FREN 177 African Francophone Literature and Cinema
FREN 178 Pre and Post Revolutionary Child
FREN 181 Asian Francophone Literature

## Recommended

Study in France or a French-speaking country is recommended as a supplement to the interdisciplinary minor in French Cultural Studies. A maximum of three courses will be allowed to be transferred in from study abroad, one in each category.

## Jo

Marie-Magdeleine Chirol (Modern Languages)<br>Gustavo Geirola (Modern Languages)<br>Marilyn Gottschall (Religious Studies)<br>Wendy Furman-Adams (English Language and Literature), Coordinator<br>Caroline Heldman (Political Science)<br>Jennifer Holmes (Theatre)<br>sal johnston (Sociology)<br>Laura McEnaney (History)<br>Rebecca Overmyer-Velásquez (Sociology)<br>Paula Radisich (Art History)<br>Anne Sebanc (Child Development)<br>Cheryl Swift (Biology)<br>Michelle Switzer (Philosophy) experiences. The interdisciplinary approach leads students to a critical perspective and enables them to understand more fully the 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 upon 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 Gender and 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.

## REQUIREMENTS FOR A MINOR IN GENDER AND WOMEN'S STUDIES

18 credits of course work*, including
Required Course:
Feminist Social Theory, SOC 406, 3 credits OR
Feminist Philosophy, PHIL 385, 3 credits
Note: Although only one of the two courses is required, both may be taken for credit toward the minor in Gender and Women's Studies; both are therefore listed below under Upper Division Elective Courses.

At least two Introductory Courses:
Women and the Visual Arts, ART 207, 3 credits
The Role of Science in Defining Gender, INTD 220, 4 credits
Introduction to Human Development, CHDV 105, 3 credits
Philosophy of Love and Human Sexuality, PHIL 250, 3 credits
Women in American Politics, PLSC 205, 3 credits
Politics of Diversity in Latin America: Race, Religion, and Gender, PLSC 253, January, 4 credits

Women and Religion, REL 253, 3 credits
Social Movements, SOC 260, 3 credits

At least two Upper Division Courses:
Male and Female; the Anthropological Perspective, ANTH 327, 3 credits
Senior Seminar in Child Development, CHDV 497, 3 credits
Women in the Labor Force, ECON 355, 4 credits
Discourses of Desire: Representing Love \& Gender from Plato to Kundera, ENGL 381, 3 credits

Women's Portraits/Portraits de Femmes, FREN 175/475, 3 credits
Women and Gender in the United States, HIST 309, 3 credits
Women and Gender in Modern Europe, HIST 360, 3 credits
Feminist Philosophy, PHIL 385, 3 credits
Human Rights, PLSC 330, 3 credits
Psychology of Women, PSYC 364, 3 credits
Sociology of Gender, SOC 385, 3 credits
Feminist Social Theory, SOC 406, 3 credits
Women's Voices in the Hispanic World, SPAN 484, 3 credits
*Individual courses are not offered every year, but are offered in a rotation that will provide students the ability to complete 18 credits over the course of the four year BA.

Les Howard (Sociology)<br>David Iyam (Anthropology)<br>Joyce Kaufman (Political Science \& Whittier Scholars Program)<br>Paul Kjellberg (Philosophy)<br>Robert Marks (History)

$\tau$Be interdisciplinary Global and Cultural Studies (GCS) major and minor introduce students to the world of the $21^{\text {st }}$ century by encouraging them to explore contemporary problems and issues from a number of different perspectives and points of view. Within the major or minor students have the opportunity to use a comparative perspective to focus on a specific global region (e.g., Asia, Latin America, Europe), contemporary international issue (such as the environment or human rights), or cultures that exist within a range of regions or states.

Students in both the major and minor begin by taking a course on "globalization" that introduces them to this concept, which is a unifying theme for the major, and explores the concept from multiple points of view: historic, political, economic, sociological as well as its impact on particular countries and cultures. Because of the interdisciplinary approach, both the major and minor require students to approach their particular area of emphasis or concentration by selecting courses drawn from a range of disciplines. All students in the major will be required to study abroad for at least a semester in order to get first-hand knowledge of their area of concentration. There is a capstone seminar which allows students to share their culminating research project as well as their study-abroad experience.

## GUIDELINES FOR A MAJOR IN GLOBAL AND CULTURAL STUDIES

The Global and Cultural Studies (GCS) major will require a maximum of 39 credits, leaving opportunity for a complementary second major; many of the courses within the GCS major can also meet the requirements for the second major, as well as satisfy Liberal Education requirements.

1) All students must take the introductory course "Introduction to Globalization", GCS 100, (3 credits).
2) All students in the major must take two "stream" courses, preferably in the sophomore year, one introducing students to cultures (within countries) and the other introducing them to actors beyond the border of the nation. For the culture stream, the students must take Introduction to Cultural Anthropology, ANTH 210. For the actor stream, they can choose from Comparative Politics, PLSC 140, International Relations, PLSC 220, or Comparative Economic Systems, ECON 383. (6 credits)
3) Students will then choose their area of concentration within the major and will draw from an accepted list of courses that support that direction. They may chose from among the Cultural Studies concentration; the Institutions/Actors concentration; Issues concentration; or the Regional Studies concentration.
4) All students in the major will be required to have a methods class appropriate to their particular area of concentration. Students in the Cultural Studies concentration will be required to take Field Research Methods: Crossing Cultural Boundaries, ANTH/SOC 311. Students in the Institutions/Actors and Issues concentrations may choose from among Historical Methods, HIST 380, Econometrics, ECON 304, Political Methodology, PLSC 280, or Approaches to Social Research, SOC/SOWK 310. Students in the Regional Studies concentration may choose any one of the methods classes listed above. The methods class should be completed sophomore year to prepare students to study abroad in the junior year. (3 credits)
5) We anticipate that all students in the major will study off-campus their junior year ( 12 credits), either abroad in their region of concentration or in some other location, foreign or domestic, that would allow them to develop their area of concentration more deeply. Given that knowledge of other languages is an important bridge to the understanding of other countries, cultures, and customs, and that learning another language is essential preparation for participation in the global order, GCS majors are encouraged to study Chinese, Japanese, French or Spanish at least through the Intermediate level (221 or above). Preparation in more advanced courses is highly recommended for students planning to study abroad in Chinese, French or Spanish speaking countries. Coursework in a language not taught at Whittier College should be approved by the GCS Faculty Council in consultation with the Chair of The Department of Modern Languages.
6) Students will be required to take 12 credits of electives for their concentration, 6 of which may be taken while studying abroad. Each area of concentration has a set of approved courses that can be used to meet the elective requirement (below). NOTE: The list of approved courses may change each year with the consent of the standing faculty advisory committee for the major, as new courses are added to or dropped from the curriculum.
7) Seniors in the major will be required to take a capstone seminar course, GCS 499, during which they will complete a major research paper ( 3 credits). This is an integrative seminar that brings all the students together to share their studyabroad experience and peer review their research papers., 3 credits
The electives for the two streams and the three concentrations are described and the approved courses are listed below. Note that particular courses might not be offered each year and new courses may be added to the list as they enter the curriculum. Students in the GCS major can petition the faculty members associated with the major for inclusion or substitution of a particular class.

## 1.CULTURE STREAM: 12 UNITS

Students must take four courses, one course from the Peoples of the World list and three courses of the other four lists in the Culture Stream area.

## Peoples of the World

ANTH 211 Peoples and Cultures of Asia, 3 credits
ANTH 212 Peoples and Cultures of Africa, 3 credits
ANTH 213 Peoples and Cultures of Native America, 3 credits
ANTH 214 Peoples and Cultures of Latin America, 3 credits

## Economic and Political Institutions

PLSC 252 Latin American Politics, 3 credits
PLSC 335 International Relations of Latin America, 3 credits
PLSC 348 East Asian Political Systems, 3 credits
PLSC 349 Southeast Asian Politics, 3 credits
PLSC 356 Middle Eastern Political Systems, 3 credits
PLSC 358 African Political Systems, 3 credits

## Arts

ANTH 321 Expressive Arts of Africa, 3 credits
CHIN 100 A Taste of China, 1 credit
CHIN30/330 Chinese Theater, 3 credits
CHIN150/350 Chinese Cinema, 3 credits
MUS 74 Music of Latin America, 3 credits
MUS 75 Music of Africa, 3 credits
FREN 477 Francoafrican Literature \& Cinema, 3 credits
SPAN 440 Latin American Theater, 3 credits
SPAN 480 Major Hispanic Authors, 3 credits
SPAN 483 Cinema in Latin America, 3 credits
SPAN 484 Women's Voices in the Hispanic World, 3 credits

## Philosophy/Religion

PHIL 300 Early Chinese Philosophy, 3 credits
PHIL 302 Development of Buddhist Philosophical Thought, 3 credits
REL 201 Monotheisms, 3 credits
REL 202 Religions of Asia, 3 credits

REL 251 Monks, Nuns and Ascetics
REL 253 Women and Religion, 3 credits
REL 313 Heroes, Gods, Gurus: Introduction to the Literatures of India, 3 credits

REL 330 Buddha and Buddhism, 3 credits
REL 331 Islam, 3 credits
REL 349 Religious Fundamentalisms, 3 credits
REL 352 Pilgrimage, 3 credits

## Comparative Systems

ANTH 327 Male and Female: the Anthropological Perspective, 3 credits
ANTH 374 Cultural Contexts of Childhood, 3 credits
ECON 383 Comparative Economic Systems, 3 credits
HIST 348 US-Mexico Border Studies, 3 credits
INTD 225, 226 or REL 235, 236 Arabs and Muslims, 6 credits
REL 342 Sound and the Religious Experience, 3 credits
REL 348 Ritual Studies, 3 credits
SOC/ANTH 387 Life in Minority Environment, 3 credits
SPAN 485 Subaltern Voices, Diversity and Marginalization, 3 credits

## 2.INSTITUTIONS/ISSUES STREAM

## 2a.Institutions/Actor Concentration 12 credits

Students must take one class from the Issues Concentration list under 2b below; and three classes from lists for two different regions and three different subject categories (historical understanding; politics, economics and society; arts and cultural expression; and religion and philosophy) under 2c below.

## 2b.Issues Concentration: 12 credits

Students must choose four classes from the list under 2 b , no more than two in any one department.
Science and Math in Context courses or other policy-related courses offered on an occasional basis may be added or subtracted from this list at the discretion of the standing advisory committee for the major.

BIOL 379 Conservation Biology, 4 credits
ECON 330 Current Economic Problems, 4 credits

ECON 343 Environmental and Natural Resource Economics, 4 credits
INTD 216/SOC 358 Population Problems and Policy, 4 credits
INTD 219 Health and Human Diseases, 4 credits
INTD 223 Environmental Issues, 4 credits
PLSC 228 International Organizations, 4 credits
PLSC 330 Human Rights, 4 credits
PLSC 339 Military Strategy and Arms Control , 4 credits
PLSC 340 Political Violence, 4 credits
SOC 357 Sociology of Development: Third World Studies, 4 credits

2c. Regional Concentration: 12 credits
Students must choose a region of concentration from among the following areas: Asia, Latin America, or Europe. Students must take their study abroad in their region of concentration. Students must choose three elective classes for their region from three different subject categories under 2c (historical understanding; politics, economics and society; arts and cultural expression; or religion and philosophy), plus one additional class from any region and any subject category under 2c.

## ASIA

Historical Understanding
HIST 220 East Asian Civilizations, 3 credits
HIST 321 Imperial China, 3 credits
HIST 323 Modern China, 3 credits
HIST 329 Modern Japan, 3 credits

Politics, Economics and Society
ANTH 211 Peoples and Cultures of Asia, 3 credits
CHIN 325 Culture and Civilization, 3 credits
PLSC 348 East Asian Political Systems, 3 credits
PLSC 349 Southeast Asian Politics, 3 credits

Arts and Cultural Expression
CHIN 100 A Taste of China, 1 credit
CHIN 130/330 Chinese Theater, 3 credits
CHIN 150/350 Chinese Cinema, 3 credits
ENGL 383 Asian Literature, 3 credits

Religion and Philosophy
PHIL 300 Early Chinese Philosophy, 3 credits
PHIL 301 Development of Buddhist Philosophical Thought, 3 credits
REL 202 Religions of Asia, 3 credits
REL 313 Heroes, Gods and Gurus: Introduction to the Literatures of India, 3 credits

REL 330 The Buddha and Buddhism, 3 credits
REL 331 Islam, 3 credits
REL 333 Hindu Religion and Culture, 3 credits

## LATIN AMERICA ${ }^{1}$

Historical Understanding
HIST 242 Introduction to Colonial Latin America, 3 credits
HIST 246 Introduction to Modern Latin America, 3 credits
HIST 347 Modern Mexico, 3 credits
HIST 348 US-Mexico Border Studies, 3 credits

Politics, Economics and Society
ANTH 214 Peoples and Cultures of Latin America, 3 credits
PLSC 335 International Relations of Latin America, 3 credits
PLSC 252 Latin American Politics, 3 credits
PLSC 253 Politics of Diversity in Latin America: Race, Religion \& Gender, 3 credits

SOC 357 Sociology of Development: Third World Studies, 3 credits

Arts and Cultural Expression
MUS 74 Music of Latin America, 3 credits
SPAN 356 Intro to Latin American/Peninsular Theater II, 3 credits
SPAN 420 New World and Spanish Colonial Literatures, 3 credits
SPAN 440 Latin American Theater, 3 credits
SPAN 450 Latin American Literature from Independence to Modernism, 3 credits
SPAN 470 Latin American Voices: The 20 ${ }^{\text {th }}$ Century, 3 credits
SPAN $480 \quad$ Major Hispanic Authors, 3 credits
SPAN 481 Revisiting the Canon in Peninsular and Latin American Literature, 3 credits

1 Note: for both this category and Europe, in many cases the French and Spanish classes are offered at BOTH the 100- and 3-400-levels.

SPAN 482 Literary Criticism and the Essay Tradition, 3 credits
SPAN 483 Cinema in Spain and/or Latin America, 3 credits
SPAN 484 Women's Voices in the Hispanic World
SPAN 485 Subaltern Voices, Diversity and Marginalization

Religion and Philosophy
REL 350 Latin American Liberation Theologies, 3 credits

## EUROPE

Historical Understanding
HIST 363 Socialism and Revolution in Modern Europe, 3 credits
HIST 364 Modern France, 1789 to Present, 3 credits
HIST 365 Germany Since 1870, 3 credits

Politics, Economics and Society
PLSC 245 From Russia With Feeling, 4 credits
PLSC 341 Western European Political Systems, 3 credits
PLSC 346 Russian and East European Politics, 3 credits

## Arts and Cultural Expression

ENGL 320 Literature of Medieval Europe, 3 credits
ENGL 321 British Literature, 700-1500, 3 credits
ENGL 323 Dante, 3 credits
ENGL 324 Chaucer, 3 credits
ENGL 325 Literature of the English Renaissance, 3 credits
ENGL/THEA 328 Shakespeare, 3 credits
ENGL 329 Milton, 3 credits
ENGL 330 British Literature, 1640-1789, 3 credits
ENGL $33219^{\text {th }}$ Century English Novel, 3 credits
ENGL 336 The European Novel, 3 credits
ENGL 352 The Modern British Novel, 3 credits
ENGL 354 Contemporary British Literature, 3 credits
FREN 325 French Culture and Civilization, 3 credits
FREN 355,356 Introduction to French Literature I, II, 3,3 credits
FREN 432 Heroes and Heroines, 3 credits
FREN 435 History of Modern Novel, 3 credits

FREN 453 Poetic perspectives, 3 credits
FREN $465 \quad 20^{\text {th }}$ Century Theater, 3 credits
FREN 469 Nouveau Roman/Nouveau Theater, 3 credits
FREN 473 French Cinema, 3 credits
FREN 475 Women's Portraits/Portraits de femmes, 3 credits
FREN 476 Performance in France, 3 credits
FREN 478 Pre and Post Revolutionary Child, 3 credits
FREN 480 Love and Life until the Revolution, 3 credits
SPAN 355,356 Intro to Latin American/Peninsular Literature I, II, 3, 3 credits
SPAN 430 Spanish Peninsular Theater, 3 credits
SPAN 460 Spanish Voices: The $20^{\text {th }}$ Century, 3 credits

Religion and Philosophy
PHIL 315 Modern Philosophy, 3 credits
PHIL $317 \quad 19^{\text {th }}$ Century Philosophy, 3 credits
REL 221 History of Christianity, 3 credits
REL 359 Religion and Colonialism, 3 credits

## GUIDELINES FOR A MINOR IN GLOBAL AND CULTURAL STUDIES

The minor in GCS will include 21 units of the following subset of courses from the major:

1. Introduction to Globalization, GCS 100, 3 units
2. For the Cultural Studies Stream:

Introduction to Cultural Anthropology, ANTH 210 or

For the Institutions/Issues/Regional Stream:
Comparative Economic Systems, ECON 383,
Comparative Politics, PLSC 140, or
International Relations, PLSC 220, 3 units
3. For the Cultural Studies Stream:

Field Research Methods-Crossing Cultural Boundaries.
ANTH/SOC 311,
or

For the Institutions/Issues/Regional Stream:
Historical Methods, HIST 380,
Econometrics, ECON 305,
Political Methodology, PLSC 280 or
Approaches to Social Research, SOC/SOWK 310, 3 units
4 Three electives from distinct subject areas but not necessarily distinct regions within either stream. (See lists $1,2 \mathrm{a}, 2 \mathrm{~b}, 2 \mathrm{c}$ above for approved courses.) Two of these electives may be taken abroad in the junior year, 9 units.
5. The senior seminar, GCS 499, 3 units

## COURSE DESCRIPTIONS (GCS)

## 100 Introduction to Globalization

Using the general theme of "globalization" as the organizing principle, the course will introduce students to the players (i.e. cultures, states, other actors such as NGOs and international organization, etc.) that are affected by, and in turn affect, globalization, how they make decisions and who is affected by those decisions, and the interaction between and among these various actors. The course will include the study of a number of specific topics and cases, chosen each semester to allow exploration of globalization issues from a variety of disciplinary perspectives. Faculty members from various disciplines will participate in the course by providing relevant readings and as guest lecturers. Visiting scholars from outside the College will be invited to participate as well. One semester, 3 credits.

190, 290, 390, 490* Selected Topics in Global and Cultural Studies
Variable credits. Permission. May be repeated for credit.
295, 395, 495 Independent Studies
Credit and time arranged. Permission. May be repeated for credit.

## 499 Senior Seminar

Permission. One Semester, 3 credits.
*Not offered every year.

Robert Marks, Richard and Billie Deihl Professor of History<br>Laura McEnaney, Chair, Nadine Austin Wood Chair of American History<br>José Orozco<br>Susanah Shaw-Romney<br>Elizabeth Sage<br>David Sartorius

cDe Department of History offers a curriculum that is global in its approach and integral to a liberal arts education. A history major enables us to understand human beings and institutions around the world through the study of the human past. It encourages us to understand ourselves and our multiple communities through comparison with cultures of other times and places. In a world that is increasingly interconnected, the study of history is a particularly apt way for us to understand both how the world we live in came to be and our 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, the course sequence begins in the freshman year with an "Introduction to World History" and ends with a capstone seminar. Three courses in one world area offer depth, and one course in three other world areas contributes breadth of knowledge about the world.
History 101 (Introduction to World History) and 200-level courses serve as the foundational prerequisites for the 300 -level courses. Students planning a History major should take History and Theory in the sophomore year, and Historical Methods in the junior year.
To help prepare students for the world of work or for graduate school, the History Department's curriculum offers two additional opportunities. Preceptorships (History 60 and 61 ) offer a special opportunity for junior and senior History majors to work with Whittier faculty or teachers off campus (local grade or high schools) as teaching assistants. 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 in a variety of educational or other settings, including museums, libraries, law offices, electoral politics, or non-profit organizations.

## 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 1865, HIST 206, 3 credits
The U.S. Since 1865, HIST 207, 3 credits
One additional 200-level course, 3 credits
II. Theory and Methods Seminars (three courses, 7 credits)

History and Theory, HIST 280, 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

IV Depth
Three 300-level courses in one world area (Asia, Europe, Latin America, United States) 9 credits

## III. Breadth

One course in three world areas (Africa, Asia, Europe, Latin America, or United States) 9 credits, 200 or 300 level, cannot be same as depth area
V. Capstone Seminar, HIST 480, 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 280 or 380, and at least one course in two of the following world areas: Africa; Asia; Europe; Latin America; United States.

## FOUNDATION COURSES

## 101 Introduction to World History

A team-taught survey of world history since the 15 th century. Serves as a basic introduction to the discipline of history and to the history major. Familiarizes students with a global, non-Eurocentric approach to history. One semester, 3 credits.

## 201 Western Civilization since the 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.

## 206 United States to 1865

Origins and early national development of the United States to the Civil War; development of colonial peoples and communities, 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 and wars, domestic politics, and social trends and movements. One semester, 3 credits.

## 220 East Asian Civilizations

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

## 230 Introduction to African History

A history of sub-Saharan Africa from the fifteenth century through the present, exploring the trans-Atlantic slave trade, European colonialism, and post-colonial developments. One semester, 3 credits.

## 242 Introduction to Colonial Latin America

 Latin America from pre-Columbian times to the 1820 s; topical treatment of historical developments and trends basic to understanding the colonial period of Latin American history. One semester, 3 credits.
## 246 Introduction to Modern Latin America

Topical treatment of political, cultural, and economic developments in Latin America that are basic to understanding the modern period of Latin American history (1820s-1990s). One semester, 3 credits.

## 247 Introduction to Modern Central America

Topical treatment of political, cultural, and economic developments in Central America that are basic to understanding the modern history (1820s-1990s) of Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama. One semester, 3 credits.

## WORLD AREAS

## Asia

## 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. One semester, 3 credits.

## 323* Modern China

History of modern China, 1600 to the present; the impact of imperialism on traditional Chinese society, the Taiping Revolution of the mid-19th Century, revolutionary development in the early 20th Century; history of the Chinese Communist movement from 1921 to 1949; and history of the People's Republic of China. Prerequisite: 101 or 220. 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 an agrarian to an industrial 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.

## Europe

360* Women and Gender in Modern Europe An exploration of the lived realities of women's lives 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, 201, or instructor permission. One semester, 3 credits.

## 362* The European City

Introduces students to the development and changing character of European cities in the modern era. Discussion of how and why cities were built and rebuilt, how they were represented and understood as places of danger and possibility, how people lived in and moved through them, how different social groups seized access to the urban environment, and how cities were understood as causing social problems and changing social behaviors. Prerequisite: 101, 201, or instructor permission. One semester, 3 credits.

## 363* Socialism and Revolution in Modern Europe

Explores the relationship between socialism and revolution. Begins with the radical idealism of the French Revolution, continues with the utopian socialists of the 1830s and 1840 s , and then follows socialism and revolution in Europe through the development of Marxism and working-class political organizations, the Paris Commune of 1871, the Russian Revolution of 1917, and the events of May 1968. Prerequisite: 101, 201, or instructor permission. One semester, 3 credits.

## 364* Modern France, 1789-present

Examines French history from the French Revolution to the present. Themes include the Revolution, the rise of republicanism, the modernization of France's economy, the consequences of France's role in the "scramble for Africa," Vichy and its legacy, as well as contemporary questions of nationalism and identity. Prerequisite: 101, 201, or instructor permission. One semester, 3 credits.

## 365* Germany Since 1870

Modern Germany was born with the unification 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 in 1989. Prerequisite: 101, 201, or instructor permission. One semester, 3 credits.

## Latin America

342* Gender and Sexuality in Latin American History
An exploration of sexual difference and sexuality among women and men in Latin American history. Focusing on the relationship between the family and the state, the course will investigate such themes as patriarchy and paternalism, gendered forms of labor and political organization, feminism, and machismo and masculinity. Prerequisite: 101, 242 , or 246 . One semester, 3 credits.

## 346* History of the Caribbean

An examination of the region's history from the period of European exploration to the present. Thematic emphases on the attempts by Caribbean societies to forge autonomous political and economic units and the struggles of Caribbean peoples to come to terms with the ethnic and racial diversity that characterizes the island populations. Through these prisms, the course will explore such issues as colonialism, monoculture, slavery, emancipation, national independence movements, and tourism. Prerequisite: 101, 242 , or 246 . One semester, 3 credits.

## 347* Modern Mexico

The history of Modern Mexico from the 1880s to the 1990s. Topical focus on revolution, state formation, modernization, identity, immigration and cultural formations and practices. Prerequisite: 101,246 , or instructor permission. One semester, 3 credits.

## 348* U.S.-Mexico Border Studies

The history of the US-Mexican border from its creation in the mid-19th century to the beginning of the 21st century. Special focus on how the creation of a border creates political, social, and economic spaces that promote cultural formations and human endeavors that are hybrid amalgamations with many (often-conflicting) sources of inspiration. Prerequisite: 101, 246, or instructor permission. One semester, 3 credits.

## 349* African American Diasporas

This course will explore the history of the connections that Afro-Latin Americans and Afro-North Americans have created in the nineteenth and twentieth centuries. Ultimately, the course will interrogate the historical
possibilities and limitations of conceiving of African Americans as a hemispheric, transnational social group. Prerequisite: 101, 242 , or 246 . One semester, 3 credits.

## United States

## 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 . One semester, 3 credits.

## 306* Recent United States

Traces the history of the United States from World War II to the present. Topics include the emergence of the Cold War, social and cultural trends in the fifties and sixties, liberation movements of the sixties, Vietnam, and the rise of modern conservatism. Prerequisite: 207 or instructor permission. One semester, 3 credits.

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

 Historical investigation of women's daily experiences and of ideas of femininity and masculinity in the U.S. with a focus on motherhood, labor, sexuality, and social movements. Prerequisite: 206, 207 or instructor permission. One semester, 3 credits.
## 316* Urban Encounters: The City in US History

The history of U.S. cities and suburbs from the late nineteenth century to the present. Topics include housing, public policy, transportation, gender, race and ethnic relations in the city, and urban popular cultures. Field trips included. Prerequisite: 207 or instructor permission. One semester, 3 credits.

## Theory and Methods Seminars

## 50 Internship

Professionally supervised work or service learning at sites chosen to further the student's history major and career choices. May be repeated only once for credit. Permission. One semester, 1-3 credits.

## 60 Preceptorship in World History

A one-semester course taken in the junior or senior year designed to give a student experience as a teaching assistant. Students can work with Whittier faculty or off-campus
teachers who offer world history courses. Other teaching or tutoring experiences may count as a preceptorship. Intended for those students who want to teach secondary school or to enter a graduate program in history. Prerequisite: 101 and Junior standing. Permission. One semester, 1 credit.

## 61 Preceptorship in U.S. History

A one-semester course taken in the junior or senior year designed to give a student experience as a teaching assistant. Students can work with Whittier faculty or off-campus teachers who offer U.S. history courses. Other teaching or tutoring experiences may count as a preceptorship. Intended for those students who want to teach secondary school or to enter a graduate program in history. Prerequisite: 206 or 207 and Junior standing. Permission. One semester, 1 credit.

## 280 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. Prerequisite: 101 or any other 200-level course. One semester, 3 credits.

## 380 Historical Methods

Introduction to methods of historical research and writing. Students will produce a major research paper. For those pursuing a history major and others interested in developing basic skills. Prerequisite: 280. 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: 380. One semester, 3 credits.

## 190, 290, 390, 490* Selected Topics in

 HistoryVariable credits. Permission. May be repeated for credit.

[^3]
## COURSE DESCRIPTIONS (INTD)

## 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, l 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 Freshmen and Sophomores

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 for Juniors and Seniors

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; peer-counseling; 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.

## 16 Peer Education Development

This course is designed for tutors working at the Center for Academic Success. Topics covered will include Interculturalism, English as a Second Language, Disability Services, Learning Styles, Group Dynamics,

Communication Skills, Problem-Solving Strategies, etc. One semester, 1 credit.

## 33* Teaching Composition

This course is designed to provide training in the techniques of teaching secondary and college-level 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.
## 55* Radio Hosting

This course will be held exclusively at Whittier College Radio Station. Each week students will have a chance to perform on the microphone and receive constructive critiques on each performance. To mirror the review process encountered by hosts at actual radio stations, each performance will be "air-checked" and analyzed. Each session will focus on different areas and genres in radio. Prerequisite: INTD 053 . One semester, 1 credit.

## 60 Strategies for Academic Enrichment

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. (for more information see the College Writing Program, Page 78)
## 95 Mentor Seminar

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

## 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. (for more information see the College Writing Program, Page 76)

## $101^{*}, 102$ 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.

## 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.
## 125* American Intellectual and Cultural History I

This course examines the early colonial forms of religious and political idealism from the Enlightenment revolutionary rationalism and its reactions (including rural and frontier revivalism), to the increasing American regionalism and the role of slavery in the formation of American ideas through the Civil War. Analyzes the shaping significance of African-American spirituals or "sorrow songs". One semester, 3 credits.

## 126* American Intellectual and Cultural History II

Continuation of INTD 125. Exlpores the materialism of the "Guilded Age", the emergence of Jazz and Blues, the rise of Feminist thought, pragmatism, and the ways in which reconstruction creates and continues intellectual divides. As the course moves to the 20th century the course looks at various forms of rethinking American ideas, the intellectual foundations for and cultural ethos of the 60's, and the increasing diversity of the ideas influenced by immigration. Prerequisites: INTD 125. 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.

## 215 Special Topics in Science/Math Contexts

## 216* Population Problems and Policy

This course provides an opportunity to develop quantitative skills in the analysis of population processes and in the formulation of policies attempting to intervene in these processes or to take them into consideration within other public and private sector policy arenas. The course will be of particular relevance to those interested in actuarial science, in environmental sustainability, in social policy, and in urban and other governmental and service planning processes. We examine the necessity, techniques, and precariousness of demographic projections in such arenas. The course will assume prior completion of the Quantitative Reasoning
(QR) and Introductory Laboratory Science (ILS) requirements, or their equivalence for WSP and transfer students. Crosslisted with Sociology 358. One semester, 4 credits.

## 217* Search for Extraterrestrial Life

Does life exist elsewhere in the universe? This course examines this question in detail, from the possibility of fossil bacteria existing on Mars to the possibility of advanced races colonizing the galaxy. Topics studied include: the detection of planets around other stars, the evolution of life and intelligence on Earth, the search for life in our Solar System, radio astronomical searches for extraterrestrial intelligence, and UFO and alien abduction phenomena. One semester, 4 credits.

## 218* Nuclear Technology

One semester, 4 credits.

## 219* Health and Human Diseases

The course examines AIDS from a biological, sociological, and economic viewpoint. The biology focuses on the cause of AIDS, the impact of AIDS on the human body, and the current treatments for the disease. The course then focuses on the factors that have made AIDS such a widespread disease in Africa and the economic and sociologic impact of the disease in various countries in Africa. Finally the course explores other human diseases such as cancer, heart disease, and other diseases of interest to students. One semester, 4 credits.

## 220* Role Of Science In Defining Gender

This course discusses both the scientific theory and the cultural history that underlie the relationship between science and gender. Few cultural historians would argue that gender has not played a role in determining who becomes a scientist and therefore "speaks for science". Few scientists would disagree with the idea that an individual's role in reproduction, one aspect of gender, is related to the behavior, form and evolutionary constraints that define an individual. However, few historians and even fewer scientists have examined this circular relationship between the practice of science and the definition of gender-that is what this course seeks to do in part using feminist theory as a series of lenses through which the relationship between gender and science can be viewed. One semester, 4 credits.

## 221* Global Climate Change

One Semester, 4 credits.

## 222 I Want a New Drug

This class investigates the impact of pharmaceutical medicines on society. Starting with a history of Western, Chinese, Ancient and Aztec medicines, we discover that all cultures use drugs as a method of treating illness. In order to understand the effects of drugs on illness, we investigate the science behind health and illness and how drugs specifically interact with the human body. We will also investigate the discovery, development, testing and marketing of pharmaceutical medicines, including discussions on animal testing, human clinical trials, the genetic revolution and the economics of medicine. We will conclude the course with a discussion on the science and ethics of the future of medicine through an investigation of cloning, genetic engineering, genetic testing and gene therapy. One semester, 4 credits.

## 223* Environmental Issues

An examination of some of the main areas of environmental science, including human population, land and its use, food, water, energy, mineral resources, pollution, and global change. One semester, 4 credits.

## 224* Artificial Reproductive Technology

 This course investigates how normal human reproduction occurs and the intervention by modern medical techniques in the production of offspring. Terminology such as artificial insemination, in vitro fertilization, gamete intra-fallopian transfer, intra-cytoplasmic sperm injection, and surrogacy become meaningful on many levels. Basic mathematics (fractions) are used to predict expected offspring, while one type of statisics( ChiSquare) is applied to determine if the observed distribution of offspring is within expected limits; and algebraic expansions of equations like $\mathrm{p} 2+\mathrm{q} 2=1$ help solve problems associated with changes in the gene pool. Guest lecturers have presented bioethical considerations, and have examined the effect that artificial reproductive technologies have had on the growth and sociology of populations. One semester, 4 credits.
## 225, 226 Arabs and Muslims

The course traces the rise of Islam from Muhammad to the Ottoman Empire, along with analyses of the contemporary scene in the Arab World. Two semesters, 3 credits each.

## 227* Math Models and Computer Simulations

In this course, you will learn some of the modern ways in which researchers use mathematics and computers to investigate realworld phenomena such as population growth, spread of diseases, and oil flow through porous rock. You will gain hands-on experience by applying some of these techniques to explore specific examples chosen from several different fields of study. One semester, 4 credits.

## 228* Technological and Societal Change

Sir Isaac Newton once said: "If I have seen so far, it is not because of my greatness, but because I have stood on the shoulders of giants." In this course, we will view the landscape of technological development from the shoulders of Georg Ohm, Michael Faraday, Albert Einstein and Neils Bohr, and will discuss the historical development of this landscape as it has been modified by (and in its turn influenced) changes in society. One semester, 4 credits.

## 229* Urban Rivers of the Los Angeles Basin

This class is concerned with the three rivers that drain the greater Los Angeles area: the Los Angeles River, the San Gabriel River, and the Santa Ana River. Most visitors and residents alike don't realize that there is a Los Angeles River and few understand the connection between the San Gabriel, Santa Ana, and Los Angeles Rivers. Yet, the Los Angeles River determined the current location of downtown L.A., the San Gabriel River provides much of the water used by the San Gabriel Valley, and the Santa Ana River has a bike path along its length. The class will address the question of the origins of L.A.'s current ambiguous feelings about its rivers by examining the underlying geomorphologic functions of rivers, and by examining the history of the Los Angeles River specifically. One semester, 4 credits.

## 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.

## 278* Culture and Medicine

This course focuses on the role of culture in medicine. Topics include the cultural attitudes of physicians, cultural impacts on the treatment of patients and patient expectations. One semester, 3 credits.

## 311* Russia: Politics and Society

One semester, 3 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.

190, 290, 390, 490* Selected Topics Variable credits. Permission. May be repeated for credit under a different subject.

## 295, 395, 495 Independent Studies

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

## NATURAL SCIENCE (NASC)

## 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 and will be taking the CSET. Prerequisite: CHDV 105 or concurrent enrollment. One semester, 2 credits.
*Not offered every year.

Sherry Calvert<br>Hilmi M. Ibrahim, Chair<br>Patricia Van Oosbree

beestudy of Kinesiology, as human movement, and Leisure Science, 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 kinesiology and leisure science while emphasizing teaching/coaching, pre-athletic training or pre-physical therapy. The major can be completed without an emphasis as well.
The department offers activity courses in individual, dual, and team sports.

## GUIDELINES FOR A MAJOR IN KINESIOLOGY AND LEISURE SCIENCE

A minimum of 30 credits including the following core:
First Aid, KLS 125, 1 credit
Movement Anatomy, KLS 150, 3 credits
Biomechanics, KLS 311, 4 credits
Exercise Physiology, KLS 313, 4 credits
History and Philosophy, KLS 340, 3 credits
Motor Learning and Control, KLS 440, 4 credits
Seminar in Kinesiology and Leisure Science, KLS 489, 2 credits
Choice of one:
Sociology of Sport and Leisure, KLS 382, 3 credits
Psychology of Sport and Leisure, KLS 435, 3 credits

## GUIDELINES FOR A MINOR IN KINESIOLOGY

A minimum of 20 credits, including: 125, 150, 311, 313 and 440 , with 4 credits of advisor-approved electives.

## GUIDELINES FOR A MINOR IN LEISURE SCIENCE

A minimum of 18 credits, including: 125, 315, 360, 373, 92, and 221.
Two courses chosen from the following: 211, 212, 213, 222, 225, or 320.

## 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 $15,25,89,160,170,215,315,316,320,325,350,373,420$. For teaching credential requirements: See Education.
Recreation and Sport Management: Designed for those interested in serving in public or private agencies dealing with recreation and sport. The courses include the completion of the Departmental core as well as 12 credits selected from 92, 221, $315,360,373,382$, 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 KLS 420 and any 3 credit psychology elective. Students should also take paired courses PSYC 372 and SOWK 344; MATH 85, MATH 139A, or MATH 141A; and KLS 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.

COURSE DESCRIPTIONS (KLS)

## THEORY COURSES

## 125 First Aid

Principles of first aid and emergency accident management. May be repeated for credit. One semester, 1 credit.

## 130* Lifeguard Training

Provides the skills and knowledge necessary to maintain a safe aquatic environment. One semester, 1 credit.

## 150 Movement Anatomy

Basic anatomical principles concerned specifically with human performance analysis. One semester, 3 credits.

## 160 Individual Sports Teaching and Coaching

Teaching and coaching methodologies for individual sports commonly taught at the secondary school level, such as tennis, track and field, swimming, badminton, archery, and golf. One semester, 3 credits.

170 Team Sports Teaching and Coaching
Teaching and coaching methodologies for team sports commonly taught at the secondary school level, such as soccer, volleyball, basketball, softball/baseball, and touch football. One semester, 3 credits.

## 201* Fundamentals of Nutrition

An introduction to human nutrition: structure, function, sources of nutrients, and the recommended daily allowances. One semester, 3 credits.

## 211* Analysis of Football and Baseball

 Fundamentals and teaching methodology for football and baseball. One semester, 2 credits.212* Analysis of Aquatics and Track and Field
Fundamentals and teaching methodology for swimming, water polo, and track and field. One semester, 2 credits.

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 Leisure in Contemporary Society

 This course investigates the affect/effect relationship between leisure and the institutions of contemporary societies, western or otherwise. Attention is given to the challenges of the recent electronic revolution. January session, 4 credits.
## 225* Analysis of Racquet Sports

Fundamentals and teaching methodology for tennis, badminton, racquetball, and pickle ball. One semester, 3 credits.

## 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, 4 credits.

## 300A,B Human Physiology and Anatomy:

 Structure and Function of the Human Body. Lecture and laboratory.(Same as BIOL 300A,B) Two semesters, 4 credits each.

## 311 Biomechanics

Anatomical and mechanical principles relating to human motion. Lecture and laboratory. Prerequisite: 150. One semester, 4 credits.

## 313 Exercise Physiology

The effects of exercise and stress upon the various organic functions. Lectures and laboratory. Prerequisite: 150 . One semester, 4 credits.

## 315* Outdoor Recreation

Basic techniques and resources available for camping, hiking, backpacking, mountaineering, and water-related recreation activities. One semester, 3 credits.

## 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.

## 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.

325* Same as KLS 509
One semester, 3 credits.

## 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.

## 350* Adaptive Physical Education

Exercise and adaptations necessary for the needs of the physically and mentally challenged. Prerequisite: 150 . One semester, 2 credits.

## 360* Therapeutic Recreation

Principles and organization of recreational activities in varied therapeutic settings; field work included. One semester, 3 credits.

373 Sport and Recreational Management Administrative aspects of athletics, physical education, and recreation are studied and put into practice. One semester, 3 credits.

## 382* Sociology of Sport and Leisure

 Impact of culture on the rise of games and sports in human societies. One semester, 3 credits.
## 388* Sport, Play and Ritual

(Same as INTD 241) January session, 4 credits.

## 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.

## 410* Therapeutic Exercise

Covers general treatment management along with rehabilitation goals in a therapeutic setting. One semester, 3 credits.

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.

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.

## 489* Seminar In Kinesiology and Leisure Science

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 KLS. One semester, 2 credits.

## 509* Promoting Students' Health and Safety

An examination of the major laws, concepts, and principles related to student health and safety and a discussion of strategies that foster student health and contribute to a healthy learning environment. Topics include: impact of health on academic achievement, student behaviors which foster or compromise their health and safety; common chronic and communicable diseases; strategies for encouraging good nutrition; physiological and sociological effects of alcohol, narcotics, drugs, and tobacco. One semester, 1 credit.

## GENERAL COURSES

## 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.

## 15 Combatives

An introduction to the principles and techniques of the five basic forms of Tae Kwon Do Karate. One semester. 1 credit.

## 89 Field Work Experience in Secondary Education <br> One semester, l credit.

91 Intercollegiate Team Management Supervised work experience in the management of an athletic team. Permission. May be repeated for credit. One semester, 1 credit.

## 92 Field Work in Kinesiology and Leisure Science <br> Experience in college and private settings. Permission. May be repeated for credit. One semester, 1 credit.

190, 290, 390, 490* Selected Topics in KLS Variable credits. Permission. May be repeated for credit.

## 295, 395, 495 Independent Studies

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

## Kinesthetic Performance

Activity classes carry one credit per
semester, fulfill the kinesthetic performance requirement, and may be repeated for credit.
*Activity Classes
2 Aerobics
3 Advanced Aerobics
4 Pilates (same as THEA 4)
5 Yoga (same as THEA 5)
7 Self Defense for Women (R. A. D.)
8 Step Aerobics
9 Advanced Step Aerobics
10 Weight Training
11 Advanced Self-Defense for Women
15 Combatives
20 Pickleball
21 Badminton
22 Bowling
23 Golf
24 Racquetball
25 Swimming

## 26 Tennis

## 27 Dynamics of Running

30 Indoor Soccer
32 Basketball
34 Soccer
35 Softball
36 Volleyball
38 Bowling

## 41 Cheerleading

*Not all the activity classes listed are
offered each year.

## 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.
*Not offered every year.

# Fritz Smith (Mathematics), Associate Dean of Faculty and Coordinator of the Liberal Education Program 

## THE LIBERAL EDUCATION CURRICULUM

Statement of Educational Values and Objectives:

CheLiberal Education Program provides an academic framework for collaboration and transformation within the community that is Whittier College. Through the Liberal Education Program, Whittier College prepares students to solve problems and communicate ideas in an increasingly complex and interdependent world community. It does this through its emphasis on cultural perspectives and the importance of connections between different fields of knowledge. Both critical thinking (the development of the skills and methods necessary for systematic investigation -- i.e. the ability to define, analyze, and synthesize using a variety of methods and technologies) and the practical application of knowledge inform all elements of the program and are central to the transformation that distinguishes Whittier College graduates.

## LEARNING GOALS

I. Students should develop the ability to make connections across disciplines in order to understand the convergence and divergence of different fields of knowledge and to understand the nature of an academic community.
II. Students should develop an understanding of, and competency in, the use of signs and symbols to construct, create, perceive, and communicate meaning.
III. Students should develop the capacity to entertain multiple perspectives and interpretations.
IV. Students should develop an understanding of culture and the connections between themselves and others in relation to physical, historical, social, and global contexts.
V. Students should develop breadth, defined as familiarity with essential concepts in major fields, and depth, defined as knowledge of at least one field (usually achieved in the major).

## REQUIREMENTS FOR GRADUATION THROUGH THE LIBERAL EDUCATION PROGRAM

In order to graduate through the Liberal Education Program students must:

- Complete the requirements listed in the core framework below.
- Complete the requirements for a Major.
- Complete 120 units of coursework (Major courses, core courses and elective courses). Out of these 120 units, six units, from at least two departments, must come from each of the three Divisions (Natural Science, Social Science and Humanities/ Fine Arts). This will be referred to as the Breadth Requirement ( 18 credits).


## THE LIBERAL EDUCATION CORE REQUIREMENTS

The core requirements are contained in a framework of four elements

- Community
- Communication
- Cultural Perspectives
- Connections

The core requirements are as follows:
Community (12 credits)

1. Freshman Writing Seminar linked with another course (Fall, Freshman Year) (6 credits)
2. Two thematically-linked courses (Spring, Freshman Year) (6 credits)

Communication (9 credits)

1. Quantitative Reasoning (3 credits)
2. Writing Intensive Course ( 3 credits)
3. Creative and Performing Arts ( 2 credits)

The Creative and Performing Arts requirement may be satisfied by a single course of two or more units or by two courses of one unit each.
4. Senior Presentation (1 credit)

Cultural perspectives ( 12 credits)
One course each from four of the following six areas:

1. African
2. Asian
3. Latin American
4. North American
5. European
6. Crosscultural

Connections ( 10 credits)

1. Two Paired courses or a sequence of two team-taught courses ( 6 credits)
2. A course that integrates scientific and mathematical methods and ideas with analysis of cultural or societal issues. (4 credits)

Once a student has matriculated at Whittier College, course work taken at other institutions (except Whittier College Foreign Studies programs) cannot be used to satisfy the Liberal Education requirements.
Courses taken in a semester-length study-abroad program may be applied to the Liberal Education requirements, as specified in the catalog description of Whittier Foreign Study Programs. Courses from foreign study 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 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 and Performing 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.

Abi Fattahi, Chair<br>Sharad Keny<br>Greg Miller<br>Jeff Miller<br>Jeff Lutgen<br>R. Fritz Smith<br>Eric Sundberg

- athematics is one of the original liberal arts and serves as the foundation underlying much of modern science and engineering. It is a rigorous discipline, but one in which a creative mind can flourish and excel. Graduates 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 (quantitative reasoning) requirement can be satisfied by taking MATH 75, 85, 139A, 139B, 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

In addition to the Major in Mathematics, the department offers a Major in Mathematics with Teaching Credential Emphasis for students who plan to teach high school mathematics. Teaching Credential students should contact the Department of Education and Child Development for more information on obtaining an appropriate California teaching credential.
Students who plan to enter a graduate program in mathematics should take more than the minimum number of mathematics courses; these students should work closely with an advisor from the Department of Mathematics to choose appropriate additional mathematics courses.

Core courses for both options:
Calculus and Analytic Geometry I, MATH 141A or
Integrated Precalculus/Calculus, 139A,B, 4--7 credits
Calculus and Analytic Geometry II, MATH 141B, 4 credits
Calculus and Analytic Geometry III, MATH 241, 4 credits
Abstract Thinking, MATH 280, 3 credits
Linear Algebra, MATH 380, 3 credits
Senior Seminar, MATH 491A,B, 4 credits

## I. Major in Mathematics

In addition to the core courses, this option requires seven additional mathematics courses, five of which must be at the 300 level or higher. These seven courses must include at least one course from each of groups A, B, and C below. In addition, at least two of these seven courses must be on the list of Abstract Courses below.
A. Analysis and Geometry Courses (at least one)
Advanced Geometry, MATH 320, 3 credits
Complex Variables, MATH 344, 3 credits
Differential Equations I, MATH 345A, 3 credits
Differential Equations II, MATH 345B, 3 credits
Point Set Topology, MATH 360, 3 credits
Introduction to Analysis I, MATH 440A, 3 credits
Introduction to Analysis II, MATH 440B, 3 credits
B. Algebra and Discrete Mathematics Courses (at least one)
Discrete Mathematics, MATH 220, 3 credits
Number Theory, MATH 305, 3 credits
Modern Algebra I, MATH 480A, 3 credits
Modern Algebra II, MATH 480B, 3 credits
C. Applied Mathematics Courses (at least one)
Probability and Statistics, MATH 315,3 credits
Numerical Analysis, MATH 350, 3 credits
Mathematical Modeling, MATH 354,3 credits
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.

Two of the seven courses beyond the Core Courses must be on the following list of Abstract Courses.

Abstract Courses (at least two of the above must be from this list)
Advanced Geometry, MATH 320, 3 credits
Point Set Topology, MATH 360, 3 credits
Introduction to Analysis I, MATH 440A, 3 credits
Introduction to Analysis II, MATH 440B, 3 credits
Modern Algebra I, MATH 480A, 3 credits
Modern Algebra II, MATH 480B, 3 credits

## II. Major in Mathematics with Teaching Credential Emphasis

In addition to the core courses, this option requires the following eight courses:
Programming I, COSC 120, 3 credits
Discrete Mathematics, MATH 220, 3 credits
Number Theory, MATH 305, 3 credits
Probability and Statistics, MATH 315, 3 credits
Advanced Geometry, MATH 320, 3 credits
History of Mathematics, MATH 400, 3 credits
Introduction to Analysis I, MATH 440A, 3 credits
Modern Algebra I, MATH 480A, 3 credits

## GUIDELINES FOR A MINOR IN MATHEMATICS

A minor in mathematics requires 20--23 credits: MATH 139A,B or MATH 141A; MATH 141B; MATH 280; and 9 credits of upper-division Mathematics courses.

## COURSE DESCRIPTIONS (MATH)

## 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, 139A, 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, 139A 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 Calculus and Analytic Geometry I-II

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.

## 220* Discrete Mathematics

Sequences; recursion and recurrence relations; finite-state automata; elementary set theory; graphs and trees; elementary probability and combinatorics. One semester, 3 credits.

## 241 Calculus and Analytic Geometry III

Continuation of 141 A, B. 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: 141 B. One semester, 4 credits.

## 280 Abstract Thinking

Designed 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 systems, mathematical induction, algebraic structures. Prerequisite: 141A,B. One semester, 3 credits.

## 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; non-Euclidean geometries; finite geometries; isometries in the Euclidean plane. Prerequisite: 141B, 290. 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, 280. One semester, 3 credits.

## 380* Linear Algebra

Vector spaces, linear transformations, similarity, eigenvectors, diagonalization, quadratic forms. Prerequisites: 141B. One semester, 3 credits.

## 400* History of Mathematics

Selected topics in the development of mathematics will be discussed. A good background in mathematics is needed. Prerequisite: 141B. 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, 280. 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: 141B and 280. One semester, 3 credits each.

## 491 A,B 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. Fall 1 credit, January 3 credits.

## 190, 290, 390, 490* Selected Topics in Mathematics

Subject of current importance in mathematics. May be repeated for credit. Variable time and credit.

295, 395, 495 Independent Studies
Credit and time arranged. Permission. May be repeated for credit. Variable credit.

## COMPUTER SCIENCE COURSE DESCRIPTIONS (COSC)

## 120 Computer Science I

Introduction to computer programming in a high-level language such as $\mathrm{C}, \mathrm{C}++$ or Java, emphasizing structured programming techniques, procedural methods and simple user-defined data structures. One semester, 3 credits.

## 220 Computer Science II

Computer programming emphasizing data structures, algorithms, pointers and low-level interface. Prerequisite: 120. One semester, 3 credits.

190, 290, 390, 490 Selected Topics in Computer Science
Variable credits. Permission. May be repeated for credit.

## 295, 395, 495 Independent Studies

Credit and time arranged. Permission. May be repeated for credit.
*Not offered every year.

## Jeff Lutgen (Mathematics)

Charles R. Laine (Business Administration)

$\tau$he 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 postgraduate 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, 12-15 credits Abstract Thinking, MATH 280, 3 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: Macroeconomics, 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 491A,B, 4 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: Microeconomics, ECON 201, 3 credits
Introduction to Econometrics, ECON 305, 3 credits
Managerial Economics, ECON 365, 3 credits
Business Finance II, BSAD 411, 3 credits
Management Strategy and Policy, BSAD 489, 3 credits

# $1 \cap$ 

H. Rafael Chabrán<br>Marie-Madeleine Chirol<br>Gustavo Geirola<br>Doreen M. O'Connor-Gómez

Andrew Wallis, Chair

eanguage 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 Language Resource Center and media ready classrooms bring technology to the student, making the study of languages, literatures and cultures more interactive and effective. Instructors utilize the Internet as a tool to bring authentic, meaningful culture to their students and learning is enhanced through exercises to develop higher levels of skill in speaking, listening, reading and writing. Students and teachers have easy access to CD-ROM's, DVD's and can watch videos from around the world using the international VCR. Scanning with character recognition of multiple European and Asian languages is also available.
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 generally 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). Students must complete a paper-in-the-major, consisting of a 10 to 15 page paper in a seminar and in close consultation with their professor, during their last three semesters of their major.

## 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. 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 and 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 (or equivalent). 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. The paper-in-the-major requirement is met in courses at the 400 level, which characteristically require significant formal writing assignments as well as a capstone project that demonstrates the student's command of the material and methods, as well as his/ her ability to communicate these skillfully in writing. Also highly recommended is the study of another language.

## 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 and cultural proficiency sufficient to permit them to function successfully within a Chinesespeaking 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. Students learning Chinese are encouraged to spend one semester or year in their junior year studying advanced Chinese in China.

## THE JAPANESE PROGRAM

The program in Japanese offers training in spoken and written language, as well as study of Japanese culture through a wide range of topics, including literature, linguistics, history, philosophy, art, modern culture and communication. Language classes are conducted in Japanese as much as possible, and provide students personal interaction and communicative practice, including language lab, and opportunities to experience linguistic as well as cultural hands-on experience with native Japanese speakers through various activities and projects. Other classes are conducted in English. The primary goal of the Japanese program is to develop both Japanese language skills and cultural awareness sufficient to succeed in the Japanese speaking society, as well as to provide an opportunity to widen insight into one's own native language and culture. Knowledge of Japanese is a valuable asset to those who seek opportunities in business, teaching (JET: the Japan and Exchange Teaching Programme in Japan), and government. The College offers a study abroad program at Obilin University in Tokyo, Japan. The courses taken abroad may satisfy minor requirement if approved by the language faculty. The minor in Japanese requires a minimum of 16 credits.

## GUIDELINES FOR A MINOR IN CHINESE, FRENCH, JAPANESE OR 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 Language Lab/Supporting Materials Fee

## CHINESE LANGUAGE COURSES (CHIN)

## 120 Elementary Chinese I

An introductory course in standard Chinese (Mandarin) designed for students with no previous knowledge of the language. The course introduces the fundamentals 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. Four 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. Four hours of classroom instruction and one hour of lab per week. One semester, 4 credits.

## 160 Chinese for Business and Travel

This course is designed for students with no or little knowledge of Chinese. This course introduces practical conversational Chinese (Mandarin) for business and travel. It focuses on enhancing the listening and speaking skills in situations related to hotels, airports, business and economic policies, appointments, etc. It also covers culture, social etiquette, and doing business in Chinese-speaking areas, such as China, Taiwan and Hong-Kong. One semester, 3 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

## 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.

190, 290, 390*, 490 Selected Topics in
Chinese Variable credits. Permission. May be repeated for credit.
295, 395, 495 Independent Studies
Credit and time arranged. Permission. May be repeated for credit.

## COURSES TAUGHT IN ENGLISH

## 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 credit.

## 110, 310* Masterpieces from China

 Representative readings in translation of twentieth-century Chinese literature from the late-Qing dynasty to the People's Republic of China, and contemporary Taiwan. This course will offer a window in twentiethcentury China and an introduction to the study of literature, and ask: Why do we read literature, and learn about different literary approaches and movements? Students are expected to examine the socio-political 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 cultureexpression, 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. One semester, 3 credits.

## 151* Topics in Modern Chinese Literature

(Same as 450) Taught in English. No
prerequisites. One semester, 3 credits.

## FRENCH LANGUAGE COURSES (FREN)

## 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. May be repeated for 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, 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.

## 200* Intermediate French Language and Culture Experience <br> (Whittier in Nice Summer Program)

This course is intended for students who have completed the 100 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.

## COURSES TAUGHT IN ENGLISH

115* Introduction to Contemporary French This class is an introduction to contemporary France in which we look at the constant exchange of literary, cinematic, philosophical and even culinary ideas between France and the U.S. The goal is not to determine which culture is better, but to learn about another culture (and therefore our own as well) while acquiring the tools of cultural analysis. Taught in English. No prerequisite. One semester, 3 credits.

126* Francophone Culture and Civilization (Same as 326) Taught in English. No prerequisites. One semester, 3 credits.

## 173* French Cinema

(Same as 473) Taught in English. No prerequisites. One semester, 3 credits.

175* Women's Portraits/Portrait de femmes
(Same as 475) Taught in English. No
prerequisites. One semester, 3 credits.
177* Franco-African Literature and Cinema
(Same as 477) Taught in English. No
prerequisites. One semester, 3 credits.
178* Pre and Post Revolutionary Child
(Same as 478) Taught in English. No
prerequisites. One semester, 3 credits.
180* Love and Life until the Revolution
(Same as 480) Taught in English. No
prerequisites. One semester, 3 credits.

## 181* Franco-Asian Literature

(Same as 481) Taught in English. No prerequisites. One semester, 3 credits.

## COMPOSITION, CULTURE, AND FRENCH FOR BUSINESS

## 300* Advanced French Language and Culture Experience <br> (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. May be repeated for credit. Summer, 3 credits.

## 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 (may be concurrent enrollment). One semester, 3 credits.

## 315* French for Business

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: 221 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: 221 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: 221 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: 221 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: 310 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 17th to the 20th-century. It is based upon detailed analysis of literary texts and considers the socio-historical background that contributed to the evolution of the genre. Prerequisite: 310 or equivalent. One semester, 3 credits.

## 453* Poetic Perspectives

Course designed to provide students with a better understanding of the 19th and 20th-century 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: 310 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: 310 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 RobbeGrillet, Duras, Sarraute, Ionesco and Genet. Prerequisite: 310 or equivalent. One semester, 3 credits.
## OTHER PERSPECTIVES

## 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: 310 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: 310 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: 310 or equivalent. One semester, 3 credits.

477* Franco-African Literature and Cinema Course 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: 310 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: 310 or equivalent. One semester, 3 credits.

## 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: 310 or equivalent. One semester, 3 credits.

## 481* Franco-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: 310 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: 310 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.

190, 290, 390* Selected Topics in French Variable credits. Permission. May be repeated for credit.

## 295, 395, 495 Independent Studies

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

## JAPANESE LANGUAGE COURSES (JAPN)

## 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. One semester, 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.

## 190, 290, 390, 490* Selected Topics in Japanese

An in-depth study of a specified topic, such as more complex syntax structures, various cultural aspects, including cinema, literature, art, religion, and the role of Zen philosophy in manners and ethics. Variable credits. Permission. May be repeated for credit.

## 295, 395, 495 Independent Studies

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

## SPANISH LANGUAGE COURSES (SPAN)

## 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: 221 or higher, equivalent, or permission. One semester, 3 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 fastmoving, 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.

## 230 Spanish Conversation

This course is conducted in Spanish and engages students in conversation in a variety of formats toward further developing oral proficiency and vocabulary. Readings, Internet surfing, TV or other viewings on topics of current interest done outside of class serve as the basis for general class discussions through practice in different types of discourse, including narration, description, critical commentary, debate, and dramatic dialogue. Some of the time will be devoted to developing conversational strategies, and much importance will be given to interaction in the classroom. Small group work, emphasis on natural language, and the use of authentic materials (including readings and films) will be among the instructional techniques used. Prerequisite: 221 or higher, equivalent, or permission. One semester, 3 credits.

## CULTURE, COMPOSITION, AND INTRODUCTION TO LITERATURE

## 225* Chicano Literature and Cultural Production

Surveys 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, 3 credits.

## 270 Intensive Spanish Grammar and Composition

This course 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 differences with English. This course also explores phonology, morphology, syntax and semantics. Prerequisite: 221 or higher, equivalent, or permission. One semester, 3 credits.

## 320 Advanced Composition and Creative Writing

This course emphasizes the development of writing skills, vocabulary expansion, and review of grammatical structures. Focus is on written expression, creative and academic, on themes related to the Spanish cultures. Students develop the strategies and skills needed to write on topics through practice of different types of discourse, including, narration, poetry, critical commentary and theoretical essays. Prerequisite: 270, equivalent, or permission. One semester, 3 credits.

## 325 Conversation on Hispanic Cultures

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: 270, equivalent, or permission. 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 , equivalent, or permission. One semester, 3 credits.

## 356 Introduction to Latin American/ Peninsular Literature II

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 , equivalent, or permission. One semester, 3 credits.

## LITERATURE COURSES

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 or higher, equivalent, or permission. One semester, 3 credits.

## 420* New World and Spanish Colonial Literatures

Selections from major genres of the precolonial and colonial periods (1100-1810) produced by authors in Spain and Latin America: indigenous codices, the chronicle of the Encounter and Conquest, lyric and epic poetry, colonial theater, pre-independence writing, etc... 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 and political essays. Prerequisite: 355 or higher, equivalent, 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 or higher, equivalent, 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 or higher, equivalent, or permission. One semester, 3 credits.

## 450* Latin American Literature from Independence to Modernism

This course focuses on major authors in the period, emphasizing those genres developed in the postcolonial cultural context. Literary and sociopolitical trends and cultural images and characters from early 19th century to early 20th century are critically examined. The course also includes the impact of Latin American writing on the literature in Spain, especially on Peninsular Modernism. Prerequisite: 355 or higher, equivalent, 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 or higher, equivalent, or permission. One semester, 3 credits.

## 470* Latin American Voices: The Twentieth Century

Critical study of selected contemporary Spanish-American 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 or higher, equivalent, 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 or higher, equivalent, 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 or higher, equivalent, or permission. One semester, 3 credits.

## 482* Literary Criticism and the Essay Tradition

Major approaches to the history of Spanish literary "ensayos" in Spain and Latin America. This course explores the imagery of Nation and Identities, the cultural and political debates in sciences and cultures. The course also focus on the construction of literary criticism in Spanish and translations of main trends on contemporary criticism. Prerequisite: 355 or higher, equivalent, or permission. One semester, 3 credits.

483* Cinema in Spain and/or Latin America This course examines Peninsular and Latin American cinematic production and introduces new critical approaches in film studies. The course may organize materials from a historical perspective, or focus on a selected period, theme, or director. Prerequisite: 355 or higher, equivalent, or permission. One semester, 3 credits.

484* Women's Voices in the Hispanic World This course explores Peninsular, Latin American, and Latino women voices, whether writers, political activists or in popular culture. Depending on Professor's expertise, the course will be developed as a survey by examining literary or non-literary texts from historical periods, or organized as a seminar focusing on selected texts produced by a particular group of authors or in specific nations or communities. Prerequisite: 355 or higher, equivalent, 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 or higher, equivalent, or permission. One semester, 3 credits.

## 190, 290, 390, 490* Selected 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; Hispanic Popular Culture; AfroLatino Voices; Asian Influences in Latin America. Topics vary by semester. May be repeated for credit. One semester, 3 credits.

## 295, 395, 495 Independent Studies.

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

[^4]
## Stephen Cook

## Teresa LeVelle

Danilo Lozano
David J. Muller, Chair

ARTISTS-IN-RESIDENCE:
Stephen Cook (Piano)
Kevin Cooper (Guitar)
Sal Cracchiolo (Trumpet)
Theresa Dimond (Percussion)
Leslie Ho (Violin and Viola)
Teresa LeVelle (Composition)
Danilo Lozano (Flute)
David Muller (Bassoon)
Diane Muller (Horn)
Donna Nesheim (Voice)
Frances Nobert (Organ)
Michael Stevens (Voice)
Joseph Stone (Oboe and Saxophone)
Bob Wirtz (Bass and Bass Guitar)
Anne Young (Clarinet and Recorder)

A$1 l$ students will find in music a varied and enriching program in performance and study. Exceptional opportunities for both solo and ensemble performance are available, and all students are eligible to audition for membership in the College Choir and Chamber Music ensembles. Through audition, 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, instruments and composition is offered at all levels of proficiency by an outstanding artist faculty. Class instruction is also available in piano.
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, class instruction is offered in conducting, music literature and materials, theory, music business and music technology. A digital piano and music technology lab is available for student use and is integrated in several course offerings. Students may also develop areas of specialization or individual projects under faculty supervision in related fields such as church music, management, musicology, ethnomusicology, music theory, music industries, and music theater.

GUIDELINES FOR A MAJOR IN MUSIC
Core Courses (30 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
Instrumentation, MUS 300, 2 credits
Class Piano for Majors, MUS 110 (must be taken concurrently with MUS 100H, and 100M. A student may be exempt from Class Piano for Majors through testing.), 1 credit
Music History I, II, MUS 203 and MUS 204, 6 credits
Introduction to Ethnomusicology, MUS 303, 2 credits
Introduction to Music Technology, MUS 111, 2 credits
Private Instruction (minimum four semesters), 0 credits
Ensembles (chamber or choral; minimum five semesters), 0 credits
Colloquium, MUS 50, 0 credits
Senior Seminar, MUS 400, 2 credits

Additional Elective Requirements (At Least 12 Credits):
Music Business, MUS 104, 2 credits
World Percussion Methods, MUS 105, 2 credits
Music History III, MUS 205, 3 credits
History of Film Music, MUS 206, January 4 credits; Fall/Spring 3 credits
Music Technology II, MUS 211, 2 credits
Conducting, MUS 305, 3 credits
Recording Techniques, MUS 310, 2 credits
Choral Methods, MUS 351, 2 credits
Current Topics in Music, MUS 390/490, variable credits
Recital, MUS 307, 0 credit

## Proficiencies

All music majors must pass a piano proficiency examination before graduation. Music majors are expected to demonstrate basic keyboard skills by the end of the first academic year in the department. Students expecting to major in music will be examined for keyboard skills upon entry into the music major. If the audition is not passed, the student is expected to enroll in Class Piano for Majors (MUS 110) or in private piano instruction until the proficiency examination is completed.

## Proficiency Requirements:

- Play all major and minor scales and arpeggios, two octaves, hands together.
- Prepare a memorized composition of the intermediate level using the damper pedal.
- Accompany an instrumentalist or vocalist; appropriate assignments based on level and technique will be distributed in class.
- Prepare a harmonization of a simple folk tune.
- Read a piece of the late elementary level at sight


## GUIDELINES FOR A MINOR IN MUSIC

Minimum Requirements (18 credits):
Introduction to Music Theory and Musicianship, MUS 70, 3 credits
Harmony I, MUS 100H, 3 credits
Musicianship I, MUS 100M, 1 credits
Music History I, II, MUS 203 and 204, 6 credits
Introduction to Music Technology, MUS 111, 2 credits
Ensembles (Chamber or Choral), 2 credits
Private Instruction, 1 credit.
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.

## COURSE DESCRIPTIONS (MUS)

## COURSES FULFILLING LIBERAL ARTS REQUIREMENTS

## 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.

## 71 Music in History

This course is designed to help the musically inexperienced gain a better understanding of the elements of music from a listener's perspective, its evolution throughout history, and its current place in a changing society.

Emphasis is placed on identification of genres, as well as social and political trends affecting musical development. Class members will attend a live music performance (extra fee required). One semester, 3 credits.

## 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.

## 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.

## 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.

## 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.

## 102 History of Jazz

This course examines the development of jazz from its African and African-American folk origins through the blues, early jazz, swing era, bebop, "cool" jazz, fusion and contemporary styles of Jazz. Discussion on the works of jazz musicians, such as Louis Armstrong, Duke Ellington, Miles Davis, John Coltrane, will emphasize their significance in United States' historical and social contexts. One semester, 3 credits.

## 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.

## COURSES FULFILLING MAJOR REQUIREMENTS

## 50 Colloquium

An investigation of historical music topics as well as the evolving character and purpose of music in society. Presented in seminar format, the colloquium focuses on specific topics related to performance, interpretation, historical significance and style of all types of music; includes lectures by visiting artists, small group discussions, and concert attendance. Music majors must take four semesters of this course. May be repeated. One semester, 0 credits.

## 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.

## 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 100H. Prerequisite: 70 or permission. One semester, 1 credit.

## 104 Music Business

Introduction to non-performance careers within the music business; performingright payments, music for stage and screen, marketing, etc. Techniques designed to assist in the transfer from academic to work environment will be presented in addition to discussion of current events within the music industry.

## 105 World Percussion Methods

This course provides students with the opportunity to learn and execute the principles of world percussion. Emphasis is placed on the teaching methods for world percussion through rehearsal techniques and performing experiences. Prerequisite: MUS 70. One semester, 2 credits.

## 110 Class Piano for Majors

Introduction to the concepts of musicianship and technique at the keyboard while preparing the student for successful completion of the required piano proficiency examination administered by the music department; content includes scales, arpeggios, accompanying skills, repertory. May be repeated for zero credit until proficiency requirement is met. One semester, 1 credit.

## 111 Introduction to Music Technology

This course is designed to introduce the student to the practical applications of music software on the Macintosh platform, including Finale, and Digital Performer. Techniques and exercises are used to discover the capabilities of each program, culminating in a semester project specifically coordinated to individual student interest. Technology fee required. Prerequisite: MUS 70. One semester, 2 credits.

## 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.

## 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 200H. Prerequisite: 100 M or permission. One semester, 1 credit.

## 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.

## 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.

## 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: 100H. One semester, 3 credits.

## 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.

## 205* Music History III

History, literature, and theory; analysis and composition based on resources from Debussy to the present. Prerequisite: 204. One semester, 3 credits.

## 206 History of Film Music

An introduction to the history of film music, from early dramatic film scores of Max Steiner and Alfred Newman to synthesized scores of Hans Zimmer, Danny Elfman, and other contemporary composers. Extensive viewing and commentary of films; brief technical explanation of film scoring techniques. Instructor permission required. One semester, January, 4 credits; Fall/Spring 3 credits.

## 211* Music Technology II

Continuation of techniques and applications obtained in Introduction to Music Technology with emphasis on integration of software programs for optimal project success. Technology fee required. Prerequisite: 111. One semester, 2 credits.

## 300* Instrumentation

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, and to gain a basic understanding of the computer notation software used in this scoring process. Prerequisite: 201 H . One semester, 2 credits.

## 305* Conducting

Score reading and baton technique; study and execution of basic patterns using standard orchestral and choral literature, score reading, performance, and stylistic analysis. Prerequisite: 201 H or by Permission. One semester, 3 credits.

## 306* Instrumental Conducting

Prerequisite: 201 H or by Permission. One semester, 3 credits.

## 307 Recital

One semester, 0 credits.

## 310* Recording Techniques

Introduction to the basic principles and properties of sound: frequency, intensity, timbre, resonance, reverberation; study of multi-track recording techniques, signal processing devices, and MIDI techniques including sequencing, analog to digital transfer, and editing. Prerequisite: 211 . One semester, 2 credits.

## 330* Introduction to Ethnomusicology

This course introduces the student to the theory and methodology in the field of Ethnomusicology. Emphasis is placed on the systematic study of non-western music cultures. Topics for discussion include fieldwork, musical transcription, description of musical compositions, organology, historical and geographical approaches, context and communication, and bibliographic resources. Prerequisite: 204. One semester, 2 credits.

## 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.

## 400 Senior Seminar

Special topics presented by music 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. Instructor permission required. One semester, 2 credits.

190, 290, 390, 490* Selected Topics in Music Variable credits. Permission. May be repeated for credit.

295, 395, 495 Independent Study Variable credits. Permission. May be repeated for credit.

## 198, 398 Private Instruction

Private lessons are offered by an outstanding artist faculty in all instruments, voice and composition. 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.

## STUDENT RECITALS

Each month Whittier College students studying privately with an Artist-in-Residence have the opportunity to perform in the Poet Musicale. Majors are strongly encouraged 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.

## ENSEMBLES

All of the ensembles listed below are open to all students, subject to audition or permission of the instructor. All are available for zero to one credit 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, Mexico, and Hawaii. (MUS 018)
VOCE 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. (MUS 019)

The CHAMBER MUSIC ENSEMBLES provide students with the preparation and performance of small group/chamber music. Emphasis is placed upon high degree of musicianship and fine ensemble playing. Areas of concentration include the study of musical styles, phrasing, balance and blending techniques, intonation, rehearsal techniques, and performance. Groups ranging in size from 2 to 10 members are formed for this purpose. Performances take place on regularly scheduled Music Department activities. (MUS 051)
In addition, students may participate in either of two community ensembles:
RIO HONDO SYMPHONY: A regional, semiprofessional 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. The chorale is open to faculty, staff and students by audition.
*Not offered every year.

David P. Hunt, Chair<br>Paul Kjellberg<br>Michelle Switzer

hilosophy 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.

## 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 Seminar in Philosophy (PHIL 425). 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

## 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.)

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.

## COURSE DESCRIPTIONS (PHIL)

## 50* Meet and Talk

Informal philosophical discussion in the home of one of the faculty members. One semester, 1 credit.

## 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

## 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.

## 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.

## 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.

## 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.

## 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 society; classic
issues such as the nature of political authority, the social contract, and community. One semester, 3 credits.

## 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.

## 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.

## 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.

## 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.

## 315* Modern Philosophy

Major Continental and British philosophers of the 17th and 18th centuries, beginning with Descartes and ending with Kant. Not open to freshmen; previous course in philosophy recommended. One semester, 3 credits.

## 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.

## 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.

## 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. Open to juniors, or sophomores with one previous course in philosophy. Recommended: 270 . One semester, 2 or 3 credits.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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: 105 or 9 credits in Women's Studies. One semester, 3 credits.

## 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.

## 190, 290, 390, 490* Selected Topics in Philosophy

Variable credits. May be repeated for credit.

## 295, 395, 495 Independent Studies in Philosophy

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

## 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-the-major. Prerequisites: Senior standing and permission. Two semesters, 1 or 2 credits each, for a total of 3 credits.
*Not offered every year.

Seamus Lagan, Chair<br>Glenn Piner<br>Serkan Zorba

xysicists 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 web.whittier.edu/physics, provides up-to-date information and announcements important to students interested in physics.

## 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.

Required Physics Courses:
Intro Optics and Modern Physics, PHYS 130, 4 credits
Intro Kinematics and Mechanics, PHYS 150, 4 credits
Intro Electricity, Magnetism and Thermodynamics, PHYS 180, 5 credits
Computational Oscillations and Waves, PHYS 250, 3 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 499A,B , 3 credits

Required Math Courses:
Calculus I and II, MATH 141 A,B, 8 credits (Note: MATH 139 A,B may substitute for MATH 141A)

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
Advanced Electronics and Computer Interfacing, PHYS 305, 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

## Option II

Completion of 6 credits from the list above (at least 3 in physics) plus a twosemester introductory sequence in another science approved by the department (e.g., CHEM 110).

## 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.

## 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.

## 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 Kinematics and Mechanics, PHYS 150, 4 credits
Intro Electricity, Magnetism and Thermodynamics, PHYS 180, 5 credits
Computational Oscillations and Waves, PHYS 250, 3 credits
Two upper division physics courses approved by the Physics Department, 6 credits

## Math Courses Required for a Minor in Physics

MATH 141 A,B, Calculus I and II, 8 credits
MATH 241 Calculus III, 4 credits

GUIDELINES FOR CHOOSING A BEGINNING-LEVEL PHYSICS OR ASTRONOMY COURSE

## Students not majoring in science:

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.

## Pre-Health students:

PHYS 130 and PHYS 131 together constitute a year in algebra-based physics suitable for most pre-health professional students who will be taking the MCAT and related exams.

Both of these courses are algebra-based. Note that these courses can be taken in any order. PHYS 130 satisfies the ILS requirement.

## Students majoring in physics or engineering, and well-prepared pre-health or nonscience students:

PHYS 130, 150, and 180 together constitute the physics sequence for physics majors and pre-engineering students. This sequence is also recommended for students in other sciences planning to attend graduate school, and interested students with majors outside the sciences. Well-prepared pre-health students can complete this sequence rather than PHYS 130 and 131, and thus strengthen their applications. PHYS 150 should be completed before 180, but PHYS 130 can be taken at any time. All three satisfy the ILS requirement. PHYS 130 is algebra-based, but PHYS 150 and 180 require calculus as a prerequisite (concurrent enrollment allowed).
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.

## COURSE DESCRIPTIONS (PHYS)

All Physics laboratory courses require a lab fee. Lab courses include Phys 90L, 130, 131, 150, 180, 205, 305, 320, and 380A,B. Contact the Department of Physics and Astronomy for details or see the Whittier College course schedule.

## 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.

## 131 Introductory Mechanics and Electromagnetism

This is a one-semester algebra-based physics course which is aimed at students in the pre-health programs. Topics covered include kinematics, Newton's Laws, momentum, energy, electrostatics, circuits, magnetostatics, electromagnetic induction. There is a separate lab session for this course. One semester,-4 credits.

## 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. Prerequisite: Math 141A OR MATH 139A (may be concurrent). One semester, 4 credits.
## 180 Introductory Electricity, Magnetism, and Thermodynamics

This is a one-semester, calculus-based introductory physics course that is normally taken after PHYS 150. Topics covered include electrostatics, circuits, magnetostatics, electromagnetic induction, heat and temperature, thermodynamic engines, and ideal gases. This course is taught in an activitybased workshop format. Prerequisite: 150 and Math 141B (may be concurrent). One semester, 5 credits.

## 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, flipflops, 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.

## 250 Computational 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. Heavy use of computers and computational techniques are stressed throughout the course. Prerequisites: 150, 180. Prerequisites or concurrent enrollment: 130, MATH 241. One semester, 3 credits.
## 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. Special relativity. Prerequisite: 250 (may be concurrent). One semester, 3 credits.

## 315 Statistical Physics*

Physics of large-scale systems consisting of many particles. Statistical mechanics, kinetic theory, thermodynamics, and heat. Introduction to quantum statistics. Prerequisite: 250 (may be concurrent). One semester, 3 credits.

## 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. Prerequisite: 250 (may be concurrent). One semester, 3 credits.

## 325 Advanced Modern Physics*

Concepts of modern physics applied to important physical systems including solids, molecules, nuclei, and elementary particles. Prerequisite: 250 (may be concurrent). One semester, 3 credits.

## 330 Electromagnetic Theory*

Electro- and magneto- statics in vacuum and in matter, scalar and vector potentials, and electrodynamics. Maxwell's equations and electromagnetic waves. Prerequisite: 250 . One semester, 3 credits.

## 350 Quantum Mechanics*

General formalism; operators, eigenfunctions and eigenvalues. The Schrodinger equation. One dimensional quantum systems. Angular momentum. Prerequisite: 250 . One semester, 3 credits.

## 360 Astrophysics*

Stellar structure, stellar spectra, nuclear energy generation, and stellar evolution. The interstellar medium, galaxy structure and dynamics, and cosmology. Prerequisite: 250 (may be concurrent). One semester, 3 credits.

## 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. Prerequisite: 250 (may be concurrent). One semester, 3 credits.

## 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. Prerequisite: 250 (may be concurrent). Two semesters, 2 credits each semester. Physics 380B may be repeated for credit.

190, 290, 390, 490* Selected Topics in Physics
Variable credits. May be repeated for credit.

## 295, 395, 495 Independent Study

Variable credits. Permission. May be repeated for credit.

## 196, 296 396, 496 Research

Independent research under the direction of a faculty member. One semester or January, 1-4 credits. May be repeated for credit.

## 499A, B 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. Two semesters. 499A, 1 credit, in the Fall and 499B, 2 credits, in the Spring.
*Not offered every year.

Frederic A. Bergerson, Chair<br>Caroline Heldman<br>Joyce Kaufman<br>Michael J. McBride<br>John H. Neu<br>Deborah Norden

lato once suggested that the wise 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 Honor Society. 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.

## GUIDELINES FOR A MAJOR IN POLITICAL SCIENCE

A minimum of 36 credits, including:
American Government and Politics, PLSC 110, 3 credits
Comparative Politics, PLSC 140, 3 credits
International Relations, PLSC 220, 3 credits
Political Methodology, PLSC 280, 3 credits
Normative Political Theory, PLSC 380, 3 credits
One course in Public Administration (PLSC 260 or 360), and/or Public Law (PLSC 370, 372 or 376)
One January Session course or approved equivalent
One Capstone seminar
Two additional courses, 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 228; 332; 333, 9 credits
PLSC 330, 339, or 340, 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 that is either language-based or has a political science or international relations component.

## GUIDELINES FOR A MINOR IN POLITICAL SCIENCE

A minimum of 18 credits, including PLSC 100 or 110 , 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.

## COURSE DESCRIPTIONS (PLSC)

## INTRODUCTORY COURSES

## 100 Introduction to Political Science

Political Science as the study of political behavior from various perspectivesindividual, 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.

## AMERICAN POLITICS

## 110 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.

205* Women in American Politics
Examines the changing role of women in American politics and society, including the suffrage movement, the ERA, work and career patterns. One semester, 3 credits.

## 207* Elections and Participation

This course examines political participation in electoral politics in the United States. It focuses on issues of representation and democracy, campaigns, and election processes. Students will learn about the role of interests in elections, campaigning tactics, and different ways that citizens participate in their governance. One semester, 3 credits.

## 208 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.

## 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.

## 303* Race and Ethnicity in American Politics

This course looks at the struggle for civil rights and civil liberties among racial minorities since the nation's founding. Special attention will be paid to different theories of race and racism in this course. Prerequisite: 110 or permission. One semester, 3 credits.

## 304 Political Parties, Interest Groups, and the Media

The nature, purpose, and functions of American political parties, interest groups, and media are examined in this course. Particular attention is paid to the role of these organizations in the governmental process, nominations, elections, and voting behavior, and their relative influence in American politics. Prerequisite: 110 or permission. One semester, 3 credits.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

## 220 International Relations

Development of international politics since World War I; basic concepts and theories regarding political interaction among nationstates, emphasizing national interest and security, the exercise of power and its limits, and international conflict and cooperation. One semester, 3 credits.

## 225* Problems and Policies in Contemporary Politics

Focuses on a major problem in contemporary politics; opportunity for in depth analysis of the problem's background, current status, and prospects for resolution. January, 4 credits.

## 228* 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.

## 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.

## 332 American Foreign Policy

Historical evolution of American foreign policy from independence to the present; the decision-making process; problems and prospects in contemporary foreign policy. One semester, 3 credits.

## 333* International Political Economy

Surveys an influential area of international relations that 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. neoinstitutionalism in a variety of regional settings. Prerequisite: 220 or permission. One semester, 3 credits.

## 335 International Relations of Latin America

Examines relations between and among Latin American countries, looking at competition, conflicts and efforts at cooperation. Includes attention to cross-border challenges such as migration, narcotics trafficking and political insurgency, as well as dealing with Latin American efforts to enhance regional trade and democratization. Prerequisite: 140 or 220 or permission. One semester, 3 credits

339* Military Strategy and Arms Control An examination of the development and application of military strategy, focusing on concepts such as deterrence, preemption, weapons of mass destruction and counterterrorism, with emphasis on the current and future roles of arms control in national security policy. One semester, 3 credits.

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.

## COMPARATIVE POLITICS

## 140 Comparative Politics

Compares different ways of organizing politics in more and less developed countries in various regions of the world. Primary themes include political legitimacy and authority, representation, and patterns of political change. One semester, 3 credits.

## 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; and modern Russian politics through lectures, serious games, films, and literature. January, 4 credits.

## 252 Latin American Politics

Comparison of political systems of Latin American nations; emphasizes dynamics of political change and problems of democracy. Prerequisite 140 or permission. One semester, 3 credits.

## 253 Politics of Diversity in Latin America: Race, Religion and Gender

Using film, explores the origins, organization and political implications of ethnic, religious and gender diversity in Latin America, from colonialism through the present. January, 4 credits.

## 340 Political Violence

Explores the motivations and causes of political violence, including guerrilla warfare, terrorism, military coups d'etat and genocide, looking at various regions of the world.
Prerequisite: 140 or 220 or Permission. One semester, 3 credits.

## 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.

## 346* Russian and East European Politics

 Eastern Europe in transition: an analysis of the political, cultural, economic, and historical factors that led to changes in the former Soviet Union and Eastern Europe and consideration of future alternatives for the region. One semester, 3 credits.
## 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.

## 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.

## 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.

## 358* African Political Systems

Comparative study of political change in Africa south of the Sahara; traditional political systems, colonialism, nationalism, and problems of nation-building and development. One semester, 3 credits.

## 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.

## 440* Seminar in Comparative Politics

Substantive and methodological problems in comparative politics research; completion of independent research project. Permission. One semester, 3 credits.

## PUBLIC ADMINISTRATION AND LAW

## 260* 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.

## 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, crime and punishment, and mass transportation issues. Permission. May be repeated for credit. One semester, 3 credits.

## 364* Complex Organizations

An analysis of the phenomena and theories of large, complex, formal organizations. Studies the organization as an economic, social, decision-making, bureaucratic, and political system. 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.

## 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.

## 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 Policy

Seminar will focus on a vital topic of public policy, emphasizing administrative aspects of policy making and implementation. Permission. 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.

## 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. One semester, 3 credits. Prerequisite 110 or 140 or 220 or Permission.

## 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. Prerequisite sophomore standing. One semester, 3 credits.

## 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.

## ADDITIONAL OFFERINGS

190, 290, 390, 490* Selected Topics in Political Science
Variable credits. Permission. May be repeated for credit.

## 295, 395, 495 Independent Studies

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

## 496 Internship

Supervised field experience in local, state or national government, law, and practical politics. International organizations, interest groups, and non-governmental organizations with political missions may be considered. Permission. One semester, variable credits. May be repeated for credit.

[^5]Lorinda B. Camparo, Chair
Charles T. Hill
Lucy A. O'Connor
Ayesha Shaikh
David B. Volckmann

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 study behavior and experience from a psychological perspective. Achieving this goal requires critical thinking and communication skills as well as knowledge of psychological theories and research methods. It also requires understanding 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 across the entire psychology curriculum focus on writing, research, and diversity. There also are opportunities for independent scholarship and collaborative research with faculty. Students are broadly prepared for graduate studies and for fields of employment that apply methods and principles of psychology. Previous majors have pursued a wide range of careers including social services, medicine, business, education, the arts, international relations, and law, as well as specific branches of psychology.

## 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 Seminar, 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
Clinical Communication, PSYC 376, 4 credits
At least 12 units of electives in psychology
One additional laboratory science course outside the field of psychology, 4 credits.
Due to prerequisites, the following course sequence is strongly recommended:

- Freshman year - 100, 222;
- Sophomore year - 212, 314 (preferably concurrently);
- Junior year - 317, one additional laboratory course;
- Senior year - 484.


## 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, 376;
- Nine credits chosen from: PSYC 212; 222 or 224; 242; 334 or $335 ; 336 ; 352$; 362; 372; and
- One additional 3-credit or 4-credit course at the 200 level or above.


## COURSE DESCRIPTIONS (PSYC)

## 85 Forensic Psychology

Forensic Psychology is the application of psychological insights, concepts, and skills to the understanding and functioning of the legal and criminal justice system. This course will address current theoretical and empirical issues in the study of psychology and law. Topics may include eyewitness testimony, credibility assessment, jury decision making, child abuse and memory for traumatic events, juvenile delinquency and criminology, prediction of violence, and insanity defense. Janury, 4 credits.

## 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.

## 92 Psychology of Human Sexuality

The psychology and psychobiology of human sexual responses; the development of normal sexuality; sexual deviations and incompetencies, and remediation of sexual problems. January, 4 credits.

## 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.

## 148 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 coursework, and instructor permission. One semester, 3 credits.

## 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.

## 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.

## 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 105.) One semester, 3 credits.

## 244 Psychology of Adolescence

Major theories and issues relevant to the physical, emotional, social, and cognitive development of adolescents. Prerequisite: 100 and instructor permission. One semester, 3 credits.

## 314 Statistics

Data analysis in the social sciences; analysis of distributions, central tendency, variability, correlation, and parametric and nonparametric statistical tests; use of computer packages including SPSS. Prerequisites: A college math course and sophomore standing. One semester, 4 credits.

## 317 Literature Review Seminar

Seminar on conducting literature reviews on psychological topics, resulting in a scholarly paper written by each student. Prepares for 400 -level courses in Psychology. Opportunity to begin developing research proposal for 417. Prerequisites: 212, 314 and junior standing. One semester, 3 credits.

## 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.

## 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. Seminar, discussion, and laboratory. Prerequisites: 222 or 224. One semester, 4 credits.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.

## 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.

## 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.

## 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.

## 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.

## 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 100. One semester, 3 credits.

## 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.

## 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.

## 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 where and how women fit into the world including the ways in which they have been and continue to be marginalized in various cultures. Prerequisite: 100. One semester, 3 credits.

## 368* Psychological Assessment

Provides an introduction to psychological assessment and measurement theory by examining the measurement of cognitive abilities, personality, and preferences. Includes development, administration, and interpretation of psychological assessment instruments. Prerequisite: 314 . One semester, 3 credits.

## 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.

## 376* Clinical Communication

Emphasis on examining the change agents in psychotherapy and learning how to develop help-intended communication skills through the use of miniature mutual support groups. Analysis of communication using a verbal response mode classification system. Lecture, discussion, and laboratory. Prerequisite: 100. One semester, 4 credits.

## 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. Prerequisite: 100 and instructor permission. One semester. Variable credits. May be repeated for credit.

## 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.

## 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. Senior capstone course. Prepares for Senior Presentation. Prerequisites: 317 and senior standing. One semester, 3 credits.

## 496 Independent Research

Opportunity to conduct independent individual research. Prerequisites: 212, 314, 317 , and instructor permission. Credit and time arranged.

190, 290, 390, 490* Selected Topics in Psychology
Variable topics and credits. Prerequisites: 100 and instructor permission. May be repeated for credit.

295, 395, 495* Independent Study Credit and time arranged. Prerequisites: 100, instructor permission, and extensive background in psychology or other social sciences. May be repeated for credit.
*Not offered every year.

Marilyn Gottschall

Joseph L. Price, Chair

Glenn Yocum

aThe Religious Studies Department at Whittier College provides students an gpportunity to study the world's religions in one of the most religiously and ethnically diverse places in the world: greater Los Angeles. Our program develops students' understanding of 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 views 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.

## GUIDELINES FOR A MAJOR IN RELIGIOUS STUDIES

A minimum of 36 credits, of which 18 must be at the 300 level or above:
Religious Diversity in America, REL 101, 3 credits
Choice of one:
Selected Topics: Seminar in Religion, REL 490, 3 credits
Directed Studies, REL 495, 2 or 3 credits
At least six credits in each of the three categories:

## Global Religions

Religions: Comparisons and Contrasts
Religions: Cultural Critique

Students who major in Religious Studies must have one of the Religious Studies faculty as their advisor.

## GUIDELINES FOR A MINOR IN RELIGIOUS STUDIES

A minimum of 18 credits, including REL 101 and 12 additional credits chosen from Religious Studies courses taught by faculty whose primary appointment is in the Religious Studies Department.

## INTRODUCTORY COURSE

## 101 Religious Diversity in America

An introduction to religious studies focusing on greater Los Angeles, which some experts claim is the most religiously diverse environment in the world. Attention to traditional Catholic, Protestant, and Jewish religions; recent immigrant traditions; religious innovation and change; and the implications of religious pluralism. Field trips. One semester, 3 credits.

## GLOBAL RELIGIONS

## 201 Monotheisms

An introductory survey of major texts, beliefs, and practices of Judaism, Christianity, and Islam. One semester, 3 credits.

## 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.

## 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.

## 216* Literature of the Bible

(Same as ENGL 222) One semester, 3 credits.

## 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.

## 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.

## 235, 236 Arabs and Muslims I \& II

(Same as INTD 225, 226) Two semesters, 3 credits each.

## 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.

## 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. Includes 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.

## 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.
## 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.

## 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.

## RELIGIONS: COMPARISONS AND CONTRASTS

241* Sport, Play and Ritual

(Same as INTD 241) January, 4 credits.

## 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.

## 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.

## 307* Religion and the Body

An exploration of the ways in which the corporeal practices and ideologies of diverse religious traditions mediate social meaning. Includes such topics as food and fasting; medicine, healing, and illness; pleasure and pain; representations of the body; sex and reproduction; biological aspects of religion (brain, mind, soul) and religious experience. One semester, 3 credits.

## 321* Religion in America

Distinct religious movements, themes, and personalities in American history before 1870. Topics include native American religions, Puritanism, California missions, revivalism, frontier religion, and transcendentalism. One semester, 3 credits.

## 341* New Religious Movements in Southern California

An examination of how California's cultures spawn and embrace innovative and emergent religious groups. Representative NRMs include New Age, Scientology, Aetherius Society, Jesus Movement, Neo-Paganism. Extensive field trips. 4 credits.

## 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, and musical styles, including Qur'anic chant, and Santeria trance dance. One semester, 3 credits.

## 348* Ritual Studies

An integration of theoretical and interdisciplinary perspectives on ritual as sacred performance. It examines the connection between practice and belief in a series of cross-cultural case studies and is organized thematically around such issus as sacrifice, death and dying, food, the body, and lifestage events. One semester, 3 credits.

## 349* Religious Fundamentalisms

An examination of the roots and expansion of religious fundamentalism throughout the modern world. Topics include Protestant fundamentalims in England and the United States, the Muslim Brotherhood in Eypt, and fundamentalism in Jewish, Buddhist, Hindu, and Sikh traditions, among others. One semester, 3 credits.

## 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.

## RELIGIONS: CULTURAL CRITIQUE

## 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.

## 340* Global Ethics

An examination of contemporary ethical issues from a theological perspective. Topics include environmental issues, world hunger, nuclear arms, capital punishment, human sexuality, abortion, euthanasia, drug abuse and genocide. One semester, 3 credits.

## 345* Jesus on Film

An examination of various films about the life of Jesus, ranging from traditional portrayals to provocative ones. Emphasis on how aesthetic, political, social, and theological dispositions affect the portrayals. Selected films include foreign, epic, and musical presentations. 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 are examined. One semester, 3 credits.

## 351* Public and Popular Religion

An examination of distinct religious communities and themes in American culture since 1870. Topics include Mormonism, Shakers, utopian communities, civil religion, and televangelism. One semester, 3 credits.

## 359* Religion and Colonialism

An exploration of several classics in the study of religion that 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.

## 361* Ways of Understanding 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.

## ADDITIONAL OFFERINGS

190, 290, 390, 490* Selected Topics in Religion Permission. One semester, Variable credits. May be repeated for credit.

## 295, 395, 495 Independent Studies

Credit and time arranged. Permission. May be repeated for credit.
*Not offered every year.

Co-Directors: Jeff Lutgen, (Mathematics)<br>Seamus Lagan, (Physics and Astronomy)

Participating Faculty: Abi Fattahi, (Mathematics)<br>Sharad Keny, (Mathematics)<br>Glenn Piner, (Physics and Astronomy)<br>Fritz Smith, (Mathematics)

$G$omputers are now employed throughout our society to perform a very wide variety of tasks. All branches of science and engineering use computing technology extensively. Sophisticated laboratory apparatus is nearly always computer-controlled. Computers are used to collect, store, and analyze large amounts of data quickly, to simulate natural systems, and to control industrial processes, among other tasks.

The Scientific Computing minor at Whittier College is designed to help prepare students majoring in one of the sciences for advanced computing work in their own fields and for work in the computer industry. The minor begins with computer programming and interfacing of computers to apparatus at the introductory level, and then continues with a range of advanced courses that allow students to focus on particular topics in scientific computing and/or broaden their computing skills. Most students will complete a research project with a significant computing component as part of the minor.

## GUIDELINES FOR A MINOR IN SCIENTIFIC COMPUTING

To be awarded a minor in Scientific Computing, students must complete nine credits of required core courses and nine credits from the list of optional courses for a total of at least eighteen credits. At least six credits of the eighteen must be at the 300 level or higher.

Core Courses
COSC 120 Programming I 3 Credits
COSC 220 Programming II* 3 Credits
PHYS 205 Intro Electronics \& Computer Interfacing* 3 Credits

Optional Courses
PHYS 305 Advanced Computer Interfacing* 3 Credits
ES 140 Geographical Information Systems 4 Credits

| MATH 220 | Discrete Mathematics | 3 Credits |
| :--- | :--- | :--- |
| PHYS 250 | Computational Oscillations and Waves | 3 Credits |
| MATH 350 | Numerical Analysis* | 3 Credits |
| MATH 354 | Mathematical Modeling* | 3Credits |
| Research** |  | $1-3$ Credits |

Other courses with significant computing components can be considered for credit toward the Scientific Computing minor. See either of the co-directors for additional information.
*Not offered every year.
** Projects in Biology, Chemistry, Earth Sciences, Mathematics, and Physics that involve significant scientific computing. The research advisor must certify that the project involves significant computing in order for the project to count toward the minor.

Claudia Dorrington<br>Leslie Howard<br>David Iyam<br>sal johnston<br>Desiree Martinez, Irvine Fellow<br>Rebecca Overmyer-Velazquez<br>Paula Sheridan, Chair<br>Charles T. Hill, affiliate

aslociology 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.

## GUIDELINES FOR A MAJOR IN SOCIOLOGY

A minimum of 32 credits, including:
Introduction to Sociology, SOC 100, 3 credits
Statistics, SOC 314, 4 credits
Approaches to Social Research, SOC 310 or Field Research, SOC 311, 3 to 4 credits.
Social Theory in Social Context, SOC 302, 3 credits
One course in Cultural and Micro Perspectives, from among: SOC 322; SOC 340; or SOC 342, 3 credits.
One course in Race, Class and Gender, from among: SOC 352; SOC 357; SOC 385; or SOC 386, 3 units.
One course in Social Structures and Institutions from among: SOC 350; SOC 354 ; SOC 356 ; SOC 358 ; SOC 378 ; or SOC 383,3 credits.

Advanced Research Seminar, SOC 410, 3 credits.
Senior Integrative Seminar, SOC 408, 3 credits.
Breadth Outside Major: this requirement can be met by any one of the following: a minor in any discipline, a second major in any discipline, or an additional 12 units above 300 in any discipline other than sociology.

## 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).

## GUIDELINES FOR A MINOR IN SOCIOLOGY

A minor in Sociology requires 18 credits, including SOC 100 (or approved 200 level alternative), one course numbered SOC 302, SOC 310 or 311, and a total of at least 12 credits above the 300 level.

## COURSE DESCRIPTIONS (SOC)

## 14 Internship in Urban and Organizational Studies

Supervised placement in urban planning agencies and settings or in other specialized organizations. Cross-listed with SOWK 10. One semester, 3 credits.

## 100 Introduction to Sociology

A general introduction to the topics, methods, and theories of the discipline. The course will address basic social processes and institutions, including social solidarity, inequality, conflict, interaction, ideology, culture, and social structure. Open to freshmen or sophomores. One semester, 3 credits.

## 215 Geographic Information Systems

(Same as ES 140) One semester or January. 4 credits.

## 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.

## 260 Social Movements

An historical and comparative study of popular movements in the U.S. and internationally. We will examine how and why popular movements emerge; what sustains them; what constitutes a successful social movement; and why social movements fail. We will also pay close attention to the relationship between social movement goals and their actual effect on the larger society. A key focus will be the Civil Rights movement in the U.S., and the several ethnic and racial movments that the Civil Rights movement inspired. We will use these movments, taken together, as an example of the emergence of an "identity politics" on a global scale. One Semester, 3 credits.

## 270 Death, Dying, and Bereavement

Explores historical and cultural 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. (Cross-listed with SOWK 270)

## 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.

## 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, and more recent writers will be read in conjunction with materials on the historical settings in which they wrote. Prerequisite: 100 or instructor permission. One semester, 3 credits.

## 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 instructor permission. Cross-listed with SOWK 310. One semester, 4 credits.

## 311 Field Research: Crossing Cultural Boundaries

(Same as ANTH 311) One semester or January, 3-4 credits.

## 314 Statistics

(Same as PSYC 314) One semester, 4 credits.

## 322 Sociology of Culture

Sociological perspectives on the study of cultural practice and representations, with special attention to issues of resistance. Prerequisites: 100 or instructor permission. One semester, 3 credits.

## 340 Social Psychology

(Same as PSYC 352) One semester, 3 credits.

## 342 Micro Sociology

Sociology at the level of experience and interaction, with special emphasis on the ways people make sense of social experience. Prerequisite: 100 or instructor permission. One semester, 3 credits.

## 344 Diverse Identities

(Same as PSYC 354) One semester, 3 credits.

## 350* Modern Society

This course examines forms of social structure, culture, and interaction associated with highly industrialized societies. Particular attention is paid to theoretical explanations of the transformations associated with modernity. Topics addressed may range from the nature of the polity and economy of advanced nations, to the formation of ideas of nature versus culture that dominate the modern west. Prerequisite: 100 or instructor permission. One semester, 3 credits.

## 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. Prerequisite: 100 or instructor permission. One semester, 3 credits.

## 354* Political Sociology

This course is a study of power in the institutions of society, focusing on the state, groups that compete for control of the state, ideologies of state legitimacy, and the relationship of the state and capital. We will also look at how and why states and state policies change over time. We will necessarily examine the ways in which race and ethnicity shape and are shaped by their interaction with the state. Prequisites: 100 or instructor permission. One semester, 3 credits.

## 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. Prerequisite: 100 or instructor permission. One semester, 3 credits.

## 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. Prerequisite: 100 or instructor permission. 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. Prerequisite: 100 or instructor permission. One semester, 4 credits.

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. Prerequisite: 100 or instructor permission. One semester, 3 credits.

## 373 Human Behavior in the Social Environment

(Same as SOWK 373) One semester, 3 credits.

## 374 The Cultural Contexts of Childhood <br> (Same as ANTH 374) One semester, 3 credits.

## 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. Prerequisite: 100 or instructor permission. One semester, 3 credits.

## 383* Social Power and Social Control

This course explores how social theorists understand the forms and exercise of power. It will draw on Marxian, Weberian, and Foucauldian analyses of power, as well as theories of race, gender and sexuality in order to offer both complementary and competing understandings of power. Prerequisite: 100 or instructor permission. Recommended: 302. One semester, 3 credits.

## 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. Prerequisite: 100 or instructor permission. One semester, 3 credits.

## 386 Racial and Ethnic Relations

An examination of central theories and concepts in the field. Specific attention will be paid to 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. Prerequisite: 100 or instructor permission. One semester, 3 credits.

## 387 Life in Minority Environments

(Same as ANTH 387) One semester, 3 credits.

## 404 Topics in Contemporary Sociological Theory

A comparative, in-depth examination of central issues in contemporary sociological thought. Permission. One semester, 3 credits.

## 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.

## 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, 3 credits.

## 410 Advanced Research Seminar

This course is an advanced seminar the topic of which will vary depending on the rotation of faculty members into this course. The course will provide preparation for advanced work in the discipline by ensuring that students are able to design and conduct their own research projects. Prerequisites: 100,302 , and 310 or 311 or instructor permission. One semester, 3 credits.

## 412 Preceptorship

A one semester course designed to engage students in the theory and practice of teaching sociology. This course is appropriate for students intending to teach secondary school or enter a graduate program in sociology. Students participating in the preceptorship will work closely with the faculty teaching introductory courses. By permission only. Variable credits.

## 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.

190, 290, 390, 490 Selected* Topics in Sociology
Variable credits. Permission. May be repeated for credit.

## 295, 395, 495* Independent Studies

Variable credits. Permission. May be repeated for credit.
*Not offered every year.

$A$nthropology 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.

## GUIDELINES FOR A MAJOR THAT INCLUDES COURSES IN 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 Global and Cultural Studies (See Catalog description of Global and Cultural Studies Major).

## GUIDELINES FOR AN INTRA-DEPARTMENTAL MINOR IN ANTHROPOLOGY

A minor requires 18 credits including:
Biological Anthropology, ANTH 200, 3 credits
One course on Peoples and Cultures, from courses ANTH 210 through 214, 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, 3 or 4 credits
Approaches to Social Research, SOC 310, 3 credits
At least one January course in Anthropology.

## COURSE DESCRIPTIONS (ANTH)

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.

## 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, 3 credits.

210 Introduction to Cultural Anthropology 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.

## 211 Peoples and Cultures of 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.

## 212 Peoples and Cultures of Africa

This course is designed to give students an understanding of the diverse cultures of sub-Saharan 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 and Cultures of Native America

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, 3 credits.

## 214 Peoples and Cultures of 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.

## 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.

## 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 cross-cultural communication. One semester or January, 3 or 4 credits.

## 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.

## 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 cross-culturally 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.

## 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 rolepatterning. Sophomore standing or above. One semester, 3 credits.

## 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: at least sophomore standing. One semester, 3 credits.

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.

190, 290, 390, 490* Selected Topics in Anthropology
Permission. Variable credits.

295, 395, 495 Independent Studies in Anthropology<br>Permission. Variable credits. May be repeated for credit.<br>*Not offered every year.

## 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.

asLocial Work is a profession committed to the enhancement of social and human well-being, the alleviation of poverty and oppression, and the promotion of social and economic justice for all. The profession practices in a wide variety of local, national, and global settings including family services, child welfare, corrections, probation, behavioral health and medical centers, drug and alcohol treatment, community organizations, and social policy arenas. With awareness of the major social and technological changes taking place in our world, the Whittier College Social Work program prepares students for entrylevel positions in generalist social work practice where they can effectively address the variety of human welfare needs prevalent in a global 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 a student's learning outcomes in the liberal arts and social work curriculum.
Selected courses are also of interest to students in psychology, sociology, anthropology, 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.

## 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 100, ECON 200, and ANTH 210 or other related courses (ANTH 211-214.), a total of 12 credits.

A total of 43 credits of Social Work is required, including:
SOWK 240: Introduction to Social Work, 3 credits
SOWK 340: Social Work Practice I: Working with Individuals, 3 credits
SOWK 343: Social Work Practice II: Working with Families and Groups, 3 units
SOWK 363: Social Work Practice III: Working with Communities and
Organizations, 3 credits
SOWK 310: Approaches to Social Research, 4 credits
SOWK 364: Social Welfare Policy, 3 credits
SOWK 373: Human Behavior in the Social Environment, 3 credits
SOWK 408: Integrative Seminar, 3 credits
SOWK 412: Social Work Practicum and Seminar I, 4 credits
SOWK 413: Social Work Practicum and Seminar II, 3 credits
SOWK 414: Social Work Practicum and Seminar III, 4 credits
Also required:
SOC 314: Statistics, 4 credits
PSY 222: Biological Bases of Behavior, 3 credits
Recommended for Social Work majors:
SOWK 10: Internship in Human Services
SOWK 100: Issues in Human Services
SOWK 386: Welfare of Children
SOWK 270: Death, Dying and Bereavement
PSYC 372: Abnormal Psychology
SOC 389: Sociology of Gender
SOC 358: Population Problems and Policy
SOC 260: Social Movements
HIST 207: United States since 1865

## 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 18 credits is required, including SOWK 10, 100, 240, and 364; and 6 credits selected from SOWK 340, 343, and 363.

## 10 Internship in Human Services

Sixty hours of supervised internship experience and a weekly seminar focus on the insights and perspectives of working with people. Students have the opportunity to assess and apply social work knowledge, skills and values, collaborate with social service professionals, and explore career options in human service settings. Cross-listed with SOC 14. One semester, 3 credits.

## 100 Issues in the Human Services

An introduction to selected issues in social work issues and generalist practice, including practice with children and families. Values, belief systems, and ethical issues inherent in working with diverse client populations are examined and critically analyzed. January Term, 4 credits.

## 240 Introduction to Social Work

Presents an overview of 1) the profession of social work and its history in the United States; 2) social work values, ethics, and principles; 3) generalist social work practice using the planned change model across a variety of settings and with a diversity of clients; and 4) the process of empowerment and power analysis in working for a socially and economically just society. Includes selfassessment of aptitude for social work. Two semesters, 3 credits.

## 270: Death, Dying and Bereavement

Explores historical and cultural 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. (Cross-listed with SOC 270) Permission. January session, 4 credits.

## 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: SOC 100 or permission. (Cross-listed 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 planned-change approach within an eco- systems framework. Emphasis is given to learning micro-level relationship and evidence-based interviewing skills necessary for culturally competent practice with individuals and families. Social work ethics, values, practice evaluation, and working with populations at risk are major dimensions of the course. Prerequisite: 240 . One semester, 3 credits.

## 343 Social Work Practice II: Working with Families and Groups

This course examines generalist practice with families and groups, while acknowledging personal and client strengths, capacities and resources. Students learn to apply the planned change model to families and groups, including task groups and intervention groups, examine empirically based interventions, and evaluate the effectiveness of their own ethical and culturally competent interventions. Prerequisite: 240 . One semester, 3 credits.

## 363 Social Work Practice III: Working with Communities and Organizations

This course explores generalist social work practice with communities and organizations and introduces practical approaches to taking action. The course examines issues of influence and power in the urban community and the role of political, economic, social, and religious organizations in limiting and/or enhancing individual and group well-being and freedom. Students are introduced to the theoretical and practical knowledge, skills, and values required for macro social work practice (community organizing, planning, policy, and administration). Prerequisite: 240 . One semester, 3 credits.

## 364 Social Welfare Policy and Services

Students examine the history of social work, the history and current structure of social
services, and the role that social policy plays in service delivery. Students learn to analyze social policies that effect local, national, and global social welfare issues and research that relates to competent social service delivery. The course also focuses on strategies that advocate for policy consistent with social work values and skills and that prepare students to work within economic, political, and organizational systems. Prerequisite: ECON 200. One semester, 3 credits.

## 373 Human Behavior and the Social Environment

This course examines the reciprocal relationships between human behavior and social environments. Students analyze theories and other sources of knowledge that address the interactions between and among individuals, groups, organizations, communities, and economic systems that enhance or deter human well-being. This includes theories of biological, cultural, psychological, and spiritual development throughout the human life span. Co-Requisite: PSYC222. One semester. 3 credits.

## 385* Child Abuse and Domestic Violence

Examines multi-dimensional explanations and laws pertaining to sexual and physical child maltreatment and familial violence. Students will explore selected issues related to these psychosocial problems, examine related social policies, explore empirically based culturallycompetent interventions. January or Summer, 4 credits.

## 386 The Welfare of Children

Students enrolled in this course will explore the diverse needs and issues related to child welfare systems of care. The course provides an overview of relevant knowledge, theories, values, skills, and social policies related to competently working with children and their families. One semester, 3 credits.

## 408 Integrative Seminar

Students will assess their attainment of the Social Work Program Objectives, which are derived from the CSWE Educational Policy and Accreditation Standards. Students will also examine and define the contributions that the liberal education curriculum, co-curricular activities and other life experiences have enhanced their development as a social work major. This analysis is presented in the format of an Integrative Portfolio, and includes a paper
in the major to be presented to social work colleagues and professionals. Senior standing. Only for social work majors. Permission. One semester, 3 credits.

## The Social Work Practicum and Seminar

The sequence (412, 413, and 414) provide students in the major with a year long internship (a minimum of 400 hours during the academic year), approximately two full days, 16 hours a week) in a social service organizational setting under joint College and agency planning and supervision.

## 412 Social Work Practicum and Seminar I

The practicum and required seminar (2 or 2.5 hours per week) is designed to help students apply and integrate the knowledge, values and skills necessary for beginning professional practice and evaluate their own practice and professional development. Senior Standing. Only for social work majors. Permission. Prerequisite: 240. Fall semester, 4 credits.

## 413 Social Work Practicum and Seminar II

Advanced level internships in community agencies (usually a continuation at the same placement agency as 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. Senior Standing. Only for social work majors. Permission. Prerequisite: 412. January, 3 credits.

414 Social Work Practicum and Seminar III Continuation of 412 and 413. Practicum, two full days ( 16 hours per week) and required seminar, 2 or 2.5 hours per week. Senior Standing. Only for social work majors. Permission. Prerequisite: 413 . Spring, 4 credits.

> 190, 290, $390,490^{*}$ Selected Topics in Social Work
> Variable credits. Permission. May be repeated for credit.

295, 395, 495 Independent Studies in Social Work
Variable credits. Permission. May be repeated for credit.

[^6]
## THEATRE AND COMMUNICATIONS ARTS

Jennifer Holmes

Brian Reed, Chair
Richard Cheatham

$\tau$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 and Communication 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.

## GUIDELINES FOR A MAJOR IN THEATRE AND COMMUNICATION ARTS

Total Requirements: 31-34 credits
Department Core Requirements for all majors (25-28 credits):

- Theatre Practicum, THEA 50, 1 credit per year of residence.
- Introduction to Theatre, THEA 150, 3 credits
- Acting I, THEA 210, 3 credits
- Introduction to Design and Technology, THEA 240, 3 credits
- Shakespeare, THEA 328, 3 credits
- Scenic Design, THEA 340, or Stage Lighting, THEA 345, or Costume Design, THEA 347, 3 credits
- World Theatre, THEA 372 (A and B), 6 credits
- Senior Project, THEA 485, 3 credits


## Additional Requirements:

Theatre Arts—Performance Emphasis (6 credits):

- Directing I, THEA 410, 3 credits.
- Voice and Movement for the Actor, THEA 220, or Advanced Voice and Movement for the Actor, THEA 225, or Acting II, THEA 310, 3 credits.

Theatre Arts—Design/Technology Emphasis (6 credits):

- Two additional courses from Drawing and Drafting for the Theatre, THEA 245;

Painting for the Theatre, THEA 246; Scenic Design, THEA 340; Stage Lighting, THEA 345; Costume Design, THEA 347.

## GUIDELINES FOR A MINOR IN THEATRE AND COMMUNICATION ARTS

A minor requires 20 credits, including THEA 50, 2 credits; Introduction to the Theatre, THEA 150, 3 credits; THEA 210, 3 credits; THEA 240, 3 credits; and six credits in courses numbered above 300 .

## COURSE DESCRIPTIONS (THEA)

## 004 Pilates

Based on the work of Joseph Pilates, this course focuses on body awareness through a series of specific exercises that simultaneously strengthen and stretch the body. The Pilates Method encourages a mind and body partnership, establishing inner balance, physical economy and grace. Previous exposure to Pilates is not necessary. May be repeated for credit. One semester, 1 credit. (Same as KLS 004)

## 005 Yoga

Drawing from various Yoga practices this beginning to intermediate yoga course focusing on harmonizing mind, body, and spirit while strengthening, and lengthening muscles and muscle groups. Various breathing techniques, physical postures, and asanas will be practiced, as well as relaxation and meditation exercises. Previous exposure to yoga is not necessary. May be repeated for credit. One semester, 1 credit. (Same as KLS 005)

## 50 Theatre Practicum

Participation in two major productions, either as an actor or as a member of the stage crew. Actors must audition and are cast by the director of each production. Possible stage crew assignments include scenery construction and painting, properties preparation, stage lighting preparation, costume construction, sound recording, and serving on backstage crews during rehearsals and performances. Enrolled students should contact the instructor at the very beginning of the semester to
arrange their production assignments. May be repeated up to 5 credits. One semester, 1 credit.

## 60* Theatre for Youth Ensemble

This one-credit course supports the development of scripts and adaptations via collaboration for The Whittier College Theatre for Youth Ensemble (The Magic Beans). This course also supports the development of workshops for children exposing them to and engaging them in theatrical processes. May be repeated for credit. One semester, 1 credit.

## 100* Theatrical Creativity

Sources and methods of creative expression through theatrical games, concentration, objects, and sensitivity exercises. One semester, 3 credits.

## 101 Essentials of Public Speaking

Theory and practice of the fundamental principles of public speaking. One semester, 3 credits.

## 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.

## 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.

## 170* Fundamentals of Cinema

This course provides a survey of the history and criticism of the cinema. It provides an introduction to the aesthetics and language of film. It also understands film as an artistic expression, an economic product, and a social text. Lectures and discussions are supplemented by class screenings. One semester, 3 credits.

## 210 Acting I

Various techniques of actor preparation and role creation; scene work and participation in laboratory theatre productions. One semester, 3 credits.

## 220* Voice and Movement for the Actor

Drawing on various developmental techniques, including Linklater, Berry, Spolin, and Feldenkrais, this course utilizes the classroom as a laboratory exploring voice and movement for the stage. One semester, 3 credits.

## 225* Advanced Voice and Movement for the Actor

Building on foundational work explored in Voice and Movement, this advanced course incorporates improvisation and characterization, culminating in a final performance of non-fiction. Prerequisite: Either 220, 210 or permission of instructor. One semester, 3 credits.

## 240 Introduction to Design and Technology

An introduction to design and technology for the theatre arts. Most of the course focuses on three design specialties: scenery, lighting, and costumes for theatre, with some additional attention given to design for film and television. Concurrent enrollment
is required in Theatre 240L, the laboratory component of this course, which will be arranged by the instructor on an individual student basis (usually 2 hours per week). Through the laboratory component, students will participate in the construction of scenery and properties for two productions during the semester. One semester, 3 credits.

## 245* Drawing and Drafting for the Theatre

A thorough introduction to drawing and drafting techniques for design and technical production in the theatre, including some use of computer-aided design (CAD). May include a laboratory component for major productions. One semester, 3 credits.

## 246* Painting for the Theatre

An introduction to the study and practice of both scene painting for the theatre and the use of water-based painting media in creating scenic and costume design renderings and scene painter's elevations. The course may include a laboratory component for major productions. Laboratory fee. One semester, 3 credits.

## 270* Film Genre

This course surveys the major films, filmmakers, themes, and issues of a major film genre. The genres will vary from semester to semester and during any given term, the genre might be the musical, gangster, western, film noir, or horror films. Lectures and discussions are supplemented by class screenings. May be repeated for credit. January, 4 credits

## 275* Film Movements

This course explores the major films, filmmakers, themes, and issues of a particular critical fashion or period in the history of cinema. During one term, the course may, for example, cover the Hollywood Renaissance, Italian Neo-Realism, or French New Wave. As in THEA 270, the subject matter will vary from term to term. Lectures and discussions are supplemented by class screenings. May be repeated for credit. January, 4 credits

## 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.

## 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.

## 300* Paradigm Shifts in the Arts

What is the function of art in societies? How have the arts reflected, created, or predicted paradigmatic shifts in societies? This interdisciplinary course focuses on the interconnectedness of the arts and society in the past 100 years. Studying works of art that have had violent and negative reactions when first presented to the public, we will examine the deeply embedded beliefs these works of arts challenged. One semester, 3 credits.

## 310* Acting II

Scene studies from modern and classical plays are used in developing techniques for building the actor's character. Prerequisite: 210 or permission. One semester, 3 credits.

## 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. One semester, 3 credits.

## 325* Documentary Video Production

Video production of a documentary. Prerequisite: 320. One semester, 3 credits

## 328 Shakespeare

(Same as ENGL 328) One semester, 3 credits.

## 330* Playwriting

General analysis of dramatic structure and of student-written scenes culminates in completion of a one-act play. One semester, 3 credits.

## 340* Scenic Design

Study and practice of scenic design techniques, including the development of visual research sources, freehand drawing and mechanical drawing exercises, and scale model construction as applied to design projects for specific plays. Some attention will be given to the basic visual elements of design, to the history of stage design, to the use of computeraided design software, and to scenic design for film and television. One semester, 3 credits.

## 345* Stage Lighting

Study of stage lighting technology and stage lighting design theory and practice. Students will develop several lighting design projects. They also will assist in the preparation of the stage lighting for one or two theatre productions during the semester. One semester, 3 credits.

## 347* Costume Design

Study and practice of costume design techniques, including the development of visual research sources, practicing freehand drawing and watercolor painting techniques, and drawing and painting of costume sketches for several plays. Some attention will be given to the basic visual elements of design, to choosing appropriate costume fabrics, and to costume history and period styles. One semester, 3 credits.

## 372A* World Theatre

Part one of a two-semester survey, integrating a multi-cultural history of world theatre, studying performance traditions and dramatic literature. The course encompasses the foundations of theatre via oral traditions and rituals, Aristotle and Greek theatre, and the early and late Renaissance periods. Emphasis on the importance of historical and literary research is key in formulating critical analysis of period and production and incorporating these insights into research papers. (Does not have to be taken in sequence.) Prerequisite: 150 or permission. One semester, 3 credits.

## 372B* World Theatre

Part two of a two-semester survey, integrating a multi-cultural history of world theatre for the past 350 years. The class traces the development of theatre from the comedy of Molière through modern plays of Ibsen and Pirandello, to the post-modern works of contemporary avant-garde theatre.
Emphasis on the importance of historical and literary research is key in understanding the production of theatre, its impact on audience, and its production of meaning throughout the centuries. (Does not have to be taken in sequence.) Prerequisite: 150 or permission. One semester, 3 credits.

## 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.

## 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: 310 or permission.

## 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: 210 and 240 or permission. One semester, 3 credits.

## 415* Play Directing II

Continuation of 410 , emphasizing styles of production. Prerequisite: 410 or equivalent. One semester, 3 credits.

420* Directed Study in Video Production For advanced students wishing to produce independent productions. Prerequisite: 320 and permission of instructor. One semester, 3 credits.

## 485 Senior Project

Arranged as a directed study, this course is the capstone experience for all Theatre and Communication Arts majors. Each student will complete a major project either in directing, acting, design, technical production, stage management, or critical research. The project will entail both analytical and creative endeavor and will result in some kind of public presentation or performance. The students will also document their work on the projects justifying the choices and/or conclusions they made. This project is designed to satisfy the college "Paper in the Major" requirement. Prerequisite: Senior status as a Theatre and Communication Arts major. One semester, 3 credits.

190, 290, 390, 490* Selected Topics in Theatre
Topic and number of credits to be determined by the instructor. May be repeated for credit.

## 295, 395, 495 Independent Studies

Topic, number of credits, and times by arrangement. Permission of instructor is required. May be repeated for credit.

[^7]Joyce Kaufman (Political Science), Associate Academic Dean and Director of the Whittier Scholars Program

Ria O'Foghludha (Art and Art History), Associate Director

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" section of the catalog, or contact the Whittier Scholars Program Office, located in Wardman Hall.

## COURSE DESCRIPTIONS (WSP)

## 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.

## 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.

## 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.

## 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

## 499 Senior Project

Design Board approval and Director's permission required. Variable credits.

Michael J. McBride (Political Science), Director

## Whittier-in-Copenhagen

Whittier 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. An updated copy of the Copenhagen course listings can be obtained in the Office of International Programs.

## Whittier-in-South India

Whittier 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 opportunities 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, Iceland, 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 locations:

Argentina
Australia
Austria
Chile
China
Costa Rica
Cuba
Czech Republic
Denmark
Dominican Republic
Ecuador
Egypt
England
France
Germany
Greece
Hungary
Iceland

India
Ireland
Israel
Italy
Japan
Mexico
Netherlands
New Zealand
Poland
Puerto Rico
Russia
Scotland
South Africa
Spain
Sweden
Switzerland
Thailand
Wales

Gisareer preparation is an important part of a Whittier education. The fields of law, education, social work, 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.

## 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 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 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, Dr. Seamus Lagan, or from our web page at www.whittier.edu/engineering/default.htm.

## Pre-Health Sciences other than Pre-Physical Therapy

Whittier provides excellent preparation in the basic fields required for admission to accredited professional schools. There is a Health Science Advisory Committee of faculty members which works closely with each student. Students should plan to complete a Bachelor's degree in a specific major before applying to the school. Although it is possible to enter some schools upon completion of 90 semester credits, most beginning health science students have completed four years of undergraduate work. It is important that each student determines the specific courses required for the schools to which application is made. Certain minimum requirements are common to most medical, dental, optometry, chiropractic
and veterinary schools. These include one year of each of the following: biology, inorganic chemistry, organic chemistry, physics and English. Strongly recommended courses include: math (often through calculus), additional biology (i.e. Genetics, embryology), social and behavioral sciences, and biochemistry. Other recommended courses are: anatomy, physiology, microbiology, and quantitative analysis.
Students intending to pursue a health science program should contact an advisor in the Biology or Chemistry Departments immediately after admission to Whittier College to plan their curricula and to determine the specific requirements of the schools they are considering. In addition, participation in the Whittier College Health Professions Shadowing program is encouraged.

## 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, and sociology. 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.

## 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 kinesiology and leisure science (see kinesiology and leisure science 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 kinesiology and leisure science). Recommended courses: biomechanics, exercise physiology, movement anatomy, motor control, ethics, human development.

Recreation Therapy: A major in kinesiology and leisure science with the Sport and Recreation Management emphasis is recommended for those who may want to obtain their recreational therapy certificate (see kinesiology and leisure science major, recreation courses).

## Social Work

The Social Work Program has a unique role in the undergraduate curriculum of Whittier College. Its mission is consistent with the historical Quaker values of service, concern for the well being of individuals, and respect for diversity in a global society, and the attainment of social and economic justice for all.. 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, values, 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 43 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 (18 credits).
Students are urged to consult the Social Work Program advisors in the Department of Sociology, Anthropology and Social Work for more information.

## 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, and the Single Subject (secondary) teaching credential.
Multiple Subject credential candidates may complete an elementary subject matter 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. Currently, multiple subject teacher candidates are required to pass the CSET (California Subject Examinations for Teachers) to document subject matter expertise. A minor in Elementary Education is also available.
Single Subject credential candidates at Whittier may earn teaching authorization in such areas as English, history, 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-and-one half years.

## Urban Studies

There 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 pre-professional 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 advisory committee members are available to help students design a program suited to particular areas of interest and career objectives.

## 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.

## 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 90 units.
This program has been approved by the Whittier College Faculty and will be implemented upon approval by the Whittier Law School Faculty.

Fritz Smith (Mathematics), Associate Dean of Faculty and Coordinator of the Summer Program

TWhittier 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 13 .

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.

## URBAN STUDIES

Frederic A. Bergerson (Political Science)<br>Rafael Chabrán (Modern Languages and Literatures)<br>Claudia Dorrington (Social Work)<br>Caroline Heldman (Political Science)<br>Leslie Howard (Sociology)<br>Hilmi Ibrahim (KLS)<br>Joyce P. Kaufman (Whitter Scholars Program)<br>Seamus Lagan (Physics and Astronomy)<br>Danilo Lozano (Music)<br>Robert Marks (History)<br>Paula Radisich (Art History)<br>Elizabeth Sage (History)<br>Cheryl C. Swift (Biology)<br>Paula Sheridan (Social Work)<br>Andrew Wallis (Modern Languages and Literatures)

herhere 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 disciplines other than those 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.

Donald W. Bremme<br>Kathleen S. Ralph, Chair<br>Irene Serna<br>Judith T. Wagner<br>Claudia Ramirez Wiedeman

(1)hittier'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. In-depth study of various pedagogical 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.

## 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); and 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).
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. 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.

## 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 core courses.

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. Passage of CBEST (California Basic Educational Skills Test)
3. Transcripts documenting the following:

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

4. Applicants who meet the above qualifications will be contacted for an interview.

## MASTER OF ARTS IN EDUCATION

Whittier College offers the Master of Arts in Education. Candidates must complete 33 units beyond the Bachelor of Arts (excluding student teaching). All 33 units must be part of an approved Educational Design for the Master of Arts in Education. During the last three semesters of study, students take EDUC 600: Introduction to Educational Inquiry (3 credits), EDUC 602: Action Research I ( 4 credits), and EDUC 604: Action Research II (3 credits).

## 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 23 upper division/graduate semester units with a grade point average of 3.5 or higher.
4. An Educational Design proposal that has been developed by the candidate and the Department of Education and Child Development.
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.

## 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 EDUC 600.) The Educational Design consists of the following:

1. Analyzing Educational Research(EDUC 600).
2. Electives to total 33 units (minimum)
3. Completion of an action research project in accordance with department policies, Action Research I (EDUC 602), Action Research II (EDUC 604).
4. A maximum of 9 units may be transferred from other institutions

All requirements for the M.A. must be completed with a 3.0 minimum GPA; no course work below a "B-" 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 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.

## GENERAL INFORMATION

Post-baccalaureate (graduate) students who meet all prerequisite and entrance requirements can complete all credential and Master's program requirements through evening and summer courses. Procedures and requirements for postbaccalaureate students differ from those for undergraduates. These procedures and requirements are described in separate documents available from the Department. Post-baccalaureate students should obtain program information and advisement from the Department as early as possible for admission to summer and fall cohorts.

For both undergraduate and graduate students, a grade of B-or above is required in each teacher preparation course in order to enroll in the next course(s) in the teacher-preparation program sequence. When a grade below B- is earned in a course, a student must do the following before enrolling in any other teacher preparation course:

1. Petition the department for permission to retake the course in which a grade below B- was earned, and if permission is granted
2. Retake the course and earn a grade of B- or above.

Petitions take the form of a letter to the Department Chair. The petition may also request permission to proceed with the teacher preparation course sequence before retaking a required course. Such requests are granted only rarely in exceptional cases. More information on petition letters and the petition process is available in the Department of Education and Child Development.

## 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.

## Study Load

For Graduate Students, a minimum full-time study load is 9 credit hours per term.

## PREREQUISITES AND PROFESSIONAL PREPARATION REQUIREMENTS FOR TEACHING CREDENTIALS

The teacher education programs for students pursuing the Multiple Subject (elementary) and Single Subject (secondary) Teaching Credentials include planned prerequisites and professional preparation courses. Students should plan their undergraduate programs so as to take the prerequisites during their freshman and sophomore years. Professional preparation requirements are not open to freshmen or sophomores. Students should take the sequence of required professional preparation courses in the junior year and after. The prerequisites and professional preparation courses for the Multiple Subject (elementary) and Single Subject (secondary) Teaching Credentials are listed on the next page.

## GRADUATE COURSES

The following courses are open to graduate students. Most require admission to the Teacher Credentialing Program. In general these courses are not open to undergraduates. Exceptions are made only through petition to the faculty of the Department.

## GUIDELINES FOR THE PRELIMINARY MULTIPLE SUBJECT TEACHING CREDENTIAL:

Prerequisites:
Introduction to Human Development, CHDV 105, 3 credits
Sociological and Anthropological Perspectives on Education,
EDUC 300/500, 3 credits
Movement Education in the Elementary School, KLS 320, 3 credits
Required professional preparation courses:
Teaching Diverse Learners, EDUC 501, 3 credits
Learning and Learners, EDUC 506, 3 credits
Literacy Development in the Elementary School, EDUC 502, 3 credits
Second Language Acquisition and Methodology, EDUC 504, 3 credits
Multiple Subject Curriculum and Pedagogy: Integrating Language Arts,
History-Social Science, and Visual-Performing Arts, EDUC 505, 3 credits
Multiple Subject Curriculum and Pedagogy: Math and Science, EDUC 507, 3 credits.

Promoting Students' Health \& Safety, KLS 509, 1 credit
Working with Special Populations I \& II, EDUC 510 \& 511, 1 credit each
Student Teaching/Internship, EDUC 520, 12 credits. (To qualify for student teaching or internship, students must have completed all prerequisites and subject matter requirements. Consult Department materials for a complete list.)
Professional Development Seminar, EDUC 521, 1-2 credits. (Must be taken concurrently with Student Teaching/Internship.)

For the Preliminary Single Subject Teaching Credential:
Prerequisites:
Introduction to Human Development, CHDV 105, 3 credits or Psychology of Adolescence, PSYC 244, 3 credits

Sociological and Anthropological Perspectives on Education,
EDUC 300/500, 3 credits
Required professional preparation courses:
Teaching Diverse Learners, EDUC 501, 3 credits
Learning and Learners, EDUC 506, 3 credits

Teaching Content Area Literacy, EDUC 503, 3 credits
Second Language Acquisition and Methodology, EDUC 504, 3 credits
Single Subject Curriculum and Pedagogy I, EDUC 508, 3 credits
Single Subject Curriculum and Pedagogy II, EDUC 509, 3 credits
Promoting Students' Health \& Safety, KLS 509, 1 credit
Working with Special Populations I \& II, EDUC 510 \& 511, 1 credit each Student Teaching/Internship, EDUC 520, 12 credits. (To qualify for student teaching or internship, students must have completed all prerequisites and subject matter requirements. Consult Department materials for a complete list.)

Professional Development Seminar, EDUC 521, 1-2 credits. (Must be taken concurrently with Student Teaching/Internship.)

## COURSE DESCRIPTIONS (EDUC)

## 500 Sociological and Anthropological Perspectives on Education

(Same as EDUC 300.) Examines the sociocultural and historical contexts in which learning and development occur. Topics include the social and cultural conditions of K-12 schools, the historical and cultural traditions of major cultural and ethnic groups in California society, and how the background experiences, languages, skills and abilities of members of these groups interact with schools' conditions and practices. Explores concepts, principles, and values necessary to create and sustain an equitable classroom community and a just, democratic society. Fieldwork required. One semester. 3 credits.

## 501 Teaching Diverse Learners

(Same as EDUC 401.) Provides theoretical and practical knowledge necessary for working with culturally diverse K-12 students, families, and communities. Includes analysis of alternative viewpoints on current educational goals, practices, and issues, as well as methods for building a just, democratic classroom culture. Requires 20 hours of fieldwork. Prerequisites or Co-enrollment: EDUC 300, CHDV 105, and permission. One semester, 3 credits.

## 502 Literacy Development in the Elementary

 School(Same as EDUC 402.) Research 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 word identification skills and comprehension strategies, literature-based instruction, ongoing diagnostic strategies/interventions, content area literacy, and organizing for instruction. Requires 20 hours of fieldwork. Prerequisites or Co-enrollment: 401/501 and permission. One semester, 3 credits

## 503 Content Area Literacy

(Same as EDUC 403.) Research and methodology for preparing secondary teachers to teach content-based reading and writing skills to all students. Topics include: reading comprehension skills, vocabulary, strategies for promoting oral and written language, phonological/structure of the English language, and writing across the curriculum. Requires 20 hours of fieldwork. Prerequisites or Co-enrollment 401/501. One semester, 3 credits

## 504 Second Language Acquisition \& Methodology

(Same as EDUC 404.) Examines native and second language development in theory and as applied to multicultural/multilingual educational contexts, helping prospective teachers develop a sound understanding of first (L1) and second language (L2) processes. Focuses on the socio-cultural, historical, political nature of language learning in the classroom and how the educational system addresses the needs of English Language (EL) Learners. Requires 20 hours of fieldwork. Prerequisites or Co-enrollment: 401/501, $402 / 502$, or $403 / 503$. One semester, 3 credits.

## 505 Multiple Subject Curriculum \&

 Pedagogy: Integrating Language Arts with History-Social Science and the Visual \& Performing Arts Research and methodology for integrating language arts with social studies and the visual and performing arts in linguistically and/or culturally diverse elementary classrooms. Topics include: writing in the content areas, literature-based instruction, use of simulations, case studies, cultural artifacts, cooperative projects, and student research activities, assessing learning, and organizing for instruction. Fieldwork required. Prerequisites or Co-enrollment: graduate standing, 401/501. One semester, 3 credits.
## 506 Learning and Learners

(Same as EDUC 406.) Examines major concepts, principles, and research associated with theories of human thinking, learning, and achievement, with special attention to the social-cultural nature of learning, the role of students' prior understandings and experiences, and the importance of homecommunity funds of knowledge. Provides experience in using research-based concepts and principles in designing, planning, and adapting instruction for K-12 students. Requires 20 hours of fieldwork. Prerequisite: 401/501. One semester, 3 credits.

## 507 Multiple Subject Curriculum \& Pedagogy: Mathematics and Science

Examine the components of a well-balanced program of mathematics and science instruction. Topics in math curriculum and pedagogy include computational and procedural skills, conceptual and logical understanding, and problem-solving skills. Topics in science curriculum and pedagogy include the major concepts, principles, and investigations in science (physical, life, earth); investigation skills; how to connect science across other subject areas. Fieldwork required. Prerequisites: graduate standing, 401/501. (Concurrent enrollment in 502, 504, and/or 506 is possible with departmental permission.) One semester, 3 credits.

508 Single Subject Curriculum \& Pedagogy I Introduction to secondary teaching in cultural and linguistically diverse secondary schools and classrooms for Single Subject candidates in core academic subjects. Topics include:
knowing and understanding state-adopted academic content standards for students; standards-based unit and lesson planning strategies focused on learning outcomes; alternative methods and strategies for assessing students' entry-level knowledge and skills, progress monitoring and summative assessment; using technology in the classroom; developmentally appropriate instruction; laws, student and family rights, professional ethics and responsibilities. Fieldwork required. Prerequisites: graduate standing, 401/501. (Concurrent enrollment in 503, 504, and/or 506 is possible with departmental permission.) One semester, 3 credits.

509 Single Subject Curriculum \& Pedagogy II Advanced instructional planning and teaching methods for Single Subject candidates in core academic subject areas, with separate course sections for candidates in the areas of (1) English or history-social sciences and (2) mathematics or science. Focuses on appropriate subject-matter-specific methods for planning and teaching a comprehensive, program that enables students to achieve state-adopted academic content standards. Topics for candidates in all subject areas include supporting English language learners, responding to student diversity, developing a wide repertoire of teaching methods, and effectively using instructional resources including technology. Fieldwork required. Prerequisites: graduate standing, 401/501, $403 / 503,404 / 504,406 / 506$, and 508. One semester, 3 credits.

## 510 Working with Special Populations I

For elementary and secondary preliminary credential candidates, this course provides an introduction to working with special needs students in the general education classroom. Topics include State and Federal laws pertaining to exceptional populations; referral and Individualized Educational Program (IEP) processes; assessment of the learning and language abilities of special population students; and issues of social integration of students with special needs. Fieldwork required. Prerequisites: graduate standing and 501. One semester, 1 credit.

## 511 Working with Special Populations II

For elementary and secondary preliminary credential candidates, this course builds upon EDUC 510. Topics include the major categories of disabilities, differentiated teaching strategies, and appropriate instructional materials and technologies for working with special-needs students in general education classrooms. Fieldwork required. Prerequisites: graduate standing, 510. January, 1 credit.

## 520 Student Teaching/Internship

Carefully planned and supervised teaching experiences in school programs and grade levels selected by the Department to meet requirements for either the California Preliminary Multiple Subject or California Preliminary Single Subject Teaching Credential. Hours arranged. Concurrent enrollment in EDUC 521 required. Prerequisites: Acceptance to Credential Candidate Status and others indicated in Department materials. Please consult the Department. One semester, 6 or 12 credits. May be repeated for credit.

## 521 Professional Development Seminar

A professional development seminar for traditional and intern student teachers, this course emphasizes (1) continued professional growth through reflection on one's teaching practices and (2) developing understanding of classroom and school procedures. Topics include: establishing a positive climate for learning; using developmentally appropriate teaching practices; using instructional time effectively; communicating effectively with families and promoting family involvement in students' learning; working collegially with all staff; and exercising the professional, legal, and ethical responsibilities of teachers. Corequisite: Concurrent enrollment in 520 . One semester, lcredit. May be repeated for credit.

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

Advanced workshop in curriculum development, teaching strategies, and learning materials in contemporary history-social science education as described in the State of California Framework and academic content standards for students. Prerequisite: 505. One semester, 3 credits.

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

Advanced workshop in curriculum development, teaching strategies, and learning materials in contemporary science education as described in the State of California Framework and academic content standards for students. Prerequisite: 507. One semester, 3 credits.

## *568 Curriculum and Procedures for Teaching Mathematics (K-8)

Advanced workshop in curriculum development, teaching methods, and learning materials to foster learners' understanding of numbers, numeration, relations, operations, measurement, geometry, and problem solving in accordance with the State of California Framework and academic content standards for students. Emphasizes active learning through manipulation of objects and integration of the mathematics curriculum with other content areas. Prerequisite: 507.

## *570 Curriculum and Procedures for Teaching Art ( $\mathrm{K}-8$ )

Advanced workshop in a variety of media and methods for teaching, displaying, and evaluating K-8 students' artwork in accord with State of California Framework and academic content standards for students. Prerequisite: 505 or permission. One semester, 3 credits.

## 580 Instructional Development and Technology

For those pursuing the California Professional Multiple Subject or Professional Single Subject Teaching Credential (Level II), this course is taught through both (1) face-to-face sessions in a computer-equipped classroom and (2) online interaction using a variety of computerbased collaborative tools (enriched "chat room" environment, threaded discussion groups, web postings, and others.). Includes a self-study to identify areas for instructional improvement that both the candidate and the school site share and development of plan to improve the use of computer-based technology in the area(s) identified in self-study. One semester, 3 credits.

## 590 Selected Topics

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

600 Analyzing Educational Research
With guidance, students learn about theoretical frameworks of research in education, as well as, qualitative, quantitative, and action research designs. This course provides a systematic study and analysis of current research and research methods for conducting action research projects. This course acquaints students with the literature, terminology, procedures and design of research in education in order to become a more sophisticated critical consumer of education research. Prerequisites: Departmental permission and advancement to full graduate standing/research sequence. 3 units.

## 602 Action Research Project I

With guidance, students identify, develop, and begin to pursue an action research project that is personally meaningful and contextually relevant. The project includes both (1) a plan for action designed to improve practices or conditions in one's own educational setting (classroom, school, community) and (2) a plan for documenting the process and the results of the action plan. In 602, students formulate and design their projects. Upon approval, they implement the action plan and begin inquiry. Prerequisites: 600 and permission. Fall Semester plus January Term. 4 credits.

## 604 Action Research Project II

Building upon work initiated in 602, students continue their action plans and documentation. They share evolving data with one or more professional colleagues and stakeholders in the action effort. In a written report, students use inquiry data to interpret, explain, and reflect upon the results and implications of the action plan. They also present their results in at least one public forum, as determined in consultation with the instructor and professional colleagues. Prerequisites: Must be taken immediately after successful completion of 602. 3-6 credits.

606 Action Research Project Continuation
Completion of the action research project for those students unable to complete the research requirements in one semester. A continuation fee is assessed. 0 credits.

## 607 SPSS Workshop

For students engaged in Master's thesis research, this course provides working knowledge of SPSS data analysis software. January or summer, 1 credit.

## 610 Special Thesis Research

Individualized research with faculty member. Prerequisite: 600 and permission. Two semesters, 3 credits each. May be repeated for credit.

## Additional Courses Offered

## KLS 509* Promoting Students' Health and Safety

An examination of the major laws, concepts, and principles related to student health and safety and a discussion of strategies that foster student health and contribute to a healthy learning environment. Topics include: impact of health on academic achievement, student behaviors which foster or compromise their health and safety; common chronic and communicable diseases; strategies for encouraging good nutrition; physiological and sociological effects of alcohol, narcotics, drugs, and tobacco. One semester, l credit.

## WHITTIER LAW SCHOOL

## THE SCHOOL, TRADITIONS AND GOALS

Olhittier Law School, begun in 1975, and rededicated in 1998 at its present state-of-the-art 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 evening programs, and an accelerated Spring Admission program. Students may specialize in and, upon graduation, receive Certificates in Children's Rights, Intellectual Property Law, International and Comparative Law, and concentrations in Criminal Law, and Business Law. The Law School also offers foreign exchange study opportunities with the University of Paris X, the University of Cantabria in Santander, Spain and the University of Sevilla, Spain. The Law School hosts five summer abroad programs in France, Spain, Israel, the Netherlands, and China, 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.

## 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 facility sits on 130,000 sq. ft. and 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 Counties.

## 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 mid-year admission program begins in January in addition to the
regular Fall Admission program. An Academic Success Program provides a number of academic support programs for students of varying needs, including a Summer Program for admittees who have overcome significant obstacles in achieving an education, a full-year first-year program emphasizing study skills, and exam-taking skills, individual one-on-one academic counseling, and an Early Bar Preparation program.
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 Center for International and Comparative Law prepares students for employment in law firms and public interest organizations that have an international dimension to their work. Each of the three Centers offer Fellowships, offer a specialized legal writing skills course, provide externship opportunities, and host a colloquia series.
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 parttime 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.

## 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 selfdiscipline, 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 write to the Director of Admission at Whittier Law School, 3333 Harbor Blvd., Costa Mesa, CA 92626 or contact by phone at 714-444-4141 ext. 121

$\tau$uition, 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. Tuition, room, and board fees for the January Interim are included in the fall charges. If, however, a student is enrolled for only the spring semester, and not the fall, tuition charges for January Interim will be assessed at the per credit hour fee and room/ board on a pro-rated schedule.

## 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.

## 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 and upon approval from the Dean of Students. 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.

## CANCELLATION OF CHARGES AND FEDERAL TITLE IV REFUND POLICY

Since Whittier College makes faculty engagements and other commitments for the entire year, the following tuition cancellation schedule has been established so that students share the cost when it is necessary for them to drop a course or withdraw from the College. These commitments are not subject to change, even though the number of students may vary. For this reason, no deviations from the tuition cancellation schedule will be made. This policy applies to all undergraduate and graduate students who withdraw or take a leave of absence, whether or not they have federal Title IV financial aid.

## Withdrawal or Leave of Absence Process

Students who plan to withdraw or take a leave of absence from Whittier College must contact the Dean of Students office immediately. A student is not considered on leave or to have officially withdrawn from the College until the student submits a completed and signed Withdraw or Leave of Absence Form to the Dean of

Students office. If the Withdraw or Leave of Absence Form is not submitted on a business day, the form will not be processed until the next business day. This date will also be used to calculate tuition cancellations whenever applicable.
Students who fail to notify the Dean of Students office of their withdrawal or leave of absence will not qualify for tuition cancellation of any kind.
Upon approval from the Dean of Students, notification of the withdrawal will be forwarded to the Student Financing Office, the Business Office and the Registrar to assure timely adjustments to student accounts.

## Cancellation of Institutional Charges

Based on the date of the withdrawal or leave of absence from the College, a student may receive a pro-rated cancellation of that semester's direct costs for tuition, room and board. Please see the Living License Agreement, generated by the Office of Residential Life, for the schedule of room and board fees and withdraw dates. Indirect costs such as fees, insurance and book purchases will not be subject to proration or refund.

## Tuition cancellation schedule

Withdrawal Date
During week 1
During week 2
During week 3
During week 4
During week 5
During week 6
After Week 6

Policy
$100 \%$ of tuition will be cancelled
$90 \%$ of tuition will be cancelled
$80 \%$ of tuition will be cancelled
$70 \%$ of tuition will be cancelled
$60 \%$ of tuition will be cancelled
$50 \%$ of tuition will be cancelled
$0 \%$ of tuition will be cancelled

For Summer Sessions, tuition cancellation policy will be applied based on the same schedule. However, the number of weeks in the semester is replaced by the number of days in the session. For example, week 1 will be replaced by first day of class, week 2 is equivalent to second day of class, week 3 equals third day of class etc....
If a student is suspended, dismissed, expelled or asked to leave the College for any reason the student is not eligible for tuition, room, board, insurance, or fees cancellation

## Return of Title IV Funding - Financial Aid

When a student withdraws or takes a leave of absence from the College, his or her federal financial aid must be returned to the government. The date of withdrawal or leave of absence Whittier College uses for Return of Title IV Funds shall be the date the student submits a completed and signed Withdraw or Leave of Absence Form to the Dean of Students office. The Office of Student Financing (OSF) will
apply federal, state and institutional policy to determine the amount of funding - if any - that must be returned to the Department of Education, as well as any entity of student or parent aid assistance programs.

## Title IV Funds include the following programs:

Pell Grants
Federal Supplemental Educational Opportunity Grants (FSEOG)
Stafford Loans
Perkins Loans
Parent/PLUS Loans

When calculating the return of federal aid, Whittier College uses the Department of Education's formula and software to arrive at the amount that must be returned upon a student's withdrawal or leave of absence. A copy of this calculation worksheet will be included in the student's file and can be forwarded to the student upon request. The percentage of Title IV assistance earned will be equal to the percentage of the semester completed by the student, when said percentage is less than $60 \%$. If a student withdraws after the completion of $60 \%$ of the semester, the percentage of aid earned during this time will be $100 \%$. For more information, please $\log$ on to www.ed.gov and search "Return of Title IV".
Federal Work Study funds are excluded from the return of Title IV process.
However, upon notification of withdrawal a student will forfeit his or her remaining work study allocation because these funds are paid when earned.

Title IV Funding is returned in the following order:

1. Unsubsidized Stafford Loans
2. Subsidized Stafford Loans
3. Federal Perkins Loans
4. Parent/Plus Loans
5. Pell Grant
6. SEOG(supplemental educational opportunity grant)
7. Other Title IV funds

## Return of Institutional Aid

When a student withdraws or takes a leave of absence from the College, financial aid given by the College is also returned to its original source. Institutional aid consists of restricted and unrestricted scholarships, Whittier Grants, endowments and also Whittier Loans. The refund or cancellation of institutional financial aid shall follow the pro-rata policy of the "Cancellation of Institutional Charges." The date of withdrawal or leave of absence Whittier College uses for the return of institutional aid shall be the date the student submits a completed and signed Withdraw or Leave of Absence Form to the Dean of Students office.

## Notification to Students

Students will be notified of all changes to their account via student billing statements.

Please note that withdrawing from Whittier College, regardless of circumstance, does not release students from financial obligations.

## College Policy

The College reserves the right to credit wages earned by students employed by the College or refundable deposits against unpaid accounts. Student grades or transcripts will not be issued, nor degrees conferred until after all financial obligations to the College have been satisfied.

Alex, Bernard
Director, Campus Safety
B.A., University of Southern California

Bridges, Vernon
Director, Student Financing
B.S., Ohio State University

Caldera, Vivian
Director of Human Resources
A.A., East Los Angeles College
B.S., University of Phoenix

Carter, Darren
Interim Director of Athletics
B.A., M.A., Whittier College

Cardenas, Sally
Director, Internships and Community Based Learning
B.A., M.S., California Statue University, Long Beach

Cheatham, Richard
Director, Media Center
B.A., Whittier College
M.Rel., Claremont School of Theology
M.S., Ph.D., University of Southern

California
Cube, Joan Iva
Interim Director, Center for Academic
Success
B.A., University of San Diego
M.A., New York University

Doody, Kevin J.
Director of Development
Ehlers, James
Director of Planned Giving
B.A., Whittier College

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

Gartrell, William
Registrar
B.A., Biola University

Gotsch, Susan
Vice President for Academic Affairs and
Dean of Faculty
B.A., Valparaiso University
M.A., Ph.D., Bryn Mawr College

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
Herzberger, Sharon D.
President
B.A., Pennsylvania State University
M.A., Ph.D. University of Illinois

Hudson, Delaphine
Assistant Dean of Students and Director of Housing
A.S., Wayne County Community College
B.A., Saginaw Valley State College
M.A., Central Michigan University

Kaufman, Joyce
Associate Academic Dean and Director of the Whittier Scholars Program
B.A., M.A., New York University

Ph.D., University of Maryland
Komai, Ralph
Assistant to the Vice President of Academic
Affairs
A.B., Whittier College
M.S., California Institute of Technology

Ph.D., University of California, Riverside
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
Leidy, Colleen
Director of Student Health Services
A.A., Rio Hondo College
R.N., Rio Hondo College

McIntosh, Bedford
Vice President for Advancement
B.A., University of California, Los Angeles

McKernan, George
Director of Conferences
B. S., East Stroudsburg University
M.S., Shippensburg University

Meyer, Lisa D.
Vice President of Enrollment
B.A., Willamette University
M.A., Boston College

Miller, Kieron
Associate Director of Admission
B.A., Loyola Marymount University

O'Brien, Philip
College Librarian
B.A., Whittier College
M.S.L.S., Ph.D., University of Southern

California
O'Foghludha, Ria
Associate Director of Whittier Scholars
Program
A.B., M.A., Duke University
M.Phil., Ph.D., Columbia University

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
Peake, Barnaby
Director of Student Activities
B.A., Linfield College
M.Ed., Azusa Pacific University

Rakoczy, Dana
Director of Public Relations
B.A., Scripps College

Rivas, Theresa
Interim Director of Alumni Relations
B.A., Whittier College

Ross, Linda
Director, Career Services
B.A., Santa Clara University

Santiago, Cecelia
Associate Director of the Cultural Center B.A., Whittier College

Sarabia, David
Title V Coordinator
B.A., University of California, Santa Cruz
M.A., University of California, Los

Angeles
Smith, Joan
Director of Disability Services
B.A., California State University Fullerton
M.A., California State University

Fullerton
Smith, R. Fritz
Associate Dean of Faculty
B.A., Pomona College
M.S., California State University, Los

Angeles
Ph.D., University of California, Irvine
Tambascia, Tracy Poon
Dean of Students
B.A., Occidental College
M.A., California State University, Los

Angeles
Wagner, Judith
Director of Broadoaks Children's School
B.S., Longwood College
M.Ed., University of Toledo

Ph.D., University of Pittsburgh

Wiberg, Kristin
Executive Assistant to the President
B.A., Scripps College

Ed.M., Harvard University

## OFFICERS OF THE BOARD

Richard I. Gilchrist '68
Chairman
Willard V. Harris, Jr. '55, L.H.D. '02
Vice Chairman
Donald E. Wood, L.H.D. '98
Treasurer
Ernie Z. Park
Secretary

## TRUSTEES EMERITI

C. Milo Connick, Ph.D.
R. Chandler Myers, LL.D. '88

Hubert C. Perry '35
Carl L. Randolph '43, LL.D. '82
Homer G. Rosenberger '34
Elden L. Smith '62
Benjamin B. Tregoe '51, LL.D. '90

## PRESIDENT OF THE COLLEGE

Sharon D. Herzberger, Ph.D., Ex Officio

## PRESIDENT EMERITUS

Eugene S. Mills, Ph.D., LL.D.

## PRESIDENTS OF WHITTIER COLLEGE

Charles E. Tebbetts, A.B.; Ph.B.; A.M.; D.D. (1901-1907)

Thomas E. Newlin, B.S.; A.M.; Ph.M.; LL.D.; D.D. (1907-1915)

Absolom Rosenberger, A.B.; LL.B.; LL.D.; D.D. (1915-1918)

Harry N. Wright, Ph.D.
(1918-1923)
Walter F. Dexter, A.B.; M.A.; Ed.D.; LL.D. (1923-1934)

Herbert E. Harris, Ph.D.; Litt.D.
(acting President 1933-1934)
William O. Mendenhall, Ph.D.; D.D. (1934-1943)

William C. Jones, A.B.; M.B.A.; Ph.D.; LL.D.; L.H.D.
(1943-1951)
Paul S. Smith, A.B.; M.A.; Ph.D.; L.H.D.; LL.D. (1951-1969)

Frederick M. Binder, B.A.; M.A.; Ph.D.; LL.D.; Litt.D.; L.H.D.; Ped.H.
(1970-1975)
W. Roy Newson, B.A.; M.A.; Ph.D.; L.H.D. (1975-1979)

Eugene S. Mills, A.B.; M.A.; Ph.D.; LL.D.; L.H.D.; LL.D.
(1979-1989)
James L. Ash, Jr., B.A.; M.A.; M.Th.; Ph.D. (1989-1999)

Katherine Haley Will, B.A.; A.M.; Ph.D. (1999-2004)

Janice A. Legoza, B.A.; M.P.A
(Interim President 2004-2005)
Sharon D. Herzberger, B.A.; M.A.; Ph.D. (2005-)

## TRUSTEES (YEAR FIRST ELECTED)

Steven C. Ai ' 76
President/CEO
City Mill Home Improvement Center Honolulu, HI (2002)

Dolores L. Ball '33, L.H.D. '96
Retired Businesswoman
Whittier, CA (1962)

Richard A. Bayer
Executive Vice President
The Macrich Company
Newbury, CA (2002)
Roy J. Clason '84
Marketing Executive
Zephyr Cove, NV (2002)
Christopher T. Cross '62
Chairman
Cross \& Joftus, LLC
Danville, CA (2000)
John H. Crow '64, Ph.D.
President
C\&H Environmental, Inc.
Hackettstown, NJ (2003)
Vincent J. Daigneault '85
Vice President, Investments
Smith Barney
Glendora, CA (2004)
Kristine E. Dillon '73
President
Consortium on Financing Higher
Education
Brighton, MA (1997)
Richard I. Gilchrist '68
President and Co-CEO
Maguire Properties, Inc.
Los Angeles, CA (1999)
Alfred J. Gobar '53, M.A. '55, L.H.D. '05
President, Retired
Alfred Gobar Associates, Inc.
Fullerton, CA (1992)
Charlotte D. Graham, L.H.D. '99
Community Leader
Dana Point, CA (1976)
Kenneth S. Greenbaum '53
President
Greenbaum Homefurnishings
Medina, WA (2000)
Barbara Ondrasik Groce '57
Educator
La Jolla, CA (1992)
Willard V. Harris, Jr. '55, L.H.D. '02
President
Harris Taylor Management
Newport Beach, CA (1979)

Wayne S. Harvey '60
Managing Partner, Retired
Harvey \& Parmelee, LLP
Rancho Mirage, CA (2000)
Charles E. Hawley, Jr. '51
Businessman, Retired
Whittier, CA (2000)
Donald J. Herrema '74
President and CEO
Loring Ward International Ltd.
Rumson, NJ (1995)
Caroline P. Ireland '43
Community Leader
Birmingham, AL (1986)
David C. Lizarraga
Chairman of the Board \& Chief Executive
Officer
TELACU
Glendora, CA (1991)
Alice D. Lowe '37
Community Leader
Baltimore, MD (2000)
Alan H. Lund '71
Executive Vice President
Vice Chairman-Finance and CFO
International Lease Finance Company
Los Angeles, CA (2000)
David D. Mandarich
President and Chief Executive Officer
Richmond Homes
Englewood, CO (1996)
Sharon W. McLaughlin
Community Leader
Newport Beach, CA (1983-90, 1992)
James E. Mitchell '62
Attorney-at-Law
Mitchell Partners, L.P.
Pebble Beach, CA $(1983-2000,2004)$
Linda K. Mitrovich
Partner
Pacific Atlantic Group
Brentwood, CA (2002)
Ernie Z. Park
Attorney-at-Law
Bewley, Lassleben \& Miller
Huntington Beach, CA (1992)

Amy L.S. Pulver
Community Organizer
Centers for Disease Control and
Prevention
Atlanta, GA (2003)
Ruth B. Shannon, L.H.D. '92
Community Leader
Whittier, CA (1979)
Geoffrey C. Shepard '66
President
Karr Barth Associates
Media, PA (2002)
Willard W. Shepherd, Sr.
General Partner
Shepherd Management Services Group
Santa Ynez, CA (1992)
Judith A. Swayne '63
Community Leader
Laguna Beach, CA (2000)
Tomio Taki
Chairman
Takihyo, Inc.
New York, NY (1989)
Maxine M. Trotter '47
Assistant and Treasurer
Murdy Foundation
Santa Ana, CA (1991)
Roberta G. Veloz '57
CEO and Chairman
Aquafine Coporation
Valencia, CA (1992)

Alfred R. Villalobos '65
President
ARVCO Capital Research, Inc.
Zephyr, NV (2004)
Steven Weston '83
Senior Principal
Convergys Corp.
Jacksonville, FL (1997)
Joan M. Woehrmann '52
Community Leader
American Medical Enterprises
Rancho Mirage, CA (2000)
Donald E. Wood, L.H.D. '98
President, Community Honda
Whittier, CA (1975)

## ALUMNI TRUSTEE

Shayne Cox Gad '71
Principal
Gad Consulting Services
Cary, NC (2004)

## PRESIDENT OF THE ALUMNI ASSOCIATION

Jeanette Wong '81
Director of Academic Advising
Azusa Pacific University
Chino Hills, CA (2004)

Adams, Charles S.
Professor of English Language and Literature, 1984
A.B., University of California, Davis
M.A., Ph.D., University of Washington

Barnstone, Tony D.
Associate Professor English Language and Literature, 1995
B.A., University of California, Santa Cruz
M.A., Ph.D., University of California, Berkeley

Bell, Priscilla B.
Associate Professor of Chemistry, 1982
B.S., Mt. Union College
M.S., Ph.D., Ohio State University

Bergerson, Frederic A.
Professor of Political Science, 1971
B.A., Johns Hopkins University

Ph.D., Vanderbilt University
Bobich, Edward
Visiting Assistant Professor of Biology, 2004
B.A., University of Colorado

Ph.D., University of California, Los
Angeles
Bourgaize, David B.
The Fletcher Jones Professor of Molecular Genetics, 1996
B.S., B.A., Ohio Northern University

Ph.D., University of Massachusetts
Bremme, Donald W.
Associate Professor of Education and Child
Development, 1991
A.B., A.M., Stanford University
M.A., University of California, Berkeley

Ed.D., Stanford University
Calvert, Sherry L.
Associate Professor of Kinesiology and Leisure Science, 1984
B.A., M.A., University of Southern California

Camparo, Lorinda B.
Associate Professor of Psychology, 1996
B.A., Barnard College of Columbia

University
B.A., California State University,

Dominguez Hills
M.A., Ph.D., University of California, Los Angeles

Campbell, David
Visiting Assistant Professor of Economics, 2004
B.A., University of California, Los Angeles

Ph.D., University of Maryland
Chabrán, H. Rafael
Professor of Modern Languages and
Literatures, 1985
B.A., University of California, Berkeley
M.A., San Jose State University

Ph.D., University of California, San Diego
Chirol, Marie-Magdeleine
Associate Professor of Modern Languages and Literatures, 1996
M.A., Ph.D., University of Maryland,

College Park
Cook, Stephen
Assistant Professor of Music, 2002
M.M., B.A., University of South Carolina
D.M.A., University of Southern California

Crain, David
Visiting Assistant Professor of Business
Administration, 2004
B.S., M.S., Ph.D., University of Southern

California
Decker, Jeffrey N.
Associate Professor of Business
Administration, 1992
B.B.A., M.B.A., Kent State University

Ph.D., Claremont Graduate University
Dmohowski, Joseph F.
Science Librarian and Associate Professor, 1985
B.A., M.A., California State University, Los Angeles
M.S.L.S., University of Southern

California
Dorrington, Claudia
Associate Professor of Social Work, 1999
BSc., South Bank University, England M.S.W., Ph.D., University of California, Los Angeles

Duran, Daniel
Assistant Professor of Business
Administration, 2002
M.L.S., B.A., University of California, Berkeley
Ph.D., University of Wisconsin, Madison

Fattahi, Abi
Professor of Mathematics, 1981
B.S., University of Tehran
M.S., Ph.D., University of Chicago

Furman-Adams, Wendy
Professor of English Language and Literature, 1981
B.A., California State University,

Los Angeles
M.A., California State University,

Long Beach
Ph.D., University of Southern California
Garcia-Quijano, Carlos G.
Visiting (Irvine) Assistant Professor of
Environmental Science, 2005
B.S., M.S., University of Puerto Rico

Ph.D. Candidate, University of Georgia
Geiger, William A.
The Albert Upton Professor of English
Language and Literature, 1965
B.A., Whittier College
M.A., Ph.D., University of Southern

California
Geirola, Gustavo
Associate Professor of Modern Languages and Literatures, 1995
Prof. of Letters, University de Buenos Aires
Ph.D., University of Arizona
Goldberg, Stephen R.
The Roy E. and Marie G. Campbell Professor
of Biology, 1970
B.A., Boston University
M.S., Ph.D., University of Arizona

Gotsch, Susan D.
Vice President for Academic Affairs and
Dean of Faculty, 2003
Professor of Sociology, 2003
B.A., Valparaiso University
M.A., Ph.D., Bryn Mawr College

Gottschall, Marilyn
Associate Professor of Religious Studies, 1998
B.A., Lock Haven University
M.S.W., Carleton University, Canada

Ph.D, University of Southern California
Gupta, Surupa
Irvine Fellow in Political Science, 2004
B.A., M.A., Jadavpur University, Calcutta,

India
Ph.D., University of Southern California

Heldman, Caroline
Assistant Professor of Political Science, 2002
B.A., Washington State University
M.A., Ph.D., Rutgers University

Herzberger, Sharon D.
President of the College, 2005
Professor of Psychology, 2005
B.A., Pennsylvania State University
M.A., Ph.D., University of Illinois

Hill, Charles T.
Professor of Psychology, 1982
B.A., University of Oregon
M.S., M.A., University of Washington

Ph.D., Harvard University
Holmes, Jennifer
Assistant Professor of Theatre and
Communication Arts, 2002
B.A., State University of New York, Purchase
M.A., Ph.D., Northwestern University

Howard, Leslie L.
Professor of Sociology, 1981
B.A., Whittier College
M.A., Ph.D., Harvard University

Hunt, David P.
Professor of Philosophy, 1981
B.A., Pomona College
M.A., Ph.D., Vanderbilt University

Ibrahim, Hilmi
Professor of Kinesiology and Leisure Science, 1964
B.P.E., Cairo Institute of Physical

Education
B.A., American University, Cairo
M.A., California State University,

Fullerton
M.S., M.A., Re.D., Indiana University

Iimoto, Devin S.
Professor of Chemistry, 1990
B.A., Carlton College
M.S., Ph.D., University of California, San Diego

Iyam, David
Associate Professor of Anthropology, 1999
B.A., University of Calabar, Nigeria
M.A., M.F.A., Ph.D., University of California, Los Angeles
johnston, sal a.
Associate Professor of Sociology, 1996
B.S., M.S., Grand Valley State University, Michigan
Ph.D., University of Oregon
Kaufman, Joyce P.
Director of the Whittier Scholars Program, 1997
Professor of Political Science, 1985
B.A., M.A., New York University

Ph.D., University of Maryland
Keny, Sharad
Professor of Mathematics, 1986
M.S., University of Bombay, India
M.A., Ph.D., University of California, Los

Angeles
Kjellberg, Paul
Associate Professor of Philosophy, 1993
B.A., Yale University

Ph.D., Stanford University
Komai, Ralph
Assistant to the Vice President of Academic
Affairs
Visiting Assistant Professor of Environmental
Science, 2004
A.B., Whittier College
M.S., California Institute of Technology

Ph.D., University of California, Riverside
Lagan, Seamus
Associate Professor of Physics and Astronomy, 1988
B.A., Dublin University, Ireland
M.S., Ph.D., Lehigh University

Laine, Charles R.
Professor of Business Administration, 1976
B.A., California State University,

Stanislaus
M.A., Ph.D., University of California,

Davis
Lamar, Simon
Assistant Professor of Economics, 2004
B.A., Universidad Central de Venezuela, Caracas
M.A., Temple University
M.A., Ph.D., Claremont Graduate

University

LeVelle, Teresa
Assistant Professor of Music, 2000
B.M. - Southwestern College, Kansas,

Aspen School of Music
M.M. - Bowling Green State University
D.M. - Indiana University

Lozano, Danilo
Associate Professor of Music, 1993
B.M., University of Southern California
M.A., University of California, Los

Angeles
Lutgen, Jeffrey
Associate Professor of Mathematics, 1994
B.A., California State University,

Sacramento
M.S., Ph.D., University of Oregon

Marks, Robert B.
The Richard and Billie Deihl Distinguished
Professor of History, 1978
B.A., M.A., Ph.D., University of Wisconsin, Madison

Martinez, Desireé René Martinez
Irvine Fellow in Anthropology, 2004
B.A., University of Pennsylvania
M.A., Ph.D. Candidate, Harvard

University
McBride, Michael J.
Professor of Political Science, 1969
B.A., M.A., Ph.D., Purdue University

McEnaney, Laura
The Nadine Austin Wood Associate Professor of History, 1996
B.A., M.A., Ph.D., University of

Wisconsin, Madison
Miller, Jeffrey
Visiting Assistant Professor of Mathematics, 2004
B.S., University of California, Davis
M.A., Ph.D., University of California,

Santa Barbara
Morris, Clifton I.
The James Irvine Foundation Professor of Biology, 1972
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
A.B., Vassar College
M.A., University of Michigan

Ph.D., State University of New York,
Stony Brook
Muller, David J.
Professor of Music, 1983
B.M.E., Temple University
M.M., Cleveland Institute of Music

Neu, John H.
Professor of Political Science, 1971
A.B., J.D., Creighton University
M.A., Harvard University

Ph.D., University of Nebraska
Nino, Lana
Assistant Professor of Business
Administration, 2002
B.S., California State University, Long

Beach
M.S., B.A., California State University, Pomona

Norden, Deborah
Associate Professor of Political Science, 2000
B.A., University of Michigan, Ann Arbor
M.A., Ph.D., University of California,

Berkeley
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
O'Connor-Gomez, Doreen M.
Associate Professor of Modern Languages and Literatures, 1991
B.A., M.A., Ph.D., Catholic University

O'Connor, Lucy A.
Professor of Psychology, 1970
B.A., M.A., Oberlin College

Ph.D., McGill University
O'Foghludha, Ria M.
Associate Professor of Art and Art History, 1993
A.B., M.A., Duke University
M.Phil., Ph.D., Columbia University

Orozco, Jose
Associate Professor of History, 1996
B.A., University of California, Santa Cruz
M.A., Ph.D., Harvard University

Overmyer-Velázquez, Rebecca
Assistant Professor of Sociology, 2003
B.A., San Francisco State University
M.A., Ph.D., Miami University
pAddy, dAvid iAn
Associate Professor of English Language and
Literature, 1996
B.Ph., Miami University
M.A., American University

Ph.D., University of Maryland, College Park

Piner, Glenn
Associate Professor of Physics and Astronomy, 2000
B.S., M.S., Ph.D., University of Maryland

Poskovic, Endi
Associate Professor of Art and Art History, 1996
B.F.A., University of Sarajevo
M.F.A., State University of New York

Price, Joseph L.
The C. Milo Connick Professor of Religious
Studies, 1982
B.A., Georgetown College
M.Div., Southern Baptist Theological Seminary
M.A., Ph.D., University of Chicago

Radisich, Paula R.
Professor of Art and Art History, 1983
B.A., M.A., Ph.D., University of California, Los Angeles

Ralph, Kathleen
Associate Professor of Education and Child
Development, 1995
B.S., Washington State University
M.A., Ph.D., Arizona State University

Reed, Brian A.
Associate Professor of Theatre and
Communication Arts, 1988-89, 1990
B.A., University of California, Riverside M.F.A., Humboldt State University

Reeg, Charles F.
Professor of Chemistry, 1971
B.A., Dana College

Ph.D., University of Colorado
Russo, Kim
Associate Professor of Art and Art History, 1993
B.F.A., Tyler School of Art
M.F.A., Indiana University

Sage, Elizabeth
Assistant Professor of History, 2000
B.A., University of California, Los Angeles
M.A., Ph.D., University of Chicago

Sanders, Kay
Visiting Assistant Professor of Child
Development, 2004
B.A., University of Michigan
M.S., California State University, Los

Angeles
Ph.D. Candidate, University of California, Los Angeles

Sartorius, David
Assistant Professor of History, 2003
B.A., Trinity University
M.A., Ph.D., University of North Carolina, Chapel Hill

Sebanc, Anne
Associate Professor of Education and Child
Development, 1999
B.S., University of California, Davis

Ph.D., University of Minnesota
Serna, Irene
Visiting Assistant Professor of Education and Child Development, 2003
B.A., Ph.D., University of California,

Los Angeles
Shaikh, Ayesha
Assistant Professor of Psychology, 2003
B.A., University of California, Los Angeles
M.A., Ph.D., Miami University

Shaw, Susanah
Assistant Professor of History, 2005
B.A., University of California, Santa Cruz
M.A., Ph.D., Cornell University

Sheridan, Paula
Associate Professor in Social Work, 1997
Director of Social Work Program, 1997
B.A., Louisiana Tech University
M.S.W., Louisiana State University
M.A., Southwestern Baptist Theological

Seminary, Texas
Ph.D., University of Southern California
Sloan, David
Associate Professor of Art and Art History, 1988
B.A., University of Maryland
M.F.A., Washington University, St. Louis

Smith, R. Fritz
Associate Dean of Faculty, 2002
Professor of Mathematics, 1976
B.A., Pomona College
M.S., California State University,

Los Angeles
Ph.D., University of California, Irvine
Sundberg, Eric
Assistant Professor of Mathematics, 2004
B.A., Occidental College

Ph.D., Rutgers University
Swift, Cheryl C.
Associate Professor of Biology, 1991
A.B., Occidental College

Ph.D., University of California,
Los Angeles
Switzer, Michelle K.V.
Associate Professor of Philosophy, 1998
B.A., Oberlin College
M.A., Ph.D., University of Toronto

Topjon, Ann J.
Public Services Librarian and Associate
Professor, 1981
B.A., Occidental College
M.S.L.S., University of Southern California

Urbizagastegui, Shelley
Government Documents Librarian and
Assistant Professor, 1993
B.A., Arkansas Technical University
M.L.S., University of Pittsburgh

Van Oosbree, Patricia A.
Assistant Professor of Kinesiology and Leisure Science, 1993
B.A., M.S., Northwestern Missouri State University
M.S., University of Wisconsin, La Crosse

Ph.D., Texas Woman's University
Vermilye, Jan
Assistant Professor of Environmental Science, 1999
B.A., State University College of New York M.S., Ph.D., Columbia University

Vick, Mary Ellen
Assistant Librarian and Associate Professor, 1970
B.A., California State University, Long Beach
M.S.L.S., University of Southern

California
Volckmann, David B.
Professor of Psychology, 1970
B.A., Hamilton College

Ph.D., Indiana University
Wagner, Judith T.
Professor of Education and Child
Development, 1984
Director of Broadoaks, 1984
B. S., Longwood College
M.Ed., University of Toledo

Ph.D., University of Pittsburgh
Wallis, Andrew
Associate Professor of Modern Languages and Literatures, 1999
M.A., Middlebury College
B.A., Ph.D., University of Georgia, Athens

Wiedeman, Claudia Ramirez
Associate Professor of Education and Child
Development, 1998
B.A., Ph.D., University of California, Los Angeles

Woirol, Gregory R.
The Douglas W. Ferguson Professor of Economics, 1976
B.A., University of Washington Ph.D., University of California, Berkeley

Zorba, Serkan
Assistant Professor of Physics and
Astronomy, 2004
B.S., Hacettepe University, Ankara, Turkey
M.A., Ph.D., University of Rochester

## FACULTY EXECUTIVE COUNCIL, 2005-2006

Trish Van Oosbree, Chair
David Iyam, Vice Chair
Cheryl Swift, Secretary and Treasurer
Danny Lozano, At Large Representative
Brian Reed, Humanities Representative
Deborah Norden, Social Science Representative
Chuck Reeg, Natural Science Representative

## SPECIAL SENIOR STATUS

Kiley, Anne
Professor, English Language and Literature (1972-2005)

Yocum, Glenn E.
The C. Milo Connick Professor of Religious Studies (1973-77; 1978-2005)

## EMERITUS FACULTY

Archer, Richard L., B.A., M.A., Ph.D., Professor, History (1975-2004)

Breese, Donald H., B.A, Ph.D.
Professor, History (1961-1997)
Carlyle, Irene V., B.A., M.A.
Associate Professor, Speech Pathology and Audiology (1978-2001)

Connick, C. Milo, B.A., S.T.B., Ph.D., D.D. Professor, Religion (1946-1982)
deVries, Jack H.
Associate Professor, Theatre and
Communication Arts (1970-2005)

Dean, John F., B.S., M.A., Ed.D.
Professor, Education (1970-1992)
Eaton, Thelma L., B.A., M.S.W., D.S.W.
Professor, Social Work (1970-1994)
Fairbanks, Joseph, B.A., M.A., Ph.D.
Professor, History (1970-1997)
Farmer, Ann D., B.A., M.A., Ph.D.
Associate Professor, English (1972-1999)
Finan, Mary Casey, B.A., M.A., Ph.D.
Associate Professor, Business Administration (1987-2002)

Godfrey, John H., B.A., B.Ed., M.A. Associate Professor, Physical Education (1957-1984)

Gothold, Stephen A., B.A., M.A., D.M.A.
Professor, Music (1977-2003)
Grasty, George M., B.A., M.A.
Assistant Professor, German (1957-1980)
Hanson, A. Warren, B.S., M.S., Ph.D. Professor, Biology (1970-2004)

Harvey, Richard B., B.A, M.A., Ph.D.
Professor, Political Science (1960-2000)
Kim, Ha Tai, B.A., B.D., M.A., Ph.D.
Professor, Philosophy (1964-1981)
Leighton, Beach, B.S., M.S., Ph.D.
Professor, Geology (1951-1974)
Mass, Amy L., B.A., M.S.W., D.S.W, Professor, Social Work (1983-1998)

McEwen, Gilbert D., B.A., M.A., Ph.D.
Professor, English (1955-1985)
Mills, Eugene S., B.A., M.A., Ph.D., LL.D., L.H.D.

Professor, Psychology (1952-1962)
President (1979-1989)
Nobert, Frances, B.M., M.M., D.M.A.
Professor, Music (1982-1999)
Nuttall, Donald A., B.A., M.A., Ph.D.
Professor, History (1961-2002)
Ochse, Orpha, B.A., M.M., Ph.D.
Professor, Music (1969-1987)

Olson, Emelie A., B.A., M.A., Ph.D.
Professor, Anthropology (1973-2002)
Overturf, Stephen F.B.A, M.A., Ph.D. Professor, Economics (1971-2002)

Schambach, Robert, B.S., Ph.D.
Professor, Chemistry (1969-2000)
Speier, Robert, B.F.A., M.F.A.
Associate Professor, Art (1970-1989)
Treser, Robert ,M., B.S., M.F.A., Ph.D.
Professor, Theatre Arts (1965-1993)
Tunison, Elizabeth, B.A., M.Ed.
Associate Professor, Education (1979-1988)
Wadsworth, William B., B.A., M.S., Ph.D.
Professor, Geology (1972-1997)

## DEPARTMENT CHAIRS 2005-2006

Art and Art History, David Sloan
Biology, David R. Bourgaize
Business Administration, Charles R. Laine
Chemistry, Devin S. Iimoto
Economics, Greg R. Woirol
Education and Child Development, Kathleen Ralph
English Language \& Literature, dAvid iAn pAddy
History, Laura McEnaney
Kinesiology and Leisure Science, Hilmi Ibrahim
Mathematics, Abi Fattahi
Modern Languages \& Literatures, Andrew Wallis
Music, Danilo Lozano
Philosophy, David P. Hunt
Physics and Astronomy, Seamus Lagan
Political Science, Fredric A. Bergerson
Psychology, Charles T. Hill
Religious Studies, Joseph L. Price
Sociology, Anthropology E Social Work, Paula Sheridan
Theatre \& Communication Arts, Brian A. Reed
ACADEMIC
Auditing ..... 36
Education Rights and Privacy Act ..... 38
Grade Appeal Policy and Process ..... 39
Grading ..... 40-41
Honesty ..... 29
Plagiarism ..... 29-32
Petitions, Policies \& Procedures ..... 33-34
Registration ..... 43-44
Review ..... 34-35
Withdrawl ..... 45-46
ACCREDITATION .....  2
ACTIVITIES, STUDENT ..... 28
ADMINISTRATION ..... 227-228
ADMISSION ..... 10-12
Application Procedure ..... 14-15
Credential Program ..... 214
Early-Decision Plans ..... 10
Freshman Admission ..... 10
Graduate Program ..... 214
International ..... 11-12
Non-Degree ..... 12
Readmission ..... 43
Transfer Admission ..... 11
ADVANCED PLACEMENT ..... 37, 134
ANTHROPOLOGY ..... 191-194
APPLIED PHILOSOPHY ..... 161
APPEALS ..... 33, 39
ART \& ART HISTORY ..... 57-62
ASTRONOMY ..... 164-169
ATTENDANCE POLICIES ..... 35
AUDITING ..... 36
BIOLOGY ..... 63-66
BROADOAKS SCHOOL ..... 54-55
BUILDINGS AND FACILITIES ..... 242
BUSINESS ADMINISTRATION. ..... 67-71
CALENDAR, ACADEMIC ..... 5-6
CAMPUS FACILITIES ..... 242
CAMPUS INN ..... 28, 242
CAMPUS, MAP OF ..... 242
CAREER SERVICES ..... 25
CENTER FOR ACADEMIC SUCCESS ..... 26, 53
CHEMISTRY ..... 72-75
CHILD DEVELOPMENT ..... 88-90
CHINESE ..... 143-146
CLASS STANDING ..... 36
COLLEGE LIFE ..... 22-28
COLLEGE WRITING PROGRAM ..... 76-79
COMMENCEMENT ..... 36
COMPUTER SCIENCE ..... 140
COMPUTING SERVICES
Clift Microcomputer Lab ..... 53
Computer Center ..... 53
Departmental ..... 54
GTE Language Resource Center ..... 55
W.M. Keck Lab ..... 53
Math Lab ..... 54
Writing Center (CAS) ..... 53
CONCURRENT ENROLLMENT ..... 36
CONVOCATION ..... 8, 25
COUNSELING SERVICES ..... 26
COURSE NUMBERING SYSTEM ..... 56
CREDIT BY EXAMINATION ..... 37
CREDIT/NO CREDIT GRADING POLICY. ..... 41
CULTURAL CENTER ..... 26
CURRICULUM ..... 47
DEAN'S LIST ..... 37
DEGREES ..... 47
DIRECTORY
Administrative ..... 227-228
Board of Trustees. ..... 229-231
Faculty. ..... 232-238
DISABILITY SERVICES ..... 27
DIVISIONS ..... 56
DROPPING COURSES ..... 44, 45
EARTH SCIENCE ..... 102-105
ECONOMICS ..... 80-82
EDUCATION ..... 83-88, 212-220
EMAIL ..... 37
ENDOWED COLLEGE SCHOLARSHIPS ..... 15-20
ENDOWED PROFESSORSHIPS ..... 23-24
ENGINEERING ..... 91-93
ENGLISH LANGUAGE \& LITERATURE.....94-101
ENVIRONMENTAL SCIENCE ..... 102-105
ENSEMBLES ..... 160
EXPENSES ..... 223-226
FACULTY MASTERS PROGRAM ..... 212
FACULTY, WHITTIER COLLEGE ..... 232-238
FAIRCHILD AERIAL PHOTOGRAPHY COLLECTION ..... 53
FEES AND EXPENSES ..... 223
FAMILY EDUCATIONAL RIGHTS AND PRIVACY
ACT (FERPA) ..... 38
FINAL EXAM POLICY ..... 38
FINANCIAL AID ..... 12-21
Financing Plans ..... 12-13
Need-Based Aid ..... 13
Scholarships ..... 12
FOREIGN STUDY PROGRAMS ..... 204-205
FRENCH 106, 143, 146-149

FRESHMAN WRITING PROGRAM............50, 76 GENDER AND WOMEN'S STUDIES ....... 107-108 GLOBAL AND CULTURAL STUDIES...... 109-117 GRADES ..................................................... 39-44

Appeal Process .................................... 39-40
Incomplete................................................ 42
In Progress ................................................ 43
Policies and Procedures....................... 40-41
Reports ..................................................... 44
GRADUATE EDUCATION ........................212-220
GRADUATE STANDING .................................... 42
GRADUATION REQUIREMENTS
Undergraduate..................................50, 133
Graduate..........................................212-220
HEALTH SERVICES .......................................... 27
HISTORY ..................................................118-122
HONORS AT COMMENCEMENT .................... 42
HONORS LISTS........................................... 25, 42
HOUSING.......................................................... 27
HUMANITIES .................................................... 56
IN PROGRESS GRADES.................................................... 43
INCOMPLETE GRADES..................................... 42
INDEPENDENT STUDY...............................42, 43
INFORMATION TECHNOLOGY SERVICES.... 53
INSTRUCTOR DROP......................................... 45
INTERCOLLEGIATE ATHLETICS ................... 131
INTERDISCIPLINARY COURSES ........... 123-126
INTERNATIONAL BACCALAUREATE .......... 134
INTERNATIONAL PROGRAMS.............. 204-205
INTERNATIONAL STUDENTS .................... 11-12
JANUARY INTERIM ....................................... 5-6
JAPANESE........................................144, 149-150
KECK FOUNDATION LABORATORY .............. 53
KINESIOLOGY AND LEISURE SCIENCE.. 127-131
KINESTHETIC PERFORMANCE.................... 131
LABORATORY FEES .......................................... 44
LAUTRUP-BALL CINEMA ................................ 55
LAW SCHOOL..........................................221-222
LIBERAL EDUCATION
Program..................................................47-48
Requirements .................................... 132-135
LIBRARY ........................................................... 52
MAJOR REQUIREMENTS ................................. 51
MAP OF CAMPUS ............................................ 242
MASTER'S DEGREES ...................................... 212
MATH LAB ....................................................... 54
MATHEMATICS .......................................136-140
MATHEMATICS-BUSINESS .......................... 141
MEDIA CENTER ................................................. 54
MINOR REQUIREMENTS................................... 51
MISSION STATEMENT ...................................... 9
MODERN LANGUAGES \& LITERATURES142-153
MUSIC ......................................................154-160
NATIONAL HONOR SOCIETIES ..................... 25
NATURAL SCIENCES....................................... 56

NON-DEGREE STANDING............................... 12
NONDISCRIMINATION ...................................... 2
NUMBERING SYSTEM FOR COURSES............. 56
ORIENTATION ................................................5, 6
OVERSEAS STUDY .................................. 204-205
PERFORMING ARTS CENTER .......................... 52
PETITION POLICY AND PROCEDURE ......33-34
PHILOSOPHY........................................... 161-163
PHYSICAL EDUCATION AND RECREATION
(see Kinesiology)....................................... 127-131
PHYSICS ..................................................164-168
PLAGAIRISM................................................29-33
POLITICAL SCIENCE .............................. 170-175
PREPROFESSIONAL PROGRAMS .......... 206-208
Baccalaureate/Jurist Doctorate 3/3.......... 209
Continuing Education............................. 209
Pre-Engineering (3-2).............................. 206
Pre-Legal ................................................. 207
Pre-Therapy .................................... 206-207
Social Work ......................................207-208
Teacher Education................................... 208
Urban Studies.......................................... 208
PRESIDENT'S MESSAGE .................................... 7
PRIVATE INSTRUCTION..........................44, 159
PROBATION .................................................33-34
PSYCHOLOGY.......................................... 176-180
READMISSION................................................. 43
REFUND POLICY............................................. 223
REGISTRATION \& CLASS SCHEDULING ...... 43
REGISTRATION CHANGES .............................. 44
RELIGIOUS STUDIES .............................. 181-184
REPEATING COURSEWORK ............................ 44
RESIDENTIAL LIVING ..................................... 27
ROTC ................................................................. 44
SCHOLARSHIPS ..........................................12-13
SCIENTIFIC COMPUTING.......................185-186
SHANNON CENTER FOR THE PERFORMING
ARTS ................................................................. 52
SOCIAL SCIENCES........................................... 56
SOCIAL WORK ........................................194-197
SOCIOLOGY ............................................ 187-191
SPANISH..........................................143, 150-153
STUDENT
Academic Achievement ............................. 25
Activities ................................................... 28
Grade Report ............................................. 44
Living ....................................................... 27
Non-Degree ............................................... 43
Records..................................................... 45
Rights and Responsibilities ............20-21, 28
STANDING
Academic.............................................34-35
Class ......................................................... 36
Graduate................................................... 42
Non-Degree .............................................. 43
STUDIO ART ..... 60-62
STUDY AWAY FROMWHITTIER36, 50-51, 204-205
STUDY LOAD ..... 45
SUMMER PROGRAM ..... 210
SUPPORT PROGRAMS \& SERVICES ..... 52-55
SUSPENSION ..... 35
THEATRE ..... 52
THEATRE \& COMMUNICATION ARTS.... 198-202TRADITIONS8
TRANSCRIPT ..... 45
TRANSFER STUDENTS
Admission ..... 11
Credits ..... 45
Graduation Requirements ..... 51-52
TRUSTEES ..... 229-231
UNAUTHORIEZED WITHDRAWAL ..... 46
URBAN STUDIES ..... 211
VALUES ..... 8
VISION ..... 8
WESTERN ASSOCIATION OF SCHOOLS ANDCOLLEGES2
WHITTIER COLLEGE LAW SCHOOL ..... 221-222
WHITTIER SCHOLARS PROGRAM
Courses ..... 203
Requirements ..... 52
Transfer from WSP to Lib Ed Program. ..... 52
WITHDRAWAL POLICIES 45-46, 223
WOMEN'S STUDIES ..... 107-108
WRITING CENTER (CAS) ..... 53
WRITING PROGRAM ..... 50



[^0]:    *Not offered every year.

[^1]:    *Not offered every year.

[^2]:    *Not offered every year.

[^3]:    295, 395, 495 Independent Studies
    Credit and time arranged. Permission. May be repeated for credit.
    *Not offered every year.

[^4]:    *Not offered every year.

[^5]:    *Not offered every year.

[^6]:    *Not offered every year.

[^7]:    *Not offered every year.

