DEPARTMENT CHAIR

Robert C. Belloli

DEPARTMENT OFFICE

McCarthy Hall 580

PROGRAMS OFFERED

Bachelor of Science in Biochemistry

Bachelor of Science in Chemistry

Bachelor of Arts in Chemistry

Minor in Chemistry

Minor in Biotechnology

Emphasis in Biotechnology

Emphasis in Environmental Chemistry

Master of Science in Chemistry

Emphasis in Geochemistry

SUBJECT MATTER PREPARATION PROGRAM

Single Subject Teaching Credential in Science

DEPARTMENT WEBSITE

http://chemsrvr2.fullerton.edu/

FACULTY

Robert C. Belloli, Peter deLijser, Richard Deming, Barbara Gonzalez, Christina Goode, A. Scott Hewitt, Gene Hiegel, Katherine Kantardjieff, Maria Linder, Christopher Meyer, John Olmsted, Harold Rogers, Chandra Srinivasan, Fu-Ming Tao, Joseph Thomas, Bruce Weber, Patrick Wegner, W. Van Willis

ADVISERS

Undergraduate: Katherine Kantardjieff
Graduate: Fu-Ming Tao

INTRODUCTION

The Department of Chemistry and Biochemistry is on the approved list of the American Chemical Society. The curriculum is planned to provide thorough instruction in the basic principles and concepts of chemistry and biochemistry for students who will (1) advance to graduate work in chemistry or biochemistry; (2) teach in the science programs of secondary schools; (3) seek employment in industry or government; (4) advance to medical, dental, or pharmacy training or (5) pursue a degree or minor in support of a career in other areas such as physics, biology, geology, business or computer science.

The department offers three bachelor's degrees, the Bachelor of Science (B.S.) and the Bachelor of Arts (B.A.) in Chemistry and the Bachelor of Science (B.S.) in Biochemistry.

To qualify for any of these degrees, a student must earn C grades in all courses required for the major including prerequisites in related sciences or mathematics.

The Bachelor of Arts in Chemistry, the Bachelor of Science in Chemistry and the Bachelor of Science in Biochemistry require a minimum of 120 units. These total units include courses for the major, General Education, all University requirements, and free electives.

Internships

Internship in chemistry (Chemistry 490) provides practical work experience which integrates with the student's classroom studies.

Recommended Program in General Education

Because of high unit requirements for chemistry degree programs, a student majoring in chemistry is strongly urged to consult with a chemistry faculty adviser prior to designing his/her general education program. There is a six-unit exemption in general education for B.S. Chemistry degree majors for which the undergraduate Chemistry adviser must be consulted.

Upper-Division Baccalaureate Writing Requirement

Chemistry and biochemistry majors meet the coursework portion of the University's upper-division writing requirement by passing Chemistry 340.

TEACHING CREDENTIALS

The B.A. in Chemistry degree may be effectively combined with subject matter studies necessary for the single subject teaching credential in science. Undergraduates are encouraged to work with the department adviser and/or the Center for Careers in Teaching (714-278-7130) as early as possible in their academic careers to plan efficient course selections for general education, the major and electives. Postbaccalaureate students need to contact the Admission to Teacher Education office in the School of Education (714-278-3411) to obtain information on attending an overview presentation and orientation prior to meeting with the department adviser.

BACHELOR OF SCIENCE IN BIOCHEMISTRY

The B.S. degree in Biochemistry is recommended for students planning to go directly into professional biochemistry and for students planning to attend graduate school in biochemistry or molecular biology. It is also excellent preparation for medical, dental and pharmacy school. Students who complete this program and include Chemistry 325 and Chemistry 411 (3 units) qualify for certification by the American Chemical Society. The major in biochemistry requires the following course work:

Basic Requirements (46 units)

Courses Normally Taken During the First Two Years (Courses are prerequisite to additional required courses.):

General Chemistry (Chemistry 120A,B) (10)

Organic Chemistry (Chemistry 301A,B) (6)

Organic Chemistry Laboratory (Chemistry 302) (2)

Elementary Physics (Physics 211, 212) (6)

Elementary Physics Lab (Physics 211L, 212L) (2)

Analytic Geometry and Calculus (Math 150A,B) (8)

Biology 172, 273 (10) or appropriate transfer classes.

Note: Chemistry 305, 306A and B may be substituted for 301B and 302.

Additional Required Courses (30 or 32 units)

Theory of Quantitative Chemistry (Chemistry 315) (3)

Quantitative Chemistry Laboratory (Chemistry 316) (1)

Writing for the Chemical Sciences (Chemistry 340) (3)

Introduction to Physical Chemistry (Chemistry 361A,B) (6)

Careers in Chemistry and Biochemistry (Chemistry 390) (1)

General Biochemistry Laboratory (Chemistry 422) (2)

General Biochemistry (Chemistry 423A,B) (6)

Advances in Biotechnology (Chemistry 477) (3)

Senior Research (Chemistry 495) (3)

Introductory Chemical Computation (Chemistry 210) (2)

OR Intermediate Calculus (Math 250A) (4)

Note: Chemistry 371A,B may be substituted for Chemistry 361A,B

Upper-division electives are encouraged. See department handbook or advisor for approved list of courses.

BACHELOR OF SCIENCE IN CHEMISTRY

The Bachelor of Science degree in chemistry is recommended for students planning to go directly into professional chemistry and for those who wish to do graduate work in chemistry. Students who complete this program and include an advanced course in instrumental analysis (such as 3 units of Chemistry 411) and advanced inorganic chemistry (425) qualify for certification by the American Chemical Society. The B.S. in Chemistry requires 55 units of Chemistry courses, 25 units of support courses, and 9 units of adviser-approved career-breadth courses.

Basic Requirements (40 units)

Courses Normally Taken During the First Two Years (These courses are prerequisite to the additional required chemistry courses):

General Chemistry (Chemistry 120A,B) (10)

Organic Chemistry (Chemistry 301A, 305, 306A,B) (10)

Quantitative Chemistry (Chemistry 315) (3)

Fundamental Physics (Physics 225, 226, 227 (1 unit), 255L, 226L) (9)

Analytic Geometry and Calculus (Math 150A,B) (8)

Note: For students planning to pursue a graduate degree, both Physics 227 (3 units) and 227L (1 unit) are highly recommended.

Additional Required Chemistry Courses (20 units)

Quantitative Chemistry Laboratory (Chemistry 316) (1)

Inorganic Chemistry (Chemistry 325) (3)

Physical Chemistry Laboratory (Chemistry 355) (3)

Writing for the Chemical Sciences (Chemistry 340) (3)

Physical Chemistry (Chemistry 371A,B) (6)

Careers in Chemistry and Biochemistry (Chemistry 390) (1)

Senior Research (Chemistry 495) (3)

Upper-division elective (3 units)

The following upper-division chemistry courses do not apply toward the upper-division elective requirement: Chemistry 480A, 490, 495, 496 and 499.

Other Requirements (19 units)

Calculus and Linear Algebra (Math 250A,B) (8)

Introductory Chemical Computation (Chemistry 210) (2)

Career Breadth (9)

Career Breadth Requirements (9 units)

The career breadth requirement is satisfied by taking nine units of upper-division course work directly related to the student's career plans and approved in advance by the undergraduate adviser.

BACHELOR OF ARTS IN CHEMISTRY

The Bachelor of Arts in Chemistry is offered for students who are planning careers which require a sound background in fundamental chemistry, but not at the depth of the B.S. degree. The B.A. is particularly suited for those who plan to go into areas such as secondary education, technical sales, food processing, chemical patent law and forensic sciences. The B.A. in Chemistry requires 36 units of Chemistry courses, 16 units of support courses, and 6 units of adviser-approved career-breadth courses.

Basic Requirements (37 units)

Courses Normally Taken During the First Two Years (These courses are prerequisite to the additional required chemistry courses):

General Chemistry (Chemistry 120A,B) (10)

Organic Chemistry (Chemistry 301A,B, 302) (8)

Quantitative Chemistry (Chemistry 315) (3)

Elementary Physics (Physics 211, 212, 211L, 212L) (8)

Analytic Geometry and Calculus (Math 150A,B) (8)

Additional Required Chemistry Courses (18 units)

Introductory Chemical Computation (Chemistry 210) (2)

Quantitative Chemistry Laboratory (Chemistry 316) (1)

Inorganic Chemistry (Chemistry 325) (3)

Writing for the Chemical Sciences (Chemistry 340) (3)

Introduction to Physical Chemistry (Chemistry 361A,B) (6)

Career Options in Chemistry (Chemistry 390) (1)

Senior Research (Chemistry 495) (2)

Other Requirements (6 units)

Adviser-approved career breadth electives (6)

Chemistry/Pre MBA Program

A student may combine a B.A. in chemistry with a minor in Business Administration to qualify to enroll in and complete an MBA degree at CSUF in one additional year (33 units), provided all entrance requirements for the MBA program have been met. See your department adviser for details.

MINOR IN CHEMISTRY

A minor in Chemistry requires a minimum of 24 acceptable units of chemistry, including general chemistry (Chemistry 120A,B) plus 14 units of upper-division chemistry courses. These courses must be completed with an overall grade-point average of 2.0. A list of approved upper-division chemistry classes is available from the department office.

The chemistry minor is appropriate for students majoring in Biological Science, Geological Science, or Physics. It is also appropriate for students who have an interest in Art Restoration, Environmental Science, Forensic Science, Industrial Administration, Medical Technology, Patent or Environmental Law, or Science Writing. Students with an interest in these or other areas should consult the chemistry department about courses for the minor which are most appropriate for the interests.

MINOR IN BIOTECHNOLOGY

See description of this minor under the Department of Biological Science.

EMPHASIS IN BIOTECHNOLOGY

This emphasis is appropriate for students majoring in biochemistry and interested in gaining employment in nearly any area of the medical and agricultural biotechnology industries, working in academic research laboratories, or pursuing postgraduate degrees in molecular biology or biochemistry.

Required Courses (12 units)

Advances in Biotechnology Lab (Chem 472A,B) (6)

Advances in Biotechnology (Chem 477) (3)

Principles of Gene Manipulation (Biol 412) (3)

Note: Six of the twelve required units may also be applied to meet elective requirements for the B.S. Biochemistry degree.

EMPHASIS IN ENVIRONMENTAL CHEMISTRY

This emphasis provides a concentration in chemistry with respect to the environment. The course work addresses issues of concern such as EPA analysis protocols and other analytical methods, the interactions of chemicals with the air, water, and soil environments, how chemicals interact with living systems, chemical hazards, safe handling and disposal of chemicals, and an introduction to the regulatory framework. Interested students should consult their academic adviser for specific course requirements. The emphasis provides training for individuals interested in becoming environmental scientists and for those interested in graduate programs in this area.

Requirements (18-19 units)

Three of the following (9 units):

Chemistry of Hazardous Materials (Chem 435) (3)

Atmospheric Chemistry (Chem 436) (3)

Environmental Water Chemistry (Chem 437) (3)

Environmental Biochemistry (Chem 438) (3)

Three of the following (3 units):

Optical Spectroscopy (Chem 411A) (1)

Separations (Chem 411C) (1)

Radiochemistry (Chem 411E) (1)

Mass Spectrometry (Chem 411G) (1)

Statistics Applied to the Natural Sciences (Math 338) (4 units)

This course can be substituted for Chemistry 210 in meeting requirements for the major.

Senior Research (Chem 495) (2-3 units).

Topic must be environmentally related.

The Environmental Chemistry Emphasis may be integrated with the B.S. Chemistry with no additional required units by using the above courses to meet career breadth and elective requirements. The environmental chemistry courses also can be used to satisfy requirements for the minor in chemistry.

REQUIREMENTS FOR CHEMISTRY MAJORS SEEKING A TEACHING CREDENTIAL

To qualify for the Subject Matter Preparation Program for the Single Subject Teaching Credential in Science with a concentration in Chemistry, students should elect the B.A. with the following changes:

1. Students substitute Science Education 412 for Chemistry 495.
2. Students must take Biology 171.
3. Students must also take Geological Science 101, 101L and 420.

MASTER OF SCIENCE IN CHEMISTRY

The degree is designed to qualify students for more advanced work in chemistry, to provide preparation that will lead to responsible positions in industrial or government research and development laboratories, and to provide preparation for the effective teaching of chemistry in high schools and community colleges.

The program provides fundamental courses at a level and depth commensurate with those taken during the first year of a doctoral program and provides an introduction to research and research methods.

Admission

Students must meet the university requirements for admittance to the university. This normally requires a baccalaureate degree from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted. (See the section of this catalog on Graduate Admissions for a complete statement and procedures.) In addition to university requirements, in order to achieve conditionally classified standing in the chemistry program, a student must meet the following requirements:

1. An undergraduate degree in chemistry or a selection of science courses deemed as adequate preparation for further study in chemistry by the Department Graduate Committee; and
2. At least a 2.5 GPA in upper division chemistry courses.

Application Deadlines

Applications need to be postmarked no later than March 1st for all fall semester and October 1st for the spring semester. However, deadlines may be changed based upon enrollment projections. Check the university graduate studies website for current information http://www.fullerton.edu/graduate.

Placement Examinations

Each student is required to take and pass placement examinations or take and pass with a grade of B or better the appropriate courses. Graduate students in one of the chemistry options must demonstrate competency by passing four placement examinations in the following five areas of chemistry: analytical, inorganic, organic, physical, and/or biochemistry. Graduate students in the biochemistry option must demonstrate competency in the following areas of chemistry: analytical, biochemistry, and organic as well as either biology or physical chemistry.

A student may take each placement examination three times within the first 13 months of enrolling in the graduate program. A student who does not pass the placement examinations within the 13 months must demonstrate competency by passing with a grade of B or better the appropriate courses within two years after first enrolling.

The appropriate courses for analytical, inorganic, and organic chemistry are Chem 315, 325, and 301B, respectively. For biochemistry, Chem 421 is the appropriate course except for a biochemistry option student who must take Chem 423A and B. For physical chemistry, Chem 361A or B is an appropriate course except for a physical chemistry option student who must take Chem 371A or B.

Classified Standing

In order to proceed from conditionally classified to classified standing, a student must meet the following requirements:

1. Demonstration of competency in any three of the areas, as described above.
2. Approved selection of a research director.
3. An approved study plan.
4. The university graduate-level writing requirement.

Study Plan

Two alternatives are available for the study plan. The student can complete either a laboratory thesis (preferred) or a library thesis.

The degree program consists of 30 units of graduate committee-approved course work completed with a minimum grade-point average of 3.0 in all course work exclusive of Chemistry 505A,B and 599. Each student prepares a study plan in consultation with the graduate program adviser. The study plan must be approved by the student's research director, the department, and the Office of Graduate Studies. All chemistry courses on the study plan must be 400 level or above.

Study plans may contain no more than 2 units of Chemistry 505A,B, and no more than 6 units of Chemistry 599 (3 units for students electing the library thesis alternative).

1. Basic requirements

Courses required of all students:

Chemistry 505A,B Seminar (2)

Chemistry 599 Independent Graduate Research (3-6)

Chemistry 598 Thesis (2-4)

2. Core and Elective Requirements

A minimum of 18 units of adviser-approved coursework are required, at least nine units of which must be the 500-level. Nine of these units must be core courses in the student's area of specialization, as follows:

Analytical: Chemistry 511, 512, and 552

Biochemistry: 540, 542, and 546

Inorganic: Chemistry 425, 431, and 552

Organic: Chemistry 431, 535, and 539

Physical: Chemistry 512, 551, and 552

A specialization on geochemistry is also available. Consult the chemistry graduate adviser for more information. For further details or advisement concerning the M.S. program, contact the graduate adviser.

CHEMISTRY AND BIOCHEMISTRY COURSES

Courses are designated as CHEM in the class schedule.

100 Survey of Chemistry (3)

Prerequisite: one year of high school algebra. The fundamental principles of chemistry; atomic and molecular structure and the application of these principles to contemporary problems. For the nonscience major. (3 hours lecture)

100L Survey of Chemistry Laboratory (1)

Prerequisite: concurrent or prior enrollment in Chemistry 100 or Chemistry 115. Experiments chosen to develop laboratory techniques; chemical principles and their application to environmental and societal problems. (3 hours laboratory)

102 Physical Science for Future Elementary Teachers (3)

(Same as Physics 102)

105 Survey of the Molecules of Life (3)

An introduction to the biochemical processes of life, including metabolism, development, and disease. Recent scientific advances are discussed with emphasis placed on AIDS, cancer, diabetes, and cloning. Scientific methods and ethical issues in scientific research are also examined. For the non-science major. (3 hours lecture)

111 Nutrition and Health (3)

The basics of nutrition; diet, food additives, vitamins, hormones, drugs, disease and related biochemical topics. Current controversies, popular practices, fads and fallacies. For the non-science major. (3 hours lecture)

115 Introductory General Chemistry (4)

Basic chemistry principles. For students with limited background in chemistry who plan to take additional chemistry or other science courses. Does not fulfill chemistry requirements for majors or minors.

120A General Chemistry (5)

Prerequisites: passage of the chemistry placement examination and exemption from or passage of the ELM examination or completion of Chemistry 115 with a grade of C or better. For majors and minors in the physical and biological sciences The principles of chemistry: stoichiometry, acids, bases, redox reactions, gas laws, solid and liquid states, changes of state, modern atomic concepts, periodicity and chemical bonding. Laboratory: elementary physical chemistry and volumetric quantitative analysis. (3 hours lecture, 3 hours laboratory, 3 hours activity) (CAN CHEM 2) (CAN CHEM SEQ A = Chemistry 120A and B)

120B General Chemistry (5)

Prerequisite: Chemistry 120A or equivalent. For majors and minors in the physical and biological sciences, chemical thermodynamics, chemical equilibrium (gaseous, aqueous, acid-base, solubility and complexion), elementary electrochemistry and chemical kinetics. Laboratory: quantitative analysis and elementary physical chemistry; some qualitative analysis. (3 hours lecture, 6 hours laboratory). (CAN CHEM 4) (CAN CHEM SEQ A = Chemistry 120A and B)

120W General Chemistry Workshop (1)

Corequisite: Chemistry 120A. Designated to develop and refresh problem-solving, mathematical and analytical skills needed for success in Chemistry 120A. Activity-based, small-group cooperative learning used extensively. Limited to students enrolled in Chemistry 120A.

125 General Chemistry for Engineers (3)

Prerequisite: Chemistry 120A. The topics are the same as Chemistry 120B but without laboratory. Not open to students with credit in Chemistry 120B. (3 hours lecture)

196 Student-to-Student Tutorials (1-3)

Supervised experience in chemistry teaching through tutoring or assisting in lower-division laboratory or field classes. Consult "Student-to-Student Tutorials" in this catalog for prerequisites and a more complete course description.

210 Introductory Chemical Computation (2)

Prerequisites: Chemistry 120A,B and a major in chemistry or biochemistry. Introduction to the use of spreadsheets and C language programming for chemical problem solving and data management. Chemical algorithms; data analysis and interpretation; graph selection and preparation; data base creation and management; file transfers between programs and operating systems. (2 hours activity/lecture)

295 Directed Study (1)

Prerequisite: consent of instructor. Research in chemistry under the supervision of a chemistry department faculty member. Credit/no credit only. May be repeated for credit. Does not count towards major. (3 hours laboratory per unit)

301A Organic Chemistry (3)

Prerequisites: Chemistry 120A,B. Properties and reactions of aliphatic and aromatic compounds, theories of structure, and reaction mechanisms. For the nonchemistry major or for a B.A. in Chemistry or B.S. in Biochemistry major. (3 hours lecture)

301B Organic Chemistry (3)

Prerequisites: Chemistry 120A,B and 301A. Properties and reactions of aliphatic and aromatic compounds, theories of structure, and reaction mechanisms.For the nonchemistry major or for a B.A. in Chemistry or B.S. in Biochemistry major. (3 hours lecture)

302 Organic Chemistry Laboratory (2)

Prerequisite: Chemistry 301A. Corequisite: Chemistry 301B. Techniques for the synthesis, characterization and isolation of typical aliphatic and aromatic compounds. (6 hours laboratory).

302A Organic Chemistry Laboratory (1)

Chemistry 302A must be taken concurrently with Chemistry 301A. Techniques for the synthesis, isolation and characterization of typical aliphatic and aromatic compounds. Students wishing to fulfill all of their organic chemistry laboratory requirements in a single semester should enroll in Chemistry 302.

302B Organic Chemistry Laboratory (1)

Chemistry 302B must be taken concurrently with Chemistry 301B. Techniques for the synthesis, isolation and characterization of typical aliphatic and aromatic compounds. Students wishing to fulfill all of their organic chemistry laboratory requirements in a single semester should enroll in Chemistry 302.

303A,B,C Biotechnology: Science, Business, and Society (1-3)

Prerequisites: completion of General Education Categories I, II, and III.A.1 and 2. Chemistry 303A is a prerequisite for Chemistry 303B and 303C. Major applications of modern biotechnology will be explored in a lecture/discussion/presentation format that includes guest speakers from industry. (3 hours lecture/discussion for 5 weeks)

303A Biotechnology: Business and Society (1)

303B Biotechnology: Medical Biotechnology (1)

303C Biotechnology: Agricultural and Environmental Biotechnology (1)

305 Organic Chemistry (3)

Prerequisite: Chemistry 301A. Corequisite: Chemistry 306B. Continuation of Chemistry 301A for the B.S. in Chemistry major.

306A Organic Chemistry Laboratory (2)

Prerequisites: Chemistry 120 A,B. Corequisite: Chemistry 301A. Techniques for synthesis, isolation and characterization of typical aliphatic and aromatic compounds, with applications of instrumental and spectroscopic methods for the B.S. in Chemistry major.

306B Organic Chemistry Laboratory (2)

Prerequisites: Chemistry 301A, 306A. Corequisite: 305. Continuation of Chemistry 306A for the B.S. in Chemistry major.

311 Nutrition and Disease (3)

Prerequisite: Chemistry 111 or Biology 101. Relationship between nutrients and disease, with an emphasis on cancer, atherosclerosis and infectious illness. Dietary factors that modify and/or contribute to the disease process from the viewpoints of physiology, biochemistry and immunology. Not applicable to the major or minor. (3 hours lecture) (Same as Biology 311)

313A,B,C Environmental Pollution and Its Solutions: Air Pollution, Water Pollution, Land Pollution (1-3)

Prerequisites: completion of General Education Categories I, II, and III.A. Human pollution of the Earth's atmosphere, 313A, aqueous environment, 313B, and terrestrial environment, 313C, and means to ameliorate this pollution. Historical examples, current cases, and future prospects. (3 hours lecture/discussion for 5 weeks)

313A Environmental Pollution and Its Solutions: Air Pollution (1)

313B Environmental Pollution and Its Solutions: Water Pollution (1)

313C Environmental Pollution and Its Solutions: Land Pollution (1)

315 Theory of Quantitative Chemistry (3)

Prerequisite: Chemistry 120B. Physics 211, 212 or Physics 225. Physics 226 strongly recommended. Modern analytical chemistry; aqueous and non-aqueous equilibrium calculations, electrochemistry, spectrometry, and contemporary separation methods with emphasis on chromatography. (3 hours lecture)

315W Quantitative Chemistry Workshop (1)

Corequisite: Chemistry 315. Designed to enhance knowledge and skills needed for success in Chemistry 315. Emphasis on review of general chemistry, problem-solving skills, study and exam skills, and their application to quantitative chemistry. Credit/No Credit only.

316 Quantitative Chemistry Laboratory (1)

Prerequisite: Chemistry 315. Corequisite: Chemistry 210. Modern analytical chemistry laboratory: polyprotic acids, liquid chromatography, electrochemistry, absorption spectroscopy (ultraviolet/visible, infrared, atomic). (3 hours laboratory)

325 Inorganic Chemistry (3)

Prerequisite: Chemistry 301B or 305. The chemistry of the main group elements and an introduction to transition metal chemistry. (3 hours lecture)

340 Writing for the Chemical Sciences (3)

Prerequisites: Upper-division standing, English 101 and two semesters of chemistry beyond general chemistry. Design and preparation of scientific manuscripts and presentations. Emphasizes practice in writing, American Chemical Society writing guidelines, peer-review and critical analysis of scientific literature.

355 Physical Chemistry Laboratory (3)

Prerequisite: Chemistry 316. Corequisite: Chemistry 361B or 371B. Experiments in chemical synthesis, instrumental analysis and physical chemistry. Laboratory training and written presentation of theory, data and results are emphasized. (1 hour lecture, 6 hours laboratory).

361A, B Introduction to Physical Chemistry (3, 3)

Prerequisites: Mathematics 150A,B and Physics 211, 212 or 225, 226, Chemistry 301A,B or 305. Corequisite: Chemistry 315. Thermodynamics and kinetics; properties of gases and solutions; molecular structure and energies and application to spectroscopic techniques; liquids, phase equilibria, thermodynamics of multicomponent systems with application to the life sciences. (3 hours lecture)

371A,B Physical Chemistry (3,3)

Prerequisites: Mathematics 250A, Physics 225, 226 and Chemistry 301A. Corequisite: Mathematics 250B and Chemistry 315. Thermodynamics, solutions, chemical and phase equilibria, electrochemistry, transport phenomena, introduction to atomic and molecular structure, rotation and vibration spectroscopy, statistical mechanics, and kinetics. (3 hours lecture)

390 Careers in Chemistry and Biochemistry (1)

Prerequisite: Chemistry 120B. Career options in chemistry. Credit/no credit only. (1 hour lecture)

395 Undergraduate Research (1-3)

Prerequisites: Completion of one upper-division course in chemistry, one semester of experience working in a research laboratory, and consent of instructor. Independent research in chemistry or biochemistry under the guidance of a department faculty member. May be repeated for credit. Does not count towards major. (3 hours per week per unit). (4 units maximum)

411A-G Instrumental Analysis (1)

Prerequisites: Chemistry 315 and 316. Corequisite for 411A: Chemistry 361B or 371B or consent of instructor. Students wishing an ACS certified degree must take three units. (1 hour lecture, 3 hours laboratory for 5 weeks)

A. Optical Spectroscopy (UV/visible, infrared, atomic absorption, flame emission)

B. Magnetic Resonance (nuclear magnetic resonance, electron spin resonance)

C. Separations (high performance liquid chromatography, gas chromatography)

E. Radiochemistry

G. Mass spectrometry (conventional magnetic sector, quadruple, Fourier transform, tandem, and time-of-flight; hyphenated techniques including gas chromatography (GC-MS), liquid chromatography (LC-MS).

421 Biological Chemistry (3) (Formerly 322)

Prerequisite: Chemistry 301A. Survey of biochemistry designed for biology majors. This course will cover major areas of biochemistry, including intermediary metabolism and compounds of biochemical interest. The focus of this one-semester course will be on the application of biochemistry and the biochemical foundation of health science. (3 hours lecture)

422 General Biochemistry Laboratory (2)

Prerequisites: Chemistry 302A or 306A and 316. Corequisite: Chemistry 421 or 423A. The chemistry and metabolism of carbohydrates, nucleic acids, lipids and proteins; techniques of enzyme chemistry and isolation; research methods. (6 hours laboratory)

423A General Biochemistry (3)

Prerequisite: Chemistry 301B or 305. Corequisite: Chemistry 315. Survey of biochemistry designed for Biochemistry majors; structural chemistry and function of biomolecules, bioenergetics and intermediary metabolism. (3 hours lecture)

423B General Biochemistry (3)

Prerequisite: Chemistry 423A5. Corequisite: Chemistry 315. Survey of biochemistry designed for Biochemistry majors; structural chemistry and function of biomolecules, central metabolism; replication and expression of the genetic material. (3 hours lecture)

425 Advanced Inorganic Chemistry (3)

Prerequisites: Chemistry 325 and 361A,B or 371A,B. The bonding, structure and reactivity of transition and lanthanide elements. Molecular orbital and ligand field theory, classical metal complexes and organometallic chemistry of the transition elements. (3 hours lecture)

431 Advanced Organic Chemistry (3)

Prerequisites: Chemistry 301B or 305 and 361A,B or 371A,B or consent of instructor. Theoretical and physical aspects of organic chemistry. The modern concepts of structure, and reaction mechanisms. (3 hours lecture)

435 Chemistry of Hazardous Materials (3)

Prerequisite: Chemistry 301B. An in-depth examination of hazardous chemicals; organic and inorganic air- and moisture-sensitive compounds, reactive metals; chemical reactivity patterns; chemical compatibilities; storage and handling; methods of disposal and waste containment; Federal and local regulations; case histories. (3 hours lecture)

436 Atmospheric Chemistry (3)

Prerequisite: Chemistry 315 or consent of instructor. Chemistry and photochemistry of the troposphere and stratosphere, both natural and polluted. Includes fundamental reaction kinetics and mechanisms, monitoring techniques, smog chamber, field and modeling studies. (3 hours lecture)

437 Environmental Water Chemistry (3)

Prerequisite: Chemistry 315. Chemical characteristics of fresh and oceanic water; major water pollutant classes, origins, environmental chemical transformations, effects, abatement, and fates; chemical methods for determining water quality, large scale processes for water treatment. (3 hours lecture)

438 Environmental Biochemistry (3)

Prerequisite: Chemistry 301B. Effects of current agricultural, industrial and mechanical practices on the composition, metabolism and health of soil, plants, animals and man, from a biochemical perspective; mechanism of action and degradation of common agricultural chemicals and industrial pollutants. (3 hours lecture)

445 Nutritional Biochemistry (3)

Prerequisite: Chemistry 423A or Chemistry 421. Nutrition, metabolism and excretion of carbohydrates, proteins, fats, vitamins, major minerals and trace elements from a biochemical perspective. Relevant variations in dietary practices related to life stages and specific illnesses. (3 hours lecture)

472A Advances in Biotechnology Lab (3)

(Same as Biology 472A)

472B Advances in Biotechnology Laboratory (3)

(Same as Biology 472B)

473 Introduction to Bioinformatics (3)

(Same as Biology 473)

477 Advances in Biotechnology (3)

(Same as biology 477)

480A Topics in Contemporary Chemistry (1)

Prerequisite: junior or senior standing in chemistry. Research seminar dealing with topics of current interest in chemistry such as photochemistry, biochemistry, analytical chemistry and organometallic chemistry. Credit/no credit only. Not applicable toward master's degree. May be repeated for credit.

480T Topics in Contemporary Chemistry (2-3)

Prerequisite: junior or senior standing in chemistry. Special lecture topics of current interest in chemistry. May be repeated for credit. (1 hour lecture per unit)

480M MARC Proseminar (1)

(Same as Biology 480M)

490 Internship in Chemistry and Biochemistry (1-2)

Prerequisites: junior or senior standing in chemistry and consent of instructor. Internship in chemistry. Work on projects in industrial, governmental or medical laboratories. May count as career breadth requirement units for chemistry majors. May be repeated once. Does not count toward M.S. degree.

495 Senior Research (1-3)

Prerequisites: three one-year courses in chemistry, Chemistry 390, and consent of instructor. Corequisite: Chemistry 340. The methods of chemical research through a research project under the supervision of one of the Department faculty. May be repeated for credit. Only 6 units may apply toward B.A. or B.S. degree (3 hours per week per unit)

496 Student-to-Student Tutorials (1-3)

Supervised experience in chemistry teaching through tutoring or assisting in laboratory or field classes. Consult "Student-to-Student Tutorials" in this catalog for prerequisites and a more complete course description.

498 Senior Thesis (2)

(Same as Biology 498)

499 Independent Study (1-3)

Prerequisites: junior or senior standing and completion of two one-year courses in chemistry. Special topics in chemistry selected in consultation with the instructor and approval of department chair. May be repeated for credit. Only six units may apply toward B.A. or B.S. degree.

505A Seminar (Participation) (1)

Prerequisites: graduate standing and consent of department. Student attendance at presentations by invited scientists on topics of current interest in chemistry. May not be repeated for credit. (1 hour seminar)

505B Seminar (Presentation) (1)

Prerequisites: Chemistry 505A, graduate standing and consent of the department. Student presentation of recent contributions to the chemical literature. May not be repeated for credit. (1 hour seminar)

511 Theory of Separations (3)

Prerequisites: Chemistry 355 and 361A,B or 371A,B. The theory, application and limitations of physical and chemical separation techniques; chromatography. (3 hours lecture)

512 Advanced Instrumentation (Formerly 580T) (3)

Prerequisite: Chemistry 315. Spectroscopic instrumentation components and systems. Includes laser spectroscopy, mass spectroscopy, chemical sensor, process control, surface science, and microscopy methods; vacuum technology, optics, electro-optics, and electronics components; design and repair of instrumentation. (3 hours)

535 Organic Synthesis (3)

Prerequisites: Chemistry 361A,B or 371A,B and 301B or 305. Methods of synthetic organic chemistry and their application to construction of organic molecules. (3 hours lecture)

539 Chemistry of Natural Products (3)

Prerequisite: Chemistry 301B or 305. The biosynthesis of the alkaloids, terpenes, steroids and other natural products of plant and animal origin. (3 hours lecture)

543 Physical Biochemistry (3)

Prerequisites: Chemistry 361A,B or 371A,B, 322 or 423A,B or consent of instructor. Methods for measuring physical properties of proteins and nucleic acids. Thermodynamic and hydrodynamic aspects. (3 hours lecture)

546 Metabolism and Catalysis (3)

Prerequisite: Chemistry 421 or 423A,B or consent of instructor. Regulation of bio-synthetic and degradative reactions in living systems. The control of enzyme activity and concentration. Mechanisms of hormone action. (3 hours lecture)

551 Quantum Chemistry (3)

Prerequisites: Chemistry 371A,B. Postulates and theories of approximation methods in quantum chemistry, the electronic structure of atoms and molecules, chemical bonds, group theory and applications. (3 hours lecture)

552 Kinetics and Spectroscopy (Formerly 580T) (3)

Prerequisite: Chemistry 361B or 371B. Kinetics and spectroscopy of chemical and biochemical systems in the gas phase, in the liquid phase, and on surfaces.

580T Topics in Advanced Chemistry (1-6)

Prerequisite: graduate standing in chemistry. Current research topics in chemistry in the area of analytical, organic, inorganic, physical
chemistry and biochemistry. May be repeated for credit. (1 hours seminar period)

597 Project 1-6

Prerequisites: an officially appointed project committee and consent of the department chair. Guidance in the preparation for a project for the master's degree.

598 Thesis (1-6)

Prerequisite: an officially appointed thesis committee. Guidance in the preparation of a thesis for the master's degree.

599 Independent Graduate Research (1-6)

Prerequisite: graduate standing in chemistry. May be repeated for credit.

DEPARTMENT CHAIR

Isaac Cardenas

DEPARTMENT OFFICE

Humanities 314

DEPARTMENT WEBSITE

http://hss.fullerton.edu/Chicano

PROGRAMS OFFERED

Bachelor of Arts in Ethnic Studies

Option in Chicano Studies

Minor in Chicano Studies

FACULTY

Isaac Cardenas, Robert Castro, Dagoberto Fuentes, Nancy Porras-Hein, Naomi Quinonez

ADVISERS

Consult the department chair.

INTRODUCTION

Chicana and Chicano Studies is an interdisciplinary field, drawing from and contributing to the humanities, social sciences and the arts. The department offers a unique opportunity for students to gain an understanding and awareness of the vital presence and increasing significance of the Chicano population in the United States. Studies of the Chicana/o experience include history, culture, art, literature, music and contemporary issues, such as education, family identity, immigration and citizenship, ethnicity and gender. Particular emphasis is also given to other Latino cultures in the United States. Community service learning and research is an important aspect of the curriculum.

Because of its interdisciplinary scope, Chicana/o Studies offers a broad liberal arts education with theoretical perspectives and critical thinking skills to prepare students for rewarding careers in the public and private sector. Chicana/o Studies graduates enter careers in business, communications, counseling, government science, law, social services and teaching. The major also provides a strong foundation for graduate studies.

The Chicano Studies option consists of 36 units, of which a minimum of 24 units must be upper-division. Students must consult with their advisers for an approved study plan. In addition, a minor consisting of 24 units is offered in Chicano Studies.

INTERNATIONAL EMPHASIS

The Department of Chicana and Chicano Studies offers courses relevant to Mexico and Latin America that incorporate humanities and social sciences perspectives. Issues of culture and ethnicity are integrated in all of the coursework. This ensures that students understand their own culture in relationship to other cultures and therefore develop a global perspective. Chicana/o Studies majors are encouraged to explore international educational opportunities, either through the CSU international programs, or through any one of the numerous other international programs offered by academic institutions throughout the United States. The Department of Chicana/o and Chicano Studies will cooperate fully in providing academic credit in Chicano Studies for such experiences where appropriate.

TEACHING CREDENTIAL

Because Chicana/o Studies is interdisciplinary, the major provides a particularly fine background for elementary school teaching (K-8) and for secondary school teaching (7-12) in the social sciences. Undergraduates are encouraged to work with the Center for Careers in Teaching (714-278-7130) as early as possible in their academic careers to plan efficient course selections for general education, the major and electives. With careful planning, it may be possible to enter the credential program in the senior year of the bachelor's degree. Postgraduate students should contact the Admission to Teacher Education office in the School of Education (714-278-3411) to obtain information on attending an overview presentation.

BACHELOR OF ARTS IN ETHNIC STUDIES
OPTION IN CHICANO STUDIES

The Bachelor's of Arts in Ethnic Studies (Chicana/o Studies) requires a minimum of 120 units which includes courses for the option, General Education, all University requirements, and free electives.

A total of 36 units from the following courses are required for the option.

Lower-Division (6 units minimum)

Chicana/o 106 Intro to Chicano Studies (3)

Chicana/o 220 Mexican Heritage (3)

Upper-Division (24 units minimum)

Required Courses (9 units)

Selected from the following courses:

Chicana/o 330 The Evolution of Mexican Literature (3)

Chicana/o 331 The Chicano Child (3)

Chicana/o 340 Mexican/Chicano Intellectual Thought (3)

Chicana/o 345 History of the Chicano (3)

Chicana/o 353 Mexico Since 1906 (3)

Upper-Division Writing Requirement (3 units)

Chicana/o 400 Research and Writing in Ethic Studies (3)

OR English 301 Advanced College Writing (3)

Electives (12 units minimum)

Chicana/o 101 Introduction to Ethnic Studies (3)

Chicana/o 102 Communication Skills (3)

Chicana/o 190 Survey of American History with Emphasis on Ethnic Minorities (3)

Chicana/o 302 Ancient Mexican Culture (3)

Chicana/o 303 Cultural Differences in Mexico and the Southwest (3)

Chicana/o 304 Music of Mexico (3) (same as Music 304)

Chicana/o 305 The Chicano Family (3)

Chicana/o 306 Barrio Studies (3)

Chicana/o 313 La Chicana (3)

Chicana/o 315 Chicano/Latino Theater (3)

Chicana/o 316 The Chicano Music Experience (3)

Chicana/o 330 Evolution of Mexican Literature (3)

Chicana/o 331 The Chicano Child (3)

Chicana/o 332 The Chicano Adolescent (3)

Chicana/o 336 Main Trends in Spanish-American Literature (3)

Chicana/o 337 Contemporary Chicano Literature (3)

Chicana/o 340 Mexican/Chicano Intellectual Thought (3)

Chicana/o 345 History of the Chicano (3)

Chicana/o 353 Mexico Since 1906 (3)

Chicana/o 360 Chicanos and the Law (3)

Chicana/o 433 Mexican Literature Since 1940 (3)

Chicana/o 450 The Chicano and Contemporary Issues (3)

Chicana/o 460 The Chicano and Politics (3)

Chicana/o 480 The Immigrant and the Chicano (3)

Chicana/o 499 Independent Study (1-3)

MINOR IN CHICANO STUDIES

The minor in Chicano Studies consists of 24 units in the following areas:

Required lower-division courses (6 units)

Chicana/o 106 Intro to Chicano Studies (3)

Chicana/o 220 Mexican Heritage (3)

Required upper-division courses (9 units)
(to be selected from the following)

Chicana/o 330 The Evolution of Mexican Litertaure (3)

Chicana/o 331 The Chicano Child (3)

Chicana/o 340 Mexican/Chicano Intellectual Thought (3)

Chicana/o 345 History of the Chicano (3)

Chicana/o 353 Mexico Since 1906 (3)

Approved Electives

Nine units of approved course work in lower- and upper-division classes that are selected by the adviser.

GRADUATE STUDY

The Department of Chicana and Chicano Studies offers courses for advanced study in the following graduate degree programs:

Master of Science in Education: Bilingual/Bicultural Concentration

Master of Arts in Spanish: Bilingual Concentration

CHICANA AND CHICANO STUDIES COURSES

Courses are designated as CHIC in the class schedule.

101 Introduction to Ethnic Studies (3)
(Same as Afro-Ethnic Studies 101)

102 Communication Skills (3)

The basic communication skills including oral and written expression. A unit on the mechanics of writing and reporting on a term paper.

106 Introduction to Chicano Studies (3)

Prerequisite: Completion of General Education category III.C.1. The role of the Chicano in the United States. The Chicano's cultural values, social organization, urbanization patterns, and the problems in the area of education, politics and legislation.

108 Linguistics and Minority Dialects (3)
(Same as Linguistics 108)

190 Survey of American History with Emphasis on Ethnic Minorities (3)

(Same as History 190 and Afro-Ethnic Studies 190. This course fulfills Title V, Statutory Requirements.)

220 Mexican Heritage (3)

The basic characteristics of the Mexican, especially the Chicano society and culture. From 1519 to the present. Emphasis on the arts, literature and history of Mexico and the Chicano in the United States.

302 Ancient Mexican Culture (3)

An historical and cultural survey of the principal pre-Columbian cultures of Mexico and their significance for Mexican society.

303 Cultural Differences in Mexico & the Southwest (3)

Prerequisite: completion of General Education category III.C.1. The cultural conflicts in Mexico as seen by the contemporary thinkers of Mexico and the United States. Urban and rural problems.

304 Music of Mexico (3)

(Same as Music 304)

305 The Chicano Family (3)

The Chicano family development as an American social institution. Historical and cross-cultural perspectives. The socio-, and psycho-dynamics of the Chicano family.

306 Barrio Studies (3)

Prerequisite: Chicana/o Studies 220 or consent of instructor. The major characteristics of the barrio. Supervised fieldwork in the barrio is required. Analysis of the barrio or agency will be made after field-work is completed. (2 hours lecture, 3 hours fieldwork)

313 La Chicana (3)

Prerequisite: completion of General Education category III.C.1. The cultural influences that the family, religion, economic status and community play upon the lifestyles, the values and the roles held by Chicanas. (Same as Women's Studies 313)

315 Chicano/Latino Theater (3)

Prerequisite: completion of General Education category III.B.1. or III.B.2. Analysis of contemporary Chicano/Latino theater in relation to its historical evolution. Emphasis on plays, playwrights and theater groups expressing the Chicano/Latino experience. Extensive play reading. (Same as Theater 315)

316 The Chicano Music Experience (3)

Mexican folk and popular music and its relationship to the culture which produced it. The pre-Cortesian period to the present in Mexico and in the Southwestern United States.

330 The Evolution of Mexican Literature (3) (Formerly 430)

Prerequisite: completion of the General Education Category III.B.2. Survey and analysis of the Nahautl, Mexican and Chicano literature from the pre-Columbian period to the present. Not applicable for graduate degree credit.

331 The Chicano Child (3) (Formerly 431)

Prerequisite: completion of General Education category III.C.1. The Chicano child from preschool through grade six. Motor, physical, social, intellectual and emotional growth and development and their effect on school adjustment and achievement. Observation of preschool and grade school children.

332 The Chicano Adolescent (3)

Prerequisite: completion of the General Education category III.C.1 The Chicano adolescent's social, intellectual and emotional growth and development. The bicultural pressures from the barrio, family structure, school and achievement values.

333 Mexican Literature Since 1940 (3) (Formerly 433)

Prerequisite: completion of General Education category III.B.2. The literature of Mexico since 1940: Carlos Fuentes, Luis Spota, Rodolfo Usigli, Xavier Villarrutia, Juan Jose Arreola, Octavio Paz, Roberto Blanco Moheno and Luis G. Basurto. Not applicable for graduate degree credit.

336 Main Trends in Spanish-American Literature (3)

The main currents of Spanish-American literature emphasizing contemporary works. The relation between the artistic expression and the ideological values of the period.

337 Contemporary Chicano Literature (3)

Prerequisite: Chicana/o Studies 106, or 220, or consent of instructor. The modern Chicano writers in the United States: Allurista, Corky Gonzales, Octavio Romano, El Teatro Campesino and the major Chicano magazines and newspapers.

340 Mexican/Chicano Intellectual Thought (3) (Formerly 440)

Prerequisite: Completion of General Education category III.B.2. The emergence of the Chicano movement dealing with political, economic and sociological facets. The writing of Nahautl, Spanish, Spanish-American, Chicano, and contemporary writers. Not applicable for graduate degree credit.

345 History of the Chicano (3)

Prerequisite: completion of the General Education category III.C.1. History of the Chicano from the pre-Columbian period to the present. The Chicanos' changing role in the United States, their cultural identity crisis and their achievements.

353 Mexico Since 1906 (3)

Prerequisite: completion of General Education category III.C.1. The Mexican Revolution of 1910 stressing the political, economic and social aspects as well as its contributions in the fields of art, literature and social reforms.

360 Chicanos and the Law (3)

The relationship between Chicanos and the legal and judicial system, including the administration of justice, Chicano-police relations, and Chicanos and the prison system. Guest speakers will be a regular feature.

400 Research and Writing in Ethnic Studies (3)
(Same as Asian American 400)

450 The Chicano and Contemporary Issues (3)
The socioeconomic and political problems confronting the Chicano including proposed solutions. The effect that social institutions have had on the Chicano community.

460 The Chicano and Politics (3)
Theory of urban politics and evaluation of issues that affect the Chicanos and American society. Evaluations and surveys will be made on political organizations in Hispanic-surnamed communities. (Same as Political Science 460)

480 The Immigrant and the Chicano (3)
Mexican immigration to the United States and its social, economic and political impacts on the Chicano and non-Chicano communities and other immigrant groups.

499 Independent Study (1-3)
Prerequisites: senior standing and approval by the department chair and instructor(s) in charge of directing the study. An opportunity to do independent study, under the guidance of the faculty, on a subject of special interest to the student.

599 Independent Graduate Research (1-3)
Prerequisites: consent of instructor and classified status. Individual research for Chicana and Chicano Studies components in Master of Arts in Bilingual Studies (Spanish), Master of Science in Bilingual Education (Education) and related programs. Maximum of 3 hours credit.

DIVISION OF CHILD, FAMILY, AND COMMUNITY SERVICES

DEPARTMENT OF CHILD AND ADOLESCENT STUDIES

DEPARTMENT CHAIR

Patricia A.Szeszulski

DEPARTMENT OFFICE

Education Classroom 105

DEPARTMENT WEBSITE

http://hdcs.fullerton.edu/CAS/studentstudent.htm/

PROGRAMS OFFERED

Bachelor of Science in Child and Adolescent Development

Minor in Child and Adolescent Development

FACULTY

Sylvia Alva, Jacqueline Coffman, Leslie Grier, Enid Gruber, Diana Wright Guerin, Ellen Junn, Leigh Hobson, Kari Knutson Miller, Sharon Seidman Milburn, Pamella Oliver, Mark Runco, Susan Shipstead, Patricia A. Szeszulski, Sharon Willmer, Shelli Wynants, Shu-Chen Yen

INTRODUCTION

The Department of Child Adolescent Studies takes an interdisciplinary approach to the study of development from conception through adolescence that emphasizes interrelationships between the developing person, family, and community. The curriculum examines empirically derived biological-physical, socio-emotional, and cognitive developmental milestones, as well as individual differences and common variations in development. This applied program addresses developmentally appropriate educational, socialization, and parenting practices within the context of key theoretical paradigms. Course topics focus on observation skills, knowledge of research methodology and assessment, and the interaction of contextual and individual factors as they shape development, including the influences of biology, gender, families, peers, institutional practices, societal change, social class, communities, culture, and public policies.

The Child and Adolescent Development major is designed to provide students with the knowledge and skills to interact effectively with children, adolescents, and families in a variety of educational and service settings. Effective work with and/or on behalf of children, adolescents, and families in diverse environments is informed by research, relevant professional and ethical standards, and legal mandates. Because such settings change dramatically with time, the curriculum provides students with a variety of tools to acquire, communicate, and disseminate information so that they may develop a lifelong pursuit of developmental inquiry. Course work emphasizes critical thinking, proficiency with field relevant technology resources, communication skills, and the intellectual framework and methods necessary for in-depth interdisciplinary study.

The Bachelor of Science in Child and Adolescent Development provides broad undergraduate preparation for careers in child and adolescent-related professions, including elementary education, special education, early care and education, child/adolescent guidance, and a variety of youth-related social service careers as well as graduate study in disciplines such as child development, counseling, developmental psychology, and social work.

ACADEMIC ADVISEMENT

Academic advisement is provided at both the Fullerton and El Toro campuses through regularly scheduled Overview of the Major sessions and individual student advising appointments. During their first semester as a major, students are required to attend an Overview of the Major session and are expected to consult with a department adviser to develop an academic plan. Consult the department website or contact the department office for a schedule of Overview of the Major sessions and to arrange an individual advisement appointment.

BACHELOR OF SCIENCE IN CHILD AND ADOLESCENT DEVELOPMENT

The Bachelor of Science in Child and Adolescent Development requires the successful completion of a minimum of 51 units in the major consisting of required core classes, advisement track courses, fieldwork, and interdisciplinary courses from other departments. A grade of C or better is required in all courses applied to the major.

Required Core Classes (18 units)

Prerequisites are strictly enforced in the four-semester core sequence.

Child/Adolescent Studies 300 Elements of Effective Professional Communication (3)

Child/Adolescent Studies 301 Inquiry and Methodology in Development (3)

Child/Adolescent Studies 310 Assessing and Observing Development (3)

Child/Adolescent Studies 325A Conception through Adolescence (3)

Child/Adolescent Studies 325B Age 9 through Adolescence (3)

Child/Adolescent Studies 490T Senior Seminar (3)

Advisement Track (15 units)

Each student, in consultation with a department adviser, selects a 15-unit advisement track in an area of specialization. Standard advisement tracks include elementary education, special education, early care and education, adolescent/youth services, preparation for master's/doctoral degrees or other specialized training, and general studies in child and adolescent development.

Fieldwork (6 units)

Students take the core practicum course (3 units) and one advisement track-specific practicum course (3). Students must complete a minimum of 60 hours of supervised fieldwork while enrolled in each of the two required fieldwork courses.

Core Practicum Course (3 units)

Child/Adolescent Studies 394 Practicum Seminar (2) and

Child/Adolescent Studies 394L Practicum in Child Development (1)

One of the following advisement track-specific practicums (3 units)

Child/Adolescent Studies 464 Seminar (2) and

Child/Adolescent Studies 464L Practicum in Early Care and Education (1)

OR Child/Adolescent Studies 484 Seminar (2) and

Child/Adolescent Studies 484L Practicum in Adolescent/Youth Services (1)

OR Child/Adolescent Studies 494 Seminar (2) and

Child/Adolescent Studies 494L Practicum in Child, Family, and Community Involvement (1)

OR Ed Elm 315A Lecture (2) and

Ed Elm 315B Introduction to Elementary Teaching Lab (1)

Interdisciplinary Study

Biology

Biology 305 Human Heredity and Development (3)

Cultural Diversity Class - Take one of the following:

Afro/Afro Ethnics 310 Black Women in America (3)

Afro/Afro Ethnics 311 Intracultural Socialization Patterns (3)

American Studies 301 The American Character (3)

American Studies 450 Women in American Society (3)

Anthro 450 Culture and Education (3)

Asian Amer 300 Introduction to Asian American Studies (3)

Asian Amer 308 Asian American Women (3)

Asian Amer 340 Asian American Communication (3)

Asian Amer 342 Asian American Families (3)

Chicano 305 The Chicano Family (3)

Chicano 331 The Chicano Child (3)

Sociology 357 Minority Group Relations (3)

Speech Comm 320 Intercultural Communication (3)

Women's Studies 302 Introduction to Intercultural Women's Studies (3)

Sociology - Take one of the following:

Sociology 451 Sociology of the Family (3)

Sociology 453 Child in American Society (3)

Special Education - Take one of the following:

Special Ed 371 Exceptional Individual (3)

Special Ed 400 Early Childhood Special Education (3)

MINOR IN CHILD AND ADOLESCENT DEVELOPMENT

For a minor in Child and Adolescent Development, 21 units are required. A minimum of 12 units of coursework for the minor must be distinct from coursework that is applied to the major. No more than six units of lower-division coursework may be applied to the minor.

Core Courses (9 units)

Child/Adolescent Studies 301 Inquiry and Methodology in Development (3)

OR approved alternate

Child/Adolescent Studies 325A Conception to Age 8 (3)

Child/Adolescent Studies 325B Age 9 through Adolescence (3)

Practicum (3 units)

Take one of the following:

Child/Adolescent Studies 394 Practicum Seminar (2) and

Child/Adolescent Studies 394L Practicum in Child Development (1)

OR Child/Adolescent Studies 464 Seminar (2) and

Child/Adolescent Studies 464L Practicum in Early Care/Education (1)

OR Child/Adolescent Studies 484 Seminar (2) and

Child/Adolescent Studies 484L Practicum in Adolescent/Youth Services (1)

OR Child/Adolescent Studies 494 Seminar (2) and

Child/Adolescent Studies 494L Practicum in Child, Family, and Community Involvement (1)

OR Ed Elm 315A Lecture (2) and

Ed Elm 315B Introduction to Elementary School Teaching: Fieldwork (1)

Electives (9 units)

Nine units selected in consultation with department adviser.

MULTIPLE SUBJECTS TEACHING CREDENTIAL PREPARATION

A Multiple Subjects Teaching Credential is required to teach in California public elementary schools. Completion of either the Multiple Subject Matter Preparation Program (MSMPP) or the California Subject Examination for Teacher (CSET): Multiple Subjects is an entrance requirement for Multiple Subjects Teaching Credential programs. Further information is available from the Center for Careers in Teaching.

BLENDED TEACHER EDUCATION PROGRAM

First-time freshman interested in teaching in a California public elementary school may apply to the Blended Teacher Education Program (BTEP). Child and Adolescent Development majors in the BTEP combine their bachelor's degree in CHAD with credential program classes to earn a baccalaureate degree and Level I credential in four calendar years. Further information is available from the Center for careers in Teaching.

CHILD AND ADOLESCENT STUDIES COURSES

Courses are designated as CAS in the Class Schedule.

210 Orientation to the Field of Child Development (3)

Introduction to the field of child development. Survey of programs and services for children, adolescents, and young adults, and exploration of professional opportunities, organizations, and publications.

300 Elements of Effective Professional Communication (3)

Prerequisite: sophomore status. Styles of written communication common to child development programs and services. Reporting on theories and research to multiple audiences (e.g. other professionals, parents, community groups, etc.) in written and oral formats. Meets upper-division baccalaureate writing course requirement for Child and Adolescent Development majors.

301 Inquiry and Methodology in Development (3)

Prerequisite: sophomore status. Framework and methods necessary for interdisciplinary study of child development. Conducting library research, reading and writing scientific reports, using descriptive and inferential statistics, developing computer literacy, and exploring developmental methodology and theory. (2 hours lecture, 2.5 hours laboratory)

310 Assessing and Observing Development (3)

Prerequisites: Child/Adolescent Development 300, 301. Purposes and methods associated with assessing and observing child and adolescent development. Topics include selection of appropriate methods, survey of standardized measures, ethics, and interpretation and implications of data.

312 Human Growth and Development (3)

Prerequisite: Psychology 101 or consent of instructor. Biological/physical, socio-emotional, cognitive development across the lifespan.

325A Conception through Age 8 (3)

Prerequisites: Child/Adolescent Studies 300, 301. Research, theories and their application to biological/physical, socio-emotional, and cognitive development from conception through age 8.

325B Age 9 through Adolescence (3)

Prerequisites: Child/Adolescent Studies 300, 301, 325A. Research, theories and their application to biological/physical, socio-emotional, and cognitive development from age 9 through adolescence.

330 Adolescence and Early Adulthood (3)

Prerequisite: Psychology 101 or consent of instructor. Examination of human development during and following adolescence. Community resources and services for adolescents and their families. Consequences of adolescent experiences for later development.

350 Chid Development in Elementary School Settings (3)

Prerequisite: completion of General Education Category III.C.1. Positive developmental outcomes associated with programs/materials used in elementary school contexts are examined. Developmental theory and research findings are linked to these practice alternatives.

394 Practicum Seminar in Child and Adolescent Development (2)

Prerequisite: Child/Adolescent Studies 300, 301, 325A or approved survey of development course. Co-requisite: Child/Adolescent Studies 394L. Classroom analysis of field experience focusing on linkages between theory and practice and skills and techniques of child development professionals.

394L Practicum in Child and Adolescent Development (1)

Co-requisite: Child/Adolescent Studies 394. Supervised field experience in agencies, institutions and organizations serving children and families. Minimum of four hours per week for a total of 60 hours required for the semester. Credit/No Credit grade option only.

464 Practicum Seminar in Early Care/Education (2)

Prerequisites: Child/Adolescent Studies 300, 301, 325A, 394, 394L. Co-requisite: Child/Adolescent Studies 464L. Classroom analysis of field experience focusing on linkages between theory and practice and skills and techniques of early childhood development professionals.

464L Practicum in Early Care/Education (1)

Co-requisite: Child/Adolescent Studies 464. Supervised field experience in agencies, institutions, and organizations serving young children and families. Minimum of four hours per week for a total of 60 hours required for the semester. Credit/No Credit grade option only.

484 Practicum Seminar in Adolescent and Youth Services (2)

Prerequisites: Child/Adolescent Studies 300, 301, 325A, 394, 394L. Co-requisite: Child/Adolescent Studies 484L. Classroom analysis of field experience focusing on linkages between theory and practice and skills and techniques of adolescent development/youth services professionals.

484L Practicum in Adolescent and Youth Services (1)

Co-requisite: Child/Adolescent Studies 484. Supervised field experience in agencies, institutions, and organizations serving adolescents and families. Minimum of four hours per week for a total of 60 hours required for the semester. Credit/No Credit grade option only.

490T Senior Seminar in Child and Adolescent Development (3)

Prerequisites: senior standing, Child/Adolescent Studies 300, 301, 310, 325A, 325B. Systematic study of theory, methods, and findings concerning a specific developmental topic. Variable topics include Children and Adolescents at Risk, Cognition and Motivation, Controversial Issues in Development, Culture and Ethnicity in Development, Life Span Creativity, Life Span Perspective, Families and Development, Gender and Development, Gifted Intelligence, Working for Change, Legislative Advocacy, Moral Development, Self Concept, and Temperament and Development. May be repeated for credit under different topic.

494 Seminar in Child, Family, and Community Involvement (2)

Prerequisites: Child/Adolescent Studies 300, 301, 325A, 394, 394L. Co-requisite: Child/Adolescent Studies 494L. Classroom analysis of field experience focusing on linkages between theory and practice and skills and techniques of professionals working with parents and families in school and community settings.

494L Practicum in Child, Family, and Community Involvement (1)

Co-requisite: Child/Adolescent Studies 494. Supervised field experience in agencies, institutions, and organizations serving parents and families. Minimum of four hours per week for a total of 60 hours required for the semester. Credit/No Credit grade option only.

496 Student-to-Student Tutorial (1-3)

Prerequisites: a 3.0 or higher grade-point average and simultaneous enrollment in the course being tutored or previous enrollment in a similar course or its equivalent. Consult "University Curricula" section of this catalog for more complete course description. May be repeated for a maximum of 6 total units of credit. Only 3 units may be taken in a single semester.

499 Independent Study (1-3)

Individual research project, either library or field, under the direction of a Child and Adolescent Studies faculty member. May be repeated for a maximum of six total units of credit. Only three units may be taken in a single semester.

DEPARTMENT CHAIR
Wendell C. Crow

DEPARTMENT OFFICE
College Park 400

DAILY TITAN NEWSROOM
College Park 670

DAILY TITAN BUSINESS MANAGER
College Park 660

DEPARTMENT WEBSITE
http://communications.fullerton.edu

PROGRAMS OFFERED

Bachelor of Arts in Communications

Concentrations:

- Advertising
- Entertainment Studies
- Journalism
- Photocommunications
- Public Relations

Minors

- Advertising
- Journalism

Master of Arts in Communications

FACULTY

Jeff Brody, Pamela Caldwell, Thomas Clanin, Wendell Crow, David DeVries, Olan Farnall, Tony Fellow, Dennis Gaschen, Carolyn Johnson, Kuen-Hee Ju-Pak, Cynthia King, Paul Lester, Gail Love, Joseph Massey, Coral Ohl, Rick Pullen, Tony Rimmer, Shay Sayre, Nancy Snow, Andi Stein, Edgar Trotter, Hazel Warlaumont, Diane Witmer, Fred Zandpour

INTRODUCTION

Effective ethical communications are essential for the well being of a democratic society. Thus, there is a need for persons trained in the theory and practice of informing, instructing, and persuading through communications media. The educational goals of the programs leading to the Bachelor of Arts in Communications are to:

- Ensure that all majors are exposed to a broad liberal education;
- Provide majors with a clear understanding and a global perspective of the role of communications media in society; and
- Prepare majors desiring communications-related careers in the mass media, business, government and education by educating them in depth in one of the specialized concentrataions within the department.

ADVISERS

Undergraduate: All faculty serve as undergraduate advisers. Students may find their assigned concentration adviser in the Communications Department Office, College Park 400.

Graduate: Shay Sayre, College Park 400 or College Park 650-29. Additional advising services are available in the College of Communications Advising Center, CP-425.

BACHELOR OF ARTS IN COMMUNICATIONS

A communications major is required to take 12 units of core requirements in addition to 24 units in a chosen concentration. The department offers five concentrations: advertising, entertainment, journalism (print and broadcast), photocommunications, and public relations. The major totals 36 units. All prerequisite courses must be completed with a grade of C or better.

Collateral requirements: Twelve units of upper-division course work in other departments approved by the student's concentration adviser are also required. Collateral courses are listed on advising materials available in College Park 400.

Every major must take a minimum of 80 units outside Communications, out of the 120 units required for graduation. Of this 80 units, 65 must be in the traditional liberal arts, humanities and sciences. Students should consult their concentration adviser and the College of Communications Advisement Center early in their course work to be sure they meet these requirements.

Grade-Point Average Requirements

Three grade-point averages, each 2.0 or higher, are required for graduation:

A. An average based on all units attempted, including those attempted at other institutions.

B. An average based on all units attempted at CSUF.

C. An average based on all units attempted in the major.

Communications Core

The communications core provides background and perspective appropriate to all the departmental concentrations and an understanding of the role of communicators and their contributions to the development of high standards of professionalism.

Nine units of required course work:

Communications 233 Mass Communications in Modern Society (3)

Communications 407 Communications Law (3)

Communications 425 History and Philosophy of American Mass Communication (3)

Plus three units selected from:

Communications 300 Visual Communication (3)

Communications 333 Mass Media Effects (3)

Communications 410 Principles of Communications Research (3)

Communications 422 Communications Technologies (3)

Communications 426 Global Media Systems (3)

Communications 480 Persuasive Communications (3)

Minor or Collateral Requirement

All Communications majors must complete EITHER a minor (double major also counts) OR 12 collateral units (4 classes) of upper-division (UD) coursework outside of Communications. For minors or double major requirements, consult the "Academic Programs" section of this catalog. For collaterals, consult a concentration checklist for a list of approved courses. The following classes are approved for ALL concentrations: Afro 335, American Studies 300, American Studies 301, Comparative Religions 400, Philosophy 312, Political Science 300, Political Science 448, Psychology 351, Radio-TV-Film 300, Radio-TV-Film 350, Radio-TV-Film 480, Sociology 345, Speech Communication 320, Speech Communication 325, Speech Communication 333.

Communications Concentrations

Every communications major must select and complete 24 units of course work in a major concentration.

ADVERTISING CONCENTRATION

The objective of the advertising concentration is to prepare students for entry-level positions in one or more of the four basic advertising activities: creative (copy, layout design), media planning and buying, research, and management. Students are provided with knowledge and skills needed for work with an advertiser, advertising agency, the print and broadcast media, or support service industry.

Communications 350 Principles of Advertising (3)

Communications 351 Writing for the Advertising Industry (3)

Communications 352 Advertising Media (3)

Communications 353 Advertising Creative Strategy and Execution I (3)

Communications 451A,B or C Advertising Campaigns (3)

Communications 495 Mass Media Internship (3)

Plus three units from: Communications 317, 358, 361, 380, 410, 415T or 446.

Plus three units from: Communications 450, 452, 453, 454, 455 or 456.

ENTERTAINMENT STUDIES CONCENTRATION

Courses in this concentration introduce students to theory, trends and practices emerging in entertainment and tourism. The concentration is designed to prepare students for career opportunities in entertainment communication and management in a growing range of sectors including business, industries, agencies, and nonprofit organizations.

Communications 101 Writing for Mass Media (3)

Communications 346 Introduction to Entertainment Studies (3)

Communications 446 Entertainment and Society (3)

Communications 449 Capstone in Entertainment and Tourism Studies (3)

Communications 495 Mass Media Internship (3)

Plus one of the following: Communications 301, 334, 338, 351, or 362

Plus six units from: Communications 317, 350, 352, 361, 380, 410*, 422*, 426* or 447.

*Course may count either as a core elective or as a concentration elective, but not as both.

JOURNALISM CONCENTRATION

The principal objective of the journalism concentration is to provide the skills and practice necessary for careers in the print media. Specifically, the concentration objectives are: (1) to provide experience in writing various types of news stories, and to develop skills in reporting and news gathering techniques; (2) to develop critical acumen necessary to check news stories for accuracy and correctness; (3) to develop skills in graphics or photography that complement the journalistic writing skills; (4) to provide actual on-the-job experience by working on the campus newspaper and through an internship, and (5) to add breadth and depth to the professional's specialized skills through collateral courses.

The concentration includes three emphases: print, broadcast journalism and visual journalism.

Journalism Concentration Core:

Communications 101 Writing for the Mass Media (3)

Communications 203 Introduction to Visual Journalism Production (3)

Communications 338 News Media Production (3)

Communications 495 Mass Media Internship (3)

Print Journalism Emphasis

Communications 201 Reporting for the Mass Media (3)

Communications 332 Editing and Design (3)

Plus six units from: Communications 334, 335, 380, 434, 435, 436, 437, or 438T.

Broadcast Journalism Emphasis

Communications 202 Writing Broadcast News (3)

Communications 372 TV News Production (3)

Plus six units from: Communications 335, 371, 380, 435, 436, 438T.

Visual Journalism Emphasis

Communications 319 Photojournalism

Communications 409 Advanced Photojournalism

Plus six units from: Communications 332, 380, 436, 438T.

PHOTOCOMMUNICATIONS CONCENTRATION

The photocommunications concentration provides a comprehensive study of the aesthetics, theories, and practices of contemporary photography for professional careers in magazine and newspaper photojournalism, and advertising/commercial photography.

Communications 101 Writing for the Mass Media (3)

Communications 217 Introduction to Photography (3)

Communications 319 Photojournalism (3)

Communications 321 Advanced Color Photography (3)

Communications 495 Mass Media Internship (3)

Plus six units selected from:

Communications 326, 338, 340, 358, 380, or 409.

Plus one of the following:

Communications 301, 334 or 362.

PUBLIC RELATIONS CONCENTRATION

This concentration provides preparation in both theory and practice of two-way communication and management counsel for prospective professional public relations careers in business, industry, agency, government, and nonprofit sectors of society.

Communications 101 Writing for Mass Media (3)

Communications 361 Principles of Public Relations (3)

Communications 362 Public Relations Writing (3)

Communications 464 Public Relations Management (3)

Communications 495 Mass Media Internship (3)

Plus one writing course from:

Communications 301, 334, or 338.

Plus six units selected from:

Communications 317, 346, 350, 358, 363, 380, 410, 446, 467, 468 or 497.

WRITING REQUIREMENTS

All communications majors must satisfy both departmental and university writing requirements. For the department Writing Requirement, each concentration requires one or more writing courses. Consult an adviser or concentration checklist.

University Writing Requirement: The course work portion of the university's upper-division baccalaureate writing requirement for communications majors may be met by satisfactory completion of any one of Communications 301, 334, 335, 338, 351, 362, 371, and 435. Students must earn a C or better in the course which is used to fulfill the university's upper-division writing requirement.

INTERNSHIP REQUIREMENTS

The Department of Communications has always recognized the beneficial attributes of an internship. Students intern at sites in Orange and Los Angeles Counties, as well as at national and international sites. Examples of internship sites include newspapers, magazines, television and radio stations, public relations and advertising agencies, health-related institutions, nonprofit organizations, film production companies, publishers, education offices, high-tech industries and cities and businesses with communications needs.

Students can view course syllabus on the website at httpS://commsec.fullerton.edu/internship for a full understanding of the internship program. Applications are approved by the Communications Faculty Internship Coordinator (located at College Park 460-24) through the online site before a student registers with Titan. Deadlines for applications are March 15 (summer); May 15 (fall); October 15 (spring). Internship coursework must be completed within the term it is taken. Incompletes are discouraged. Students are encouraged to seek advice from the Communications Faculty Internship Coordinator (located at College Park 460-24) early in their academic career to gain the highest level of professional growth from their internship experience.

Students must meet the following prerequisites:

- Communications major
- Senior standing 2.25 GPA overall and in major
- Specific prerequisites for each area of concentration – which are NOT TO BE TAKEN CONCURRENTLY WITH THE INTERNSHIP. They include:

Advertising

Required: Communications 350, 351, 352, and 353.

Recommended: Communications 358.

Entertainment Studies

Required: Communications 346, 446.

Journalism

Required: Communications 203 and 338.

Recommended: Communications 334 and 335.

Photocommunications

Required: Communications 217, 319, and 321.

Recommended: Communications 326.

Public Relations

Required: Communications 361 and 362.

Recommended: Communications 358, 363, and 464.

Students with the equivalent of one year or full-time employment in the area of their concentration may petition out of the Internship by taking a different 400 level class approved by their faculty adviser. International students must obtain approval of the International Education and Exchange Office.

Students who do not meet the 2.25 GPA may be asked to petition out of the Communications 495 class and take a different 400 level class approved by their faculty adviser.

Applications and information can be obtained at the Department of Communications Internship Office in College Park 460-24.

MINOR IN ADVERTISING

The minor in Advertising requires 21 units as follows:

Lower-Division (3 units)

Communications 233 Mass Communications in Modern Society (3)

Advertising courses (12 units)

Communications 350A,B or C Principles of Advertising (3)

Communications 352A,B or C Advertising Media (3)

Communications 353A,B or C Creative Strategy and Execution (3)

Communications 451A,B or C National Advertising Campaigns (3)

Electives (6 units)

Two adviser-approved courses from Communications 380, 407, 415T, 425, 450, 452, 453, 454, 455, 456 or 480.

MINOR IN JOURNALISM

The Minor in Journalism requires 21 units. Required Journalism courses for a Minor in Journalism, unlike the Minor in Advertising, must be taken in sequence. Each course builds upon the other. The three required journalism courses provide a core of information for beginning journalism students. Students can then specialize in print, broadcast or visual journalism. A stint on the Daily Titan, Communications 338 News Media Production, takes the place of an internship. However, students who will plan to purse a career in professional print journalism are encouraged - but not required - to obtain an internship before applying for a job.

Communications Core Requirements (6 units)

Communications 233 Mass Media in Modern Society (3)

Plus three units selected from: Communications 310, 407, or 425 (3)

Journalism Concentration Requirements (9 units)

Communications 101 Writing for the Mass Media (3)

Communications 203 Introduction to Visual Journalism Production (3)

Communications 338 News Media Production (3)

Electives (6 units)

Choose six units from one of the following specializations:

Print Journalism Track

Communications 201 Reporting for the Mass Media (3)

Plus three units selected from: Communications 332, 334, 335, 380, 434, 435, 436, 437, or 438T.

Broadcast Journalism Track

Communications 202 Writing Broadcast News (3)

Plus three units selected from: Communications 335, 371, 372, 380, 435, 436, or 438T.

Visual Journalism Track

Communications 319 Photojournalism (3)

Plus three units selected from: Communications 300, 332, 380, or 409.

MASTER OF ARTS IN COMMUNICATIONS

The degree is designed to provide advanced study in communications theory and research by integrating courses from all of the department's areas of study: advertising, journalism, public relations and entertainment.

The program prepares the graduate to apply advanced communications concepts, research and development skills, and relevant theories of communications media for a wide variety of purposes. These studies serve those whose careers involve the use of mediated messages to inform, instruct, and persuade as well as those seeking doctoral degrees. Coursework is highly applicable to a wide range of careers in business, industry, government, education, mass media, and entertainment.

Students completing the Master of Arts in Communications are eligible for journalism and communications teaching positions in community colleges.

Admission to Graduate Standing: Conditionally Classified

Normally, an applicant must meet grade-point average requirements of 3.0 in the undergraduate major and 2.75 in the last 60 semester units of undergraduate course work, meet the university requirements, and satisfactorily complete the Graduate Record Examination General Test prior to admission. Students must also submit three letters of recommendation and an essay (approximately 1000 words) outlining reasons for pursuing the master's degree. Consult the department graduate program adviser or the department Web site for details regarding additional admission requirements.

Application Deadlines

Applications need to be postmarked no later than March 1st for the fall semester and October 1st for the spring semester. However, deadlines may be changed based upon enrollment projections. Check the university graduate studies website for current information http://www.fullerton.edu/graduate/

Graduate Standing: Classified

A student admitted in conditionally classified standing may be granted classified standing upon the development of an approved study plan and satisfactory completion of prerequisite course work. Satisfactory coursework or its equivalent in the following may be taken concurrently with degree requirements if not completed prior to classification:

(a) communications writing (Communications 201, 301, 351, 362)

(b) an introductory course in communications (Communications 233, 332, 350, 361)

(c) Communications 410 Principles of Communication Research

Study Plan

The student is required to complete 30 units of approved studies with a minimum grade-point average of 3.0 including 21 units in 500-level communications courses. Six of the 21 units of 500-level courses may be a thesis, three units may be a project. The remaining units may be comprised of 400-level courses appropriate to the student's area of interest.

The candidate must develop a program of study in consultation with the graduate adviser of the Department of Communications. The candidate must plan the thesis or project topic with a committee. The committee includes at least two faculty members from the Department of Communications.

Study plan requirements include the following:

Core Courses (9 units)

Communications 500 Theory and Literature of Communications (3)

Communications 507 Communications Research Design and Analysis (3)

Communications 508 Humanistic Research in Communications (3)

OR Communications 509 Social Science Research in Communications (3)

400-500 Level Courses (21 units)

In consultation with the graduate adviser, students design a program of study that is tailored to their educational and career goals and integrates courses in advertising, journalism, pubic relations, and entertainment. Maximum 9 units of 400-level courses allowed.

Project/Thesis/Exam (0-6 units)

Communications 597 Project (3)

OR Communications 598 Thesis (6)

OR Comprehensive Exam

For further information and advisement, please consult the graduate program adviser or the department website.

COMMUNICATIONS COURSES

Courses are designated as COMM in the class schedule.

101 Writing for Mass Media (3)

Prerequisites: English 101 or equivalent with a grade of C or better; typing ability. Principles and practices of writing for major types of mass communications media. Content, organization, conciseness and clarity (2 hours lecture, 2 hours laboratory).

201 Reporting for Mass Media (3)

Prerequisite: Communications 101. Development of expertise in the use of news reporting techniques combined with development of ability to compose complex journalistic writing forms for possible publication. Students will be introduced to computer-assisted reporting. They will also write stories for the *Daily Titan*.

202 Writing Broadcast News (3)

Prerequisites: English 101 or equivalent with a grade of C or better; Communications 101 or equivalent; typing ability. Intensive journalistic writing and reporting for radio and television. Emphasis on writing assignments for both audio and video tape media. Lecture/discussion of issues and responsibilities facing broadcast journalists.

203 Introduction to Visual Journalism Production (3)

Photojournalism assignments (news, sports and features) will be completed with still and video cameras for print and World Wide Web presentations. Camera operation, shooting techniques, photo software, cut-line writing, video and audio production and editing, and Web homepage production.

217 Introduction to Photography (3)

Cameras, accessories, materials, exposure, image processing, printing, finishing, composition, filters, flash, studio techniques, and special subject treatments and applications. (2 hours lecture, 2 hours activity)

233 Mass Communication in Modern Society (3)

Prerequisite: completion of General Education Category III.C.1. Newspapers, magazines, films, radio and television; their significance as social instruments and economic entities in modern society. (CAN JOUR 4)

300 Visual Communication (3)

Prerequisite: completion of General Education Categories III.B.1 or III.B.2. A social and cultural analysis of the meaning, production and consumption of visual information in a modern media society. Still, moving, television, graphic design, cartoon, and computer images will be analyzed in terms of technical, commercial, and cultural considerations.

301 Writing for Broadcasting and Film (3)

Prerequisites: English 101 or equivalent with a grade of C or better; typing ability. Theory and principles of writing in the broadcast and film media.

310 Mass Media Ethics for Communications Professionnals (3)

Prerequisite: Junior standing. The study of moral and professional conduct within various communications contexts. Examines cases involved with advertising, broadcast journalism, film, photojournalism, print journalism, public relations, television and the World Wide Web.

317 Multimedia Production (3)

Prerequisite: Completion of General Education Category III.B.1 or III.B.2. A convergence in film/digital photography, communication design, streaming media, and web-page production for creative visual problem solving. Students apply new media techniques to real world problems through service learning or client-based projects.

319 Photojournalism (3)

Prerequisite: Communications 203 or 217. Photography for publication in print media. News, advertising, feature, sports, lifestyle, photo essay and documentary applications. (2 hours lecture, 3 hours laboratory)

321 Advanced Color Photography (3)

Prerequisites: junior standing and Communications 319 or consent of instructor. Positive and negative color film processing, sensitometry, and color printing. Creative and effective use of color in publications photography. (2 hours lecture, 3 hours laboratory)

326 Communications Photography (3)

Prerequisites: junior standing and Communications 321, or consent of instructor. Photographs and photographic communications produced with the large format camera for the mass media, business, education, government, industry and science. (2 hours lecture, 3 hours laboratory)

332 Editing and Design (3)

Communications 201 or consent of instructor. Principles and practice of newspaper editing: copy improvement, headline writing, news photos and cutlines, wire services, typography, copy schedules and control, page design and layout, law and ethics. (2 hours lecture, 3 hours laboratory)

333 Mass Media Effects (3)

Prerequisite: completion of General Education Category III.C.1. The course is intended to help students discover the role mass media communications play in all human activity with heavy emphasis on the effects of mass media on the political, social, and economic fabric of America.

334 Feature Article Writing (3)

Prerequisites: English 101 or equivalent with a grade of C or better; and Communications 101 or equivalent. Nonfiction writing for newspapers and magazines; sources, methods and markets.

335 Public Affairs Reporting (3)

Prerequisites: English 101 or equivalent with a grade of C or better; Communications 101 and either 201or 202, or consent of instructor; and junior standing. Communications 407 recommended. Reporting public interest news such as courts, education, finance, government, police and urban problems.

338 News Media Production (3)

Communications 201, 202 or consent of instructor. Members of the class constitute the editorial staff of the university newspaper and receive training in print, on-line and magazine-style journalism. Meets four hours per week for critiques in news reporting, writing, editing and makeup, followed by production. May be repeated for a maximum of six units of credit. (More than 9 hours laboratory)

340 Photography in Advertising and Public Relations (3)

Prerequisites: junior standing and Communications 326 or consent of instructor. Advertising and public relations photography. Materials and techniques for producing photographs with visual impact suitable for photo reproduction. Students will prepare a portfolio of photographs. (2 hours lecture, 3 hours activity)

346 Introduction to Entertainment and Tourism Studies (3)

Introduces students to the entertainment industry. Applies entertainment and persuasion theory. Offers learning about career opportunities in entertainment-related fields. Explores the tasks, skill sets, demands and rewards associated with different entertainment professions. (Same as Theatre 346 and Business Administration 346)

350 Principles of Advertising (3)

This course explores the functions, strategies, ethics, technology, and media relevant to the advertising industry, as well as concepts in international, intercultural and integrated marketing communication.

351 Writing for the Advertising Industry (3)

Prerequisite: English 101. This course develops written communications and critical thinking skills essential for success in all advertising related careers. Students learn to compose persuasive letters, reports, proposals and news releases. Emphasis is placed on grammar and language skills. Students must achieve a C or better to continue taking advertising courses.

352 Advertising Media (3)

Prerequisites: Communications 350 and junior standing. Planning, execution and control of advertising media programs. Basic data and characteristics of the media. Buying and selling process, techniques, and methods in media planning process. Audience measurement and media analysis.

353 Advertising Creative Strategy and Execution I (3)

Prerequisites: English 101, Communications 350, and junior standing. Writing of copy and layout of advertisements, based on study of sales appeals, attention factors and illustrations. (2 hours lecture, 2 hours activity)

358 Graphics Communications (3)

Prerequisite: junior standing. Printing processes, publication formats, copy preparation, copy-fitting techniques, layout principles, paper selection and distribution methods. (2 hours lecture, 2 hours activity)

361 Principles of Public Relations (3)

Prerequisite: junior standing. The social, behavioral, psychological, ethical, economic and political foundations of public relations, and the theories of public relations as a communications discipline.

362 Public Relations Writing (3)

Prerequisites: English 101 or equivalent with a grade of C or better; Communications 101 or consent of instructor; typing ability; junior standing. Communications analysis, writing for business, industry and nonprofit organizations. Creating effective forms of public relations communication.

363 Desktop Publishing (3)

Prerequisite: completion of any one of Communications upper-division writing courses. Editing functions and techniques involved in creative development of publications for business, industry and nonprofit organizations and institutions. Magazines, newspapers, newsletters and brochures.

371 Radio News Production (3)

Prerequisites: Communications 202 and 203. Writing, producing, planning, taping, editing and evaluating radio news.

372 TV News Production (3)

Prerequisites: Communications 202 and 203. Writing, production and evaluation of television news. Discussion of TV reporting techniques and problems. Students cover events and produce TV news in lab.

380 Web Design and Production (3)

Prerequisite: junior standing. Underlying design concepts and production techniques for creating World Wide Web multimedia presentations for educational lessons, commercial applications, and online publications.

407 Communications Law (3)

Prerequisites: Communications 233 and junior standing. The Anglo-American concept of freedom of speech and press; statutes and administrative regulations affecting freedom of information and publishing, advertising, and telecommunication. Libel and slander, rights in news and advertising, contempt, copyright, and invasion of privacy.

409 Advanced Photojournalism (3)

Prerequisite: Communications 319. Advanced press photography. Extensive use of cameras for photographic reporting; evaluation and preparation of pictures for publication. Field/laboratory experience in black and white and color. (2 hours lecture, 3 hours laboratory)

410 Principles of Communication Research (3)

Prerequisites: Communications 233 and junior standing. Research methods used to assess the effects of print, broadcast, and film communications on audience attitudes, opinions, knowledge, and behavior. Research design and data analysis in communications research.

415T Current Issues in Advertising (3)

Prerequisites: Communications 233, 350, or 361; permission of instructor. This course presents a variety of current advertising topics in all fields of communications. Professional problems, global issues, critical analysis and special skills are presented to supplement the curriculum, and to enhance the understanding of, and appreciation for, advertising concepts. Not available for graduate degree credit.

422 Communications Technologies (3)

Prerequisite: Communications 233. Issues surrounding communications technologies. Covered are recent developments in technology, impact of government, industry and economic factors, historical overview, and implications for social change. Exposure to technological developments. Applications to all areas of mass communications.

425 History and Philosophy of American Mass Communication (3)

Prerequisites: Communications 233 and junior standing. American mass communication; newspapers and periodicals through radio and television; ideological, political, social and economic aspects. Not available for graduate degree credit.

426 Global Media Systems (3)

Prerequisites: Communications 233 and junior standing. Major mass communication systems, both democratic and totalitarian, and the means by which news and propaganda are conveyed internationally.

434 Magazine Industry and Production (3)

Prerequisite: Communications 338 or consent of instructor. Students produce Tusk, the magazine of Cal State Fullerton. They learn the dynamics of magazine production and the magazine industry.

435 Opinion Writing (3)

Prerequisites: English 101 or equivalent with a grade of "C" or better, upper-division writing course and junior standing. Techniques of editorial writing and opinion writing, including personal essays, for print, broadcast and the Internet. The role of punditry in television news and on TV and radio talks shows, and how this might affect public perceptions of the media.

436 Reporting on the Entertainment Industry (3)

Prerequisite: Communications 201, 202, or consent of instructor. Development of expertise in reporting and writing on the entertainment industry. An understanding of the economics, business models, legal aspects, and culture of the industry.

437 Advanced Magazine Writing (3)

Prerequisites: Communications 201 and 338. Designed to give students practical experience in reporting and writing long, in-depth feature articles for professional magazines. Will cover the peculiarities of researching writing for specialized audiences, and the business of free-lancing. Includes techniques for improving clarity, cohesion, emphasis and concision.

438T Specialized Reporting (3)

Prerequisite: Communications 201, 202 or consent of instructor. This varied topic course is designed to teach advanced reporting and writing skills in specialized areas. It will combine an awareness of techniques and resources with an abundance of writing models and field experiences.

446 Entertainment and Society (3)

Prerequisite: Communications 233, 316, or Business Administration 346 or Theatre 346. In-depth exploration of the role of entertainment in modern society. Examines audience uses, motivations and individual preferences for entertainment. Reviews theories and research regarding the form and function of entertainment and entertainment media.

447 Tourism and Travel (3)

Prerequisite: Communications 346, 350, or 361 or Management 339 or Marketing 351 or Theatre 200. This course examines the concepts, tools, and techniques necessary for understanding the tourism and travel industry and its promotional communications. Students explore the trends and issues of tourism and travel and the unique problems and opportunities of this field.

449 Capstone in Entertainment and Tourism Studies (3)

Prerequisite: Communications 346 or equivalent. Prepares students for careers in the entertainment industry by combining theory with applied principles and analytical skills in examining and developing case studies. Students plan and execute their own campaigns and projects. (Same as Theatre 449 and Business Administration 449)

450 Advertising and Brand Communication Management (3)

Prerequisites: Communications 352 and 353. Theory and techniques for planning, directing and evaluating advertising and brand communication programs with emphasis on media-message strategies. Managerial approach with case studies to the solution of brand communications problems.

451A Advertising Campaigns —AAF Competition (3) (Formerly 451)

Prerequisites: Communications 352, 353, and consent of instructor. Advertising campaigns, including applied research, writing and utilization of print and electronic mass media. Design of complete campaigns from idea to prediction readiness.

451B Advertising Campaigns —Local Focus (3) (Formerly 451)

Prerequisites: Communications 350, 352, 353. Advertising campaigns, including applied research, writing and utilization of print and electronic mass media. Design of complete campaigns from idea to prediction readiness.

451C Advertising Campaigns —TitanCom Agency (3) (Formerly 451)

Prerequisites for Advertising majors - Communications 350, 352, 353; for Public Relations majors - Communications 361, 362. Advertising campaigns, including applied research, writing and utilization of print and electronic mass media. Design of complete campaigns from idea to prediction readiness.

452 Advanced Media Strategy and Tactics (3)

Prerequisite: Communications 352 or consent of instructor. This course is designed to offer students further education in advertising media. It integrates theories from related disciplines, such as communications, marketing, and psychology, to illustrate better ways to use media as a competitive tool in business.

453 Advertising Creative Strategy and Execution II (3)

Prerequisite: Communications 353. Advanced advertising projects involving application and execution of creative advertising strategies for mass media, including theory and practice of writing copy, and preparing comprehensive layouts and completed scripts. Group discussions, labs, and individual conferences.

454 Advertising Media Sales (3)

Prerequisites: Communications 350 and 353; or Communications 332 and either 217 or 358; or Marketing 351 and any 300-level graphics, layout or design course. Prepares students for careers in advertising media sales, including radio, television, newspaper, magazine, new media and the internet. Personal sales techniques and media sales strategies are presented for each medium.

455 Internet Advertising & Promotional Communications (3)

Prerequisites: Communications 350, 352 and 353 or consent of instructor. This course examines Internet advertising and marketing issues and ideas. Students learn to evaluate, develop, and execute Internet-based advertising and promotional campaigns.

456 Advertising Account Planning (3)

Prerequisites: Communications 353 anad 410. Students learn to apply principles of research, consumer behavior and creative concept development to advertising and brand communication campaigns. Field study and case application facilitate the process of the planner's consumer advocacy function.

464 Public Relations Management (3)

Prerequisites: Communications 361, 362 and junior standing. Analysis of systems and strategies for planning public relations campaigns and solving/preventing problems. Individual, team case studies, in corporate development of proposals; actual use of tools in addition to role playing presentations to management.

467 Public Relations Agency Seminar (3)

Prerequisites: Communications 101, 361 and junior standing. Seminar focuses on psychology and functions of client counseling, proposal writing, new business development, agency management, servicing clients, evaluation of methods, reporting results, and legal and ethical concerns.

468 Corporate and Nonprofit Public Relations (3)

Prerequisites: Communications 101 and 361. This seminar focuses on the public relations strategies and tactics used in today's increasingly sophisticated and maturing corporate and nonprofit marketplaces. This advanced course, which relies heavily on professional guest speakers and in-class simulations/exercises, encompasses a host of specific topics, such as fund raising, corporate and social responsibility, media relations, and technology and ethical issues.

477 Research Methods in Primatology (3)

Prerequisites: Communications 346, 350 and 361; Management 339, Marketing 351, or Theatre 200. This course examines the concepts, tools, and techniques necessary for understanding the tourism and travel industry and its promotional communications. Students explore the trends and issues of tourism and travel and the unique problems and opportunities of this field.

480 Persuasive Communications (3)

Prerequisites: Communications 233 and junior standing. Persuasive communications applied to mass communication. The communicator, audience, message content and structure, and social context in influencing attitudes, beliefs and opinions.

495 Mass Media Internship (3)

Prerequisites: senior standing, communications major, 2.25 GPA overall and in major, and specific prerequisites for each concentration. Visit the website at: httpS://commsec.fullerton.edu/internship for further details. Supervised internship according to concentration. Selected from a wide variety of communications media, industries, agencies, and nonprofit organizations. Applications must be made through the department coordinator one semester prior to entering the program. See the department section titled "Internship Requirements" in this catalog or the internship website. (Cedit/No Credit Only)

496 Student-to-Student Tutorial (1-3)

Prerequisites: consent of instructor and previous superior performance in a similar or equivalent course. Under faculty supervision, student provides tutorial assistance in a communications course. May involve small group demonstrations and discussions, individual tutoring and evaluation of student performance as appropriate. May be repeated to a maximum of four units either separately or in combination with Communications 499.

497 Public Communications Practices (3)

Prerequisite: Communications 346, 350, 361 or consent of instructor. Public communications theory and practice. Ethics, responsibilities and role of public communications in contemporary society. Principles applied to event planning, including Communications Week (spring only) or other activities.

499 Independent Study (1-3)

Prerequisite: consent of department chair. Individually supervised mass media projects and research on campus and in the community. May involve newspaper and magazine publishers, radio and television stations and public relations agencies. May be repeated up to a maximum of four units either separately or in combination with Communications 496.

500 Theory and Literature of Communications (3)

Prerequisite: conditional classified status. Theories and research on communication processes and effects; source, media, message, audience and content variables. Types, sources and uses of communication literature. Graduate seminar.

507 Communications Research Design and Analysis (3)

Prerequisite or co-requisite: Communications 500. This course develops a working knowledge of data collection and analysis techniques in both quantitative and qualitative research methods. The material and presentation are developed for practical application to all professional fields of communication.

508 Humanistic Research in Communications (3)

Prerequisites: Communications 410, 507 (may be taken concurrently) and classified status. Humanistic methods of study in communications: historical research and critical analysis applied to problems, issues and creative works in communication. Graduate seminar.

509 Social Science Research in Communications (3)

Prerequisites: Communications 410, 507 (may be taken concurrently) and classified status. Social-scientific research design and analysis and the study of communication processes and effects. Graduate seminar.

515T Professional Problems in Specialized Fields (3)

Prerequisite: Communications 500. Selected topics and issues in the field of mass communications. Subjects vary each semester. May be repeated with a different topic.

517 Ethical Problems of the Mass Media (3)

Prerequisite: Communications 500. This course will study criticisms of specific functions of the mass media and public relations. The course will consist of three sections: the history of criticism; problem areas of the media; and practitioner response to criticism.

518 Public Relations Theory (3)

Prerequisite: Communications 500. This graduate seminar explores cutting edge communication and organizational theories and vital emerging issues influencing the field of public relations. Special focus will be on contemporary public relations models and practitioner roles.

519 Communications and Governance in America (3)

Prerequisite: Communications 500 or consent of instructor. The course will study relationships between systems of communications, particularly new communication technologies, and governmental institutions and processes within the American setting. It will explore how technological change relates to patterns of decision-making, management, and the content and flow of information among public officials.

520A,B,C Communications Practicum (3,3,3)

Prerequisites: Communications 500 and six units of study-plan courses in area of specialization; Communications 518 is an additional prerequisite for C. Under supervision of a faculty member, students plan, design, conduct and evaluate a team project in their field of specialization: A - News-Editorial, B - TV/Film, C - Public Relations.

525 Advanced Communications Management (3)

Prerequisite: Communications 500. The course is designed to provide the student with an up-to-date assessment of general management and communications management techniques, and to help equip the student for management positions in advertising, journalism, public relations and broadcasting.

527 Politics and Mass Media (3) (Formerly 515T)

Prerequisite: Communications 500. Study of the nature of the relationship between the mass media and politics. Particular attention to the role and impact of the mass media in political election campaigns and policy making.

530 Communications Technologies (3) (Formerly 515T)

Prerequisite: Communications 500. Seminar in emerging communications technologies which are transforming professional practices, associated with various communications industries. Course deals with recent technological developments, corporate and government policies affecting their use and social consequences of current and projected applications.

534 American Media History (3) (Formerly 515T)

Prerequisite: Communications 508 or consent of instructor. This seminar will focus on the history of the American Mass Media from McCarthy to the present. It is a period, which marked the birth of television and the maturation of investigative journalism in shaping American attitudes about government and society.

536 International Communications (3) (Formerly 515T)

Prerequisite: Communications 500. Comparative examination of communications policies and practices in different national settings. The course provides future practitioners with an understanding of cross-national variations in communication policies and how they shape communication industries and practices.

541 Film Criticism (3)

Prerequisite: Communications 500. This graduate foundation course in screenwriting examines methods of evaluating and critiquing motion picture screenplays and films for a variety of Hollywood genres.

550 Advertising in Modern Society (3)

Prerequisite: Communications 500. Assessing the impact of advertising on society, the culture and economy. Philosophical rather than technical examinations of critical issues and problems such as economic and social effects of advertising, effects of value and life styles, ethics and regulation.

595 Graduate Mass Media Internship (3)

Prerequisites: Communications 500 and Communications 508 or 509, and consent of graduate adviser. Supervised practical work experience with media outlets, advertising and promotion agencies, public relations firms, film companies, etc. Involves cooperative efforts of both the departmental faculty and employers. Exposure to current and innovative techniques in research, management and creative activities while offering practical experience.

597 Project (3)

Prerequisite: Consent of graduate coordinator. Completion of creative project in a sequence beyond regularly offered course work.

598 Thesis (3 or 6)

Prerequisite: Consent of graduate coordinator. Completion of a thesis in a sequence beyond regularly offered course work

599 Independent Graduate Research (1-3)

Prerequisite: consent of graduate coordinator. Individually supervised mass media projects or research for graduate students. May be repeated.

DEPARTMENT CHAIR

Benjamin Hubbard

DEPARTMENT OFFICE

Education Classroom 622

DEPARTMENT WEBSITE

http://hss.fullerton.edu/comparative

PROGRAMS OFFERED

Bachelor of Arts in Religious Studies

Minor in Religious Studies

Minor in Christian Studies

Minor in Jewish Studies

FACULTY

Benjamin Hubbard, Paul Levesque, James Santucci, Jeanette Reedy Solano, Bradley Starr

ADVISER

All programs: James Santucci

INTRODUCTION

Comparative Religion examines the spiritual quest of humankind, especially as it has manifested itself in the world's living religions. These include Hinduism, Buddhism, Sikhism, Judaism, Christianity, Islam, and other less familiar traditions. No other academic field looks at the origins, sacred writings, rituals, beliefs and world views of the various religions for their own sake rather than as an aspect of another field of study.

Within a public university, religion must be approached with academic objectivity and without favoritism for any one tradition. Yet, religion must also be studied with sensitivity and empathy for the millions of believers whose lives are shaped by their faith. Comparative Religion is also an interdisciplinary field which draws on the work of social scientists, historians, philosophers, and literary scholars in attempting to understand the religious quest. Hence, studying religious traditions develops habits of mind that are very important for life in our multicultural society. Furthermore, a familiarity with the world's religions is necessary for an understanding of church-state issues in America and of geo-political conflicts in South Asia, the Middle East, and elsewhere.

The Bachelor of Arts in Religious Studies is designed for those who (1) want a humanities undergraduate background focusing on religion as a preparation for further study in such fields as education, law, social work, counseling and government service; (2) wish to pursue graduate studies in religion with the aim of teaching and/or doing research in the subject; (3) are considering a career in various religious ministries or in religious education.

Because the major consists of 36 units of course work (less than some other fields), it may be possible to add a second major in, for example, Communications, History, Human Services or Philosophy. Such double majors may strengthen a student's job preparation or background for graduate studies.

Minors in religion are offered in three areas depending on a student's particular interest: Religious Studies (comparative emphasis), Christian Studies (an emphasis on Christianity in its many forms), and Jewish Studies (an emphasis on the Judaic tradition).

Awards in Comparative Religion

Two graduating seniors are recognized each year with the James O'Shea/Joseph Kalir Award for Outstanding Scholarship and the James Parkes/Morton Fierman Award for Student Achievement (for service to the department and university and/or for interfaith work within and outside the university). The Donald Gard Award is given annually to a non-graduating Religious Studies major for academic achievement. In addition, the Althea and Robert McLaren Award recognizes the student (majoring or minoring in religious studies) judged to have written the outstanding essay in a Comparative Religion class in a particular year.

International Learning Opportunities in Comparative Religion

The Religious Studies major within the Department of Comparative Religion requires the study of the world's religions, thereby necessitating an examination of religion in other cultural and national settings. This is particularly true of courses dealing with Asian religions such as Hinduism and Buddhism, and a predominantly Middle Eastern faith—Islam. Moreover, the Department encourages students to study abroad, for example at the Hebrew University of Jerusalem, many of whose courses will transfer into the Religious Studies major at Fullerton. See the department chair or undergraduate adviser if interested.

Graduate Study

The department works cooperatively with the Department of Religion in the Claremont Graduate School. Please contact the chair or undergraduate adviser about specific cooperative arrangements.

BACHELOR OF ARTS IN RELIGIOUS STUDIES

The Bachelor of Arts in Religious Studies requires a minimum of 120 units which includes courses for the major, General Education, all University requirements, and free electives. The religious studies major consists of 36 units. Courses in other schools and departments may be acceptable for the major upon consultation with the departmental adviser. Each course counted toward the major must be completed with a grade of C or higher.

Lower-Division Requirements (9 units)

Introduction to the Study of Religion (3 units)

Comparative Religion 105 Religion and the Quest for Meaning (3)

Comparative Religion 110 Religions of the World (3)

Introduction to Western Religious Traditions (3 units)

Comparative Religion 200 Introduction to Christianity (3)

Comparative Religion 201 Origins of the New Testament (3)

Comparative Religion 210 Introduction to Judaism (3)

Comparative Religion 250 The Religion of Islam (3)

Introduction to Non-Western Religious Traditions (3 units)

Comparative Religion 270T Introduction to the Asian Religions (3)

Comparative Religion 280 Introduction to Buddhism (3)

Upper-Division Requirements (27 units)

Core Requirements (6 units)

Comparative Religion 300 Methods of Studying Religion (3)

Comparative Religion 485T Major Religious Thinkers and Concepts (3)*

The Development of Western Religious Thought (6 units)

Comparative Religion 345A History and Development of Early Christian Thought (3)

Comparative Religion 345B History and Development of Modern Christian Thought (3)

Comparative Religion 346A History and Development of Jewish Thought: Biblical Origins to Maimonides (3)

Comparative Religion 346B History and Development of Jewish Thought: 1204 to the Present (3)

Comparative Religion 349A History and Development of Islamic Thought: The Beginning to 1258 (3)

Comparative Religion 349B History and Development of Islamic Thought: 1259 to Modern Times (3)

Comparative Religion 350T Major Christian Traditions (3)

History/Comparative Religion 405 History of the Jews (3)

History/Comparative Religion 406 The Holocaust (3)

History/Comparative Religion 417B Roman Empire (3)

History 420 The Byzantine Empire (3)

History/Comparative Religion 421A History of the Christian Church to 1025 (3)

History/Comparative Religion 421B History of the Christian Church from 1025 to the Present (3)

History/Comparative Religion 425B The Reformation (3)

History/Comparative Religion 466A Islamic Civilization: Arab Era (3)

History/Comparative Religion 466B Islamic Civilization: Imperial Age (3)

History/Comparative Religion 483 American Religious History (3)

The Development of Non-Western Religious Thought (6 units)

Comparative Religion 337 American Indian Religions and Philosophy (3)

Comparative Religion 347A Hindu Tradition to 400 B.C.E. (3)

Comparative Religion 347B Hindu Tradition from 400 B.C.E. (3)

Philosophy 350 Asian Philosophy (3)

Comparative Religion 354T Topics in Buddhism (3)

Comparative Religion 370 New Religious Movements in the U.S.A. (3)

History/Comparative Religion 465A History of India (3)

History/Comparative Religion 465B History of India (3)

The Experience of Religion (6 units)

Comparative Religion 305 Contemporary Practices of the World's Religions (3)

Comp Lit/Comparative Religion 312 The Bible as Literature (3)

Comparative Religion 335 Judaism, Christianity, and Islam Compared (3)

Comparative Religion 343 Religion and Current Ethical Issues (3)

Philosophy/Comparative Religion 348 Philosophy of Religion (3)

Comparative Religion 358 Comparative Mysticism (3)

Comparative Religion 376 Dimensions of Religious Experience (3)

Comparative Religion 380 The Religious Roots of Nonviolence (3)

Comparative Religion 400 Religion, the Media, and Contemporary Culture (3)

Sociology/Comparative Religion 458 Sociology of Religious Behavior (3)

Comparative Religion 481 Religion and Politics in the American Experience (3)

Textual Studies (3)

Comparative Religion 330T Hebrew Scriptural Studies (3)

Comparative Religion 331T New Testament Studies (3)

Comparative Religion 401T Studies in Religious Texts (3)

Writing Requirement

The course requirement of the university upper-division baccalaureate writing course is met through Comparative Religion 485T. It is highly recommended that students majoring in Religious Studies pursue the study of classical languages such as Arabic, Greek, Hebrew, Latin, and Sanskrit when such languages are offered.

*May be taken only after completion of 15 units in Comparative Religion, including Comparative Religion 105 or 110 and 300, and junior standing.

MINOR IN RELIGIOUS STUDIES

Students minoring in Religious Studies are required to take 21 units in Comparative Religion, distributed as follows:

Lower-Division Requirements (9 units)

Introduction to the Study of Religion (3 units)

Comparative Religion 105 Religion and the Quest for Meaning (3)

Comparative Religion 110 Religions of the World (3)

Introduction to Western Religious Traditions (3 units)

Comparative Religion 200 Introduction to Christianity (3)

Comparative Religion 201 Origins of the New Testament (3)

Comparative Religion 210 Introduction to Judaism (3)

Comparative Religion 250 The Religion of Islam (3)

Introduction to Non-western Religious Traditions (3 units)

Comparative Religion 270T Introduction to the Asian Religions (3)

Comparative Religion 280 Introduction to Buddhism (3)

Upper-Division (12 units)

Core Requirements (3 units)

Comparative Religion 300 Methods of Studying Religion (3)

Elective Courses (9 units)

Any nine units of upper-division courses in Comparative Religion. It is highly recommended that students minoring in Religious Studies pursue the study of classical languages such as Arabic, Greek, Hebrew, Latin, and Sanskrit when such courses are offered.

MINOR IN CHRISTIAN STUDIES

Students minoring in Christian Studies are required to take 21 units, distributed as follows:

Required Courses (12 units)

Comparative Religion 200 Introduction to Christianity (3)

Comparative Religion 300 Methods of Studying Religion (3)

Comparative Religion 345A History and Development of Early Christian Thought (3)

Comparative Religion 345B History and Development of Modern Christian Thought (3)

Elective Courses (9 units)

At least six units must be taken in courses cross-listed with other departments.

Comparative Religion 201 Origins of the New Testament (3)

Comp Lit/Comparative Religion 312 The Bible as Literature (3)

Afro 325 African-American Religion (3)

Comparative Religion 331T New Testament Studies (3)

Comparative Religion 335 Judaism, Christianity, and Islam Compared (3)

Comparative Religion 343 Religion and Current Ethical Issues (3)

Comparative Religion 350T Major Christian Traditions (3)

Comparative Religion 358 Comparative Mysticism (3)

Comparative Religion 376 Dimensions of Religious Experience (3)

Comparative Religion 380 The Religious Roots of Nonviolence (3)

Comparative Religion 400 Religion, the Media, and Contemporary Culture (3)

Comparative Religion 401T Studies in Religious Texts* (3)

History/Comparative Religion 417B Roman Empire (3)

History 420 The Byzantine Empire (3)

History/Comparative Religion 421A History of the Christian Church to 1025 (3)

History/Comparative Religion 421B History of the Christian Church from 1025 to the Present (3)

History/Comparative Religion 425B The Reformation (3)

Sociology/Comparative Religion 458 Sociology of Religious Behavior (3)

Comparative Religion 481 Religion and Politics in the American Experience (3)

History/Comparative Religion 483 American Religious History (3)

Comparative Religion 485T Major Religious Thinkers and Concepts (3)*

Comparative Religion 499 Independent Study (3)*

It is highly recommended that students minoring in Christian Studies pursue the study of classical languages such as Greek, Hebrew, and Latin when such courses are offered.

*When content pertains to the Christian tradition.

MINOR IN JEWISH STUDIES

Students minoring in Jewish Studies are required to take 21 units, distributed as follows:

Required Courses (12 units)

Comparative Religion 210 Introduction to Judaism (3)

Comparative Religion 346A History and Development of Jewish Thought: Biblical Origins to Maimonides (3)

Comparative Religion 346B History and Development of Jewish Thought: 1204 to the Present (3)

Elective Courses (9 units)

At least six units must be taken in courses cross-listed with other departments.

Comp Lit/Comparative Religion 312 The Bible as Literature (3)

Comparative Religion 330T Hebrew Scriptural Studies (3)

Comparative Religion 335 Judaism, Christianity, and Islam Compared (3)

Comparative Religion 343 Religion and Current Ethical Issues (3)

Comparative Religion 358 Comparative Mysticism (3)

Comparative Religion 376 Dimensions of Religious Experience (3)

Comparative Religion 380 The Religious Roots of Nonviolence (3)

Comparative Religion 400 Religion, the Media, and Contemporary Culture (3)

Comparative Religion 401T Studies in Religious Texts* (3)

History/Comparative Religion 405 History of the Jews (3)

History/Comparative Relition 406 The Holocaust (3)

Sociology/Comparative Religion 458 Sociology of Religious Behavior (3)

History 467 The Middle East in the 19th Century (3)

History 468 The Middle East in the 20th Century (3)

Comparative Religion 481 Religion and Politics in the American Experience (3)

Comparative Religion 485T Major Religious Thinkers and Concepts (3)*

Comparative Religion 499 Independent Study (1-3)*

*When content pertains to the Jewish tradition.

COMPARATIVE RELIGION COURSES

Courses are designated as CPRL in the class schedule.

105 Religion and the Quest for Meaning (3)

Inquiry into the nature of religious experience as the human pursuit of meaning and transcendence, exploring its central themes, phenomena, and questions; its principal types of figures and communities; and its major categories of sacred rituals, objects, seasons, and places.

110 Religions of the World (3)

An introduction to at least five religious world views from an historical and comparative perspective, with descriptive analysis of their belief system, moral code, and symbolic rituals: Judaism, Christianity, Islam, Hinduism, and Buddhism. (Same as Philosophy 110)

200 Introduction to Christianity (3)

The Christian scriptures and their background in the light of modern exegesis; the Synoptic Gospels, written creeds and liturgical formulae associated with the Orthodox, Roman and Protestant communions.

201 Origins of the New Testament (3)

The sources and content of the New Testament writings which reflect the life and beliefs of the Christians in the first century of the Common Era, including literary and historical criticism.

210 Introduction to Judaism (3)

The Jewish tradition—its scriptures, laws, customs, holidays and world view in their historical setting.

246A Basic Hatha Yoga (2)

(Same as Kinesiology 246A)

250 The Religion of Islam (3)

The religion of Islam, its background and main teachings: the rise of Islam; the caliphate; Islamic theology, teachings, mysticism and philosophy.

270T Introduction to the Asian Religions (3)

The main teachings of a major South Asian, Far Eastern, or "Oriental" religion per semester. Such religions as Jainism, Hinduism, Taoism, Shintoism, and Zoroastrianism will be discussed. May be repeated for credit with different subject matter.

280 Introduction to Buddhism (3)

Introduction to the origins and development of Buddhism. Included in the course will be a discussion of the major teachings found in all traditions of Buddhism, the three major traditions of Buddhism, and the position of Buddhism in the U.S.

300 Methods of Studying Religion (3)

Prerequisite: Comparative Religion 110 or consent of instructor. The academic study of religion to include the definition, functions and varieties of religion; the methods used to study it; and key figures who have shaped the development of this discipline.

301 Sanskrit (3)

(Same as Linguistics 301)

305 Contemporary Practices of the World's Religions (3)

Prerequisite: any one of the following: Anthro 100, History 110A, Comparative Religion 105, or Comparative Religion 110. A comparative study of how the beliefs, practices and moral codes of the world's major religions influence the way nations and individuals behave in the spheres of daily life, culture, ethics, business and politics.

312 The Bible as Literature (3)

(Same as Comp Lit 312)

325 African-American Religions and Spirituality (3)

(Same as Afro-Ethnic Studies 325)

330T Hebrew Scriptural Studies (3)

Specific areas of Hebrew Scriptures such as major and minor prophets, Psalms, values of wisdom writers, books of the Old Testament. May be repeated for credit with different subject content.

331T New Testament Studies (3)

Specific areas of the New Testament such as the Synoptic Gospels, the Pauline Corpus, the Johannine Corpus, etc. May be repeated for credit with different subject matter.

335 Judaism, Christianity and Islam Compared (3)

A comparative study of the three great monotheistic traditions, Judaism, Christianity, and Islam; their beliefs, practices, and structures.

337 American Indian Religions and Philosophy (3) (Formerly 437)

(Same as Afro-Ethnic Studies 337)

345A History and Development of Early Christian Thought (3)

Prerequisite: completion of the General Education category III.B.1 and III.B.2. A historical study of the diversity of Christian beliefs, movements, and key figures from New Testament times to the late Middle Ages, including such topics as important creeds and councils, spiritual movements, and central figures such as Augustine and Aquinas.

345B History and Development of Modern Christian Thought (3)

Prerequisite: completion of the General Education category III.B.1 and III.B.2. A historical study of the diversity of Christian beliefs, movements, and key figures from the late Middle Ages to the present, including such topics as the context and thinkers of the Reformation era, post-Reformation controversies, and recent debates and trends.

346A History and Development of Jewish Thought: Biblical Origins to Maimonides (3)

Jewish thought from biblical times to the death of Moses Maimonides (1204); Hebrew scriptures, Roman era, Talmud, and Spanish Jewry.

346B History and Development of Jewish Thought: 1204 to the Present (3)

Jewish thought from the death of Maimonides to the present; expulsions and persecutions, mysticism, emancipation, modern anti-Semitism, and Zionism.

347A Hindu Tradition to 400 B.C.E. (3)

Prerequisite: Comparative Religion 105, 110 or 270T or consent of instructor. Hindu thought in its earliest period. Subjects will include an overview of Vedic literature, especially its religious content and the major rituals of the early Veda; philosophical developments in the Upanisads or later Veda; and related sacred writings.

347B Hindu Tradition from 400 B.C.E. (3)

Prerequisite: Comparative Religion 105 or 110 or completion of General Education Category III.B.2. Hindu thought after the Vedic period. Subjects will include the beginnings of Hindu philosophies, classical Hindu practice, devotionalism, modern or neo-Hindu groups appearing in the nineteenth century, and the contributions of thinkers such as Ramakrishna and Gandhi.

348 Philosophy of Religion (3)

(Same as Philosophy 348)

349A History and Development of Islamic Thought: The Beginning to 1258 (3)

Prerequisite: Comparative Religion 105, 110 or 250 or equivalent. Islamic theology, law, culture, and spirituality up to the close of the classical period in 1258. Interpretation of the Qur'an, formation of Hadith literature, development of Islamic law, divisions within Islam, rise of mysticism, contributions to science and art.

349B History and Development of Islamic Thought: 1259 to Modern Times (3)

Prerequisite: Comparative Religion 105, 110 or 250 or equivalent. Islamic thought from the close of the classical period to the present, with emphasis on twentieth century developments. Emergence of modern Middle East, reform movements, Islamic response to nationalism and modernity, recent Islamic resurgence.

350T Major Christian Traditions (3)

Catholicism, Protestantism, Eastern Christianity, or Post-Reformation Communities; historical development and self-understanding, liturgy, creeds, moral norms, canon laws and outstanding figures. May be repeated for credit with different content.

354T Topics in Buddhism (3)

Prerequisite: Comparative Religion 105, 110 or 280. A historical survey of Buddhist doctrines, schools, and practices in a particular region or regions which are: South Asia, Tibet, China, Japan, Korea, and Southeast Asia. May be repeated for credit with different content. (Same as Philosophy 354T)

358 Comparative Mysticism (3)

Prerequisite: Comparative Religion 105, 110 or equivalent. A comparative survey of mysticism as a recurring phenomenon within major religious traditions. Included are selected writings and representative male and female figures, analyzed from philosophical and psychological viewpoints. Definitions, terms, metaphors, techniques, and stages of the mystical experience.

370 New Religious Movements in the U.S.A. (3)

Beliefs, history, ritual and organizational make-up of non-traditional modern religions in America, such as Scientology, the Unification Church, Hare Krishna (ISKCON) and Rajneeshism as presented by guest speakers. Discussion of "cult," "sect" and the occult will comprise portion of course.

380 The Religious Roots of Nonviolence (3)

Prerequisite: Comparative Religion 105, 110 or consent of instructor. An investigation of the foundations of nonviolence as taught within the major religious traditions: Judaism, Christianity, Islam, Hinduism, and Buddhism.

400 Religion, the Media, and Contemporary Culture (3)

Prerequisite: American Studies 201 or Communications 233 or History 180 or Comparative Religion 105, 110 or consent of instructor. Religion reporting in the secular media; the religious press in America; the influence of the media, both secular and religious, on the shaping of society's values; ethical dilemmas faced by reporters.

401T Studies in Religious Texts (3)

Prerequisite: Comparative Religion 105, 110 or consent of instructor. The study and interpretation of a selected portion of the scriptures of a particular religion, for example, the Hebrew Bible/Old Testament, the New Testament, the Qur'an, the Veda, the Pali Canon.

405 History of the Jews (3)

(Same as History 405)

406 The Holocaust (3)

(Same as History 406)

417B Roman Empire (3)

(Same as History 417B)

421A History of the Christian Church to 1025 (3)

(Same as History 421A)

421B History of the Christian Church From 1025 to the Present (3)

(Same as History 421B)

425B The Reformation (3)

(Same as History 425B)

458 Sociology of Religious Behavior (3)

(Same as Sociology 458)

465A History of India (3)

(Same as History 465A)

465B History of India (3)

(Same as History 465B)

466B Islamic Civilization: Imperial Age (3)
(Same as History 466B)

481 Religion and Politics in the American Experience (3)
Prerequisite: completion of General Education category III.C.1. An examination of the relationship of politics and religion, especially in the U.S. The colonial and constitutional experience, Supreme Court decisions on religious issues, the principal theorists of moral discourse in the public forum, contemporary issues of concern. (Same as Poli Sci 481) Not available for graduate degree credit.

483 American Religious History (3)
(Same as History 483)

485T Major Religious Thinkers and Concepts (3)
Prerequisites: fifteen units in Comparative Religion, including Comparative Religion 105 or 110 and 300, and junior standing or approval of undergraduate adviser. Religious thinkers and concepts dealing with Western, Eastern and non-traditional religious ideas from ancient to modern times. Fulfills university upper-division baccalaureate writing requirement. May be repeated with different content.

499 Independent Study (1-3)
Supervised research projects in Comparative Religion to be taken with consent of instructor and the department chair. May be repeated for credit.

INTRODUCTION

The undergraduate program in computer science prepares students for careers in applications programming, systems programming, and software engineering, as well as entrance into graduate and professional schools. The curriculum emphasizes fundamental concepts exemplified by various types of programming languages, computer architectures, operating systems, and data structures.

The bachelor's program is accredited by the Computing Accreditation Commission (CAC) of the Accreditation Board for Engineering and Technology (ABET).

The Computer Science program is designed to provide the student with the foundations of the discipline as well as the opportunity for specialization. Six objectives are addressed: (1) development of the ability to work effectively as an individual or as a team member to produce correct, efficient, well-organized and documented programs in a reasonable time; (2) development of the ability to recognize problems that are amenable to computer solutions, and knowledge of the tools necessary for solving such problems; (3) development of the ability to assess the implications of work performed; (4) development of an understanding of basic computer architecture and operations; (5) preparation to pursue in-depth training in one or more application areas, or further education in computer science, and (6) development of the ability to write and speak effectively.

DEPARTMENT CHAIR

Ning Chen

VICE CHAIR

James Choi

DEPARTMENT OFFICE

Computer Science 522

DEPARTMENT WEBSITE

http://www.fullerton.edu/ecs

PROGRAMS OFFERED

Bachelor of Science in Computer Science

Master of Science in Computer Science

Minor in Computer Science

FACULTY

Susamma Barua, Ning Chen, James Choi, Hwang Chung, Bin Cong, Jozef Goetz, Allen Holliday, Floyd Holliday, Dorota Huizinga, Chang-Hyun Jo, Donna Kastner, Barbara Laguna, Demetrios Michalopoulos, Mariko Molodowitch, Nick Mousouris, Tae Ryu, Xiong Wang, Les Williams and Chao-Hui (Sara) Wu.

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Each Computer Science major is required to complete a minimum of 130 units including general education. The degree program assumes that the student has already obtained a working knowledge of at least one high-level programming language such as C++ and a working knowledge of personal computing fundamentals and applications, including word processing, spreadsheets, database systems, e-mail systems, and presentation graphics. Students without this knowledge may be required to take up to seven additional units of course work beyond those normally required by the major.

Courses taken toward the major or toward the requirements in related fields must be taken on a traditional (letter grade) basis, unless the course is offered only on a non-traditional (credit/no credit) basis, or if the course is passed by a challenge examination. Students must maintain at least a 2.0 grade point average, in all college-level units attempted, in all units attempted at CSUF, and in all units attempted in the major. A maximum of 6 units of a grade of D can be counted towards the major, provided the courses are Technical Electives or Requirements in Related Fields, excluding the Mathematics requirement. All other courses in the major must be passed with a C or better.

Computer Science Placement Examination

Before entry into the first course required by the major (Computer Science 131), the student is required to take a placement examination or complete the required prerequisite courses offered by the department.

Computer Science Core (49 units)

Students must take and pass a Computer Science Department Programming Exam before taking upper-division Computer Science courses. The exam will be included in Computer Sci 301 Programming Lab Practicum (2 units).

Lower-Division Core (13 units)

Computer Sci 131 Data Structures Concepts (3)

Computer Sci 231 File System Concepts (3)

Computer Sci 240 Computer System Architecture I (3)

Computer Sci 241 Low-level Language Systems (3)

Computer Sci 253U Workshop in UNIX (1)

Upper-Division Core (24 units)

Computer Sci 301 Programming Lab Practicum (2)

Computer Sci 315 Social and Ethical Issues in Computing (1)

Computer Sci 321 High-Level Language Concepts (3)

Computer Sci 331 Data Structures and Algorithm Analysis (3)

Computer Sci 351 Operating Systems Concepts (3)

Computer Sci 375 Problem Solving Strategies (3)

Computer Sci 423 Language Processor Techniques (3)

Computer Sci 440 Computer System Architecture II (3)

Computer Sci 461 Software Engineering Techniques (3)

Technical Electives (12 units)

Each Computer Science major must take 12 units of technical electives which must be approved in advance by a departmental adviser. These electives must be selected from upper-division courses offered by the department or upper-division courses in numerical analysis. The electives shall constitute a coherent body of study consistent with the student's professional and educational objectives. No more than three (3) units of course work may be selected from Computer Science courses numbered 491 through 499.

Requirements in Related Fields (39 units)

Mathematics Requirement (18 units)

Mathematics 150A,B Calculus (4,4)

Mathematics 270A,B Mathematical Structures (3,3)

Mathematics 338 Statistics Applied to Natural Sciences (4)

Science Requirements (12 units)

Physical Science (8 units)

One of the following combinations:

Physics 225 Fundamental Physics: Mechanics (3)

Physics 225L Fundamental Physics: Laboratory (1)

Physics 226 Fundamental Physics: Electricity and Magnetism (3)

Physics 226L Fundamental Physics: Laboratory (1)

OR Chemistry 120A General Chemistry (5)

Chemistry 125 General Chemistry for Engineers (3)

OR Geological Sci 101 Physical Geology (3)

Geological Sci 101L Physical Geology Laboratory (1)

Geological Sci 201 Earth History (4)

Biological Science (4 units)

Biology 101 Elements of Biology (3)

Biology 101L Elements of Biology Laboratory (1)

Undesignated Units (9 units)

These are to be taken in related fields and/or career support fields, with prior adviser approval.

Upper-Division Writing Requirement (3 units)

Computer Science 311, which meets the university requirements for an upper-division writing course, must be completed before the senior year. This course must be passed with a "C" or better.

General Education (39 units)

Computer Science students must complete the university's 51-unit general education requirements. Twelve of these 51 units will be completed in the major's "Requirements in Related Fields." For the remaining 39 units see the "General Education" section of this catalog.

MINOR IN COMPUTER SCIENCE

A Computer Science minor shall consist of 20 units of adviser-approved courses including Computer Science 121, 131, 253U, and 313. It shall include at least six units of upper-division courses (which may include 313) taken in residence. At least 12 units must be distinct and different from the units used to complete the requirements for the major; at least six of these 12 units must be upper-division. All prerequisites must be observed.

MASTER OF SCIENCE IN COMPUTER SCIENCE

Admission to Graduate Standing: Conditionally Classified

A bachelor's degree from an accredited institution with a grade-point average of at least 2.5 in the last 60 semester units attempted is required. Any deficiencies must be made up and will require six or more units of adviser-approved course work with at least a 3.0 average in addition to those required for the degree.

Application Deadlines

Applications need to be postmarked no later than March 1st for the fall semester and October 1st for the spring semester. However, deadlines may be changed based upon enrollment projections. Check out the university graduate studies website for current information at http://www.fullerton.edu/graduate.

Classified Graduate Standing

Achievement of this status requires the following:

1. Approval of a formal study plan (see description below) by the Computer Science Graduate Committee and the Associate Vice President, Academic Programs (or designee).
2. Satisfactory completion of no more than nine units on the study plan.
3. Satisfactory completion of the following courses or equivalents including prerequisites: Computer Science 231, 240, 241, 321, 331, 351, 375, 423, 431, and Mathematics 270A,B.
4. Competency in written communication in English must be demonstrated by a passing score on the California State University Examination in Writing Proficiency. The requirement must be satisfied before the student can be classified and before 500-level courses may be attempted. The student who fails to pass the EWP test may complete Computer Science 311 (Technical Writing for Computer Science) with a grade of B or better as an alternative to the EWP requirement.

Talented professional computer scientists have traditionally come from a diversity of undergraduate preparations. The listed courses have been carefully selected to provide an adequate basis for graduate work while not unfairly precluding admission of persons without a bachelor's degree in computer science. It should be noted, however, that each of these courses has prerequisites and the student without preparation in a closely related degree may have considerable work to complete beyond the courses listed here. Reference should be made to the catalog descriptions for prerequisites of each course deficiency.

If you have not taken many of the undergraduate prerequisites, you can follow an accelerated path of preparation for your graduate courses. The following prerequisite courses are the "fast track" and do not grant units toward the degree.

Comp Sci 901 Programming Concepts and Fundamental Data Structures

Comp Sci 902 Computer Architectures and Low-Level Languages

Comp Sci 903 File Structures and Database Systems

Comp Sci 904 Advanced Algorithms and Data Structures

Comp Sci 905 Programming Languages and Compilers

Comp Sci 906 Operating Systems

These courses and their prerequisites constitute program prerequisites. Students are not allowed to enroll in courses for which they have prerequisite deficiencies. Students with knowledge equivalent to any or all of these prerequisite courses are encouraged to satisfy such prerequisites by advanced placement examinations. Consult a Computer Science graduate adviser for further information.

Study Plan

Prior to admission to classified graduate standing in Computer Science, the student with the aid of a Com-puter Science graduate adviser shall prepare and submit for approval by the Computer Science Department graduate committee a formal study plan consisting of a minimum of 30 units of 400 level and graduate course work.

This shall include Computer Science 440, 461, 589, 597 or 598; one of 541, 542, 543, 544, 545 or 546; and 15 units of electives (9 units must be at the 500-level). At least 15 units shall represent courses offered by the Department of Computer Science. Courses offered by other disciplines, not listed here, and related to the student's objectives in Computer Science may be approved by petition to the Department of Computer Science.

All course work in the study plan must be completed with a GPA of at least 3.0.

Graduate Student Advisement

The graduate program adviser provides overall supervision of the graduate program. The individual student chooses an adviser from the full-time faculty of the Computer Science Department on the basis of the student's particular interests and objectives.

COMPUTER SCIENCE COURSES

Courses are designated as CPSC in the class schedule.

Prerequisites for Computer Science courses may be waived only by department petition.

103 Introduction to Personal Computer Applications (3)

Introduction to use and application of personal computers: word processing, spreadsheets, database systems, e-mail systems and World Wide Web. Evaluation of personal computers and software. (2 hours lecture, 2 hours laboratory)

121 Programming Concepts (4)

Prerequisite: three years high school mathematics including trigonometry. Introduction to programming of digital computers; subroutines, functions, and structure of algorithms; elementary input/output; arrays; strings, and data types; documentation. (3 hours lecture, 2 hours laboratory)

131 Data Structures Concepts (3)

Prerequisites: Computer Science 121 or sufficient score on the Computer Science Placement Exam, high school computer applications, and three years high school mathematics including trigonometry. Data structures: linked lists, stacks, queues, arrays, sequential text files, text formatting.

135 C++ Application Programming (3)

Prerequisite: Computer Science 103 or equivalent. A survey course in programming using the C++ language. Designed for persons seeking basic programming skills. Topics include language organization, data types, control structures, functions, I.O. techniques, classes, and operators. Credit earned not applicable toward B.S. degree in Computer Science. (2 hours lecture, 2 hours laboratory)

203 Advanced Personal Computing (3)

Prerequisite: Computer Science 103. Computer networks. Work-group computing: electronic mail, scheduling, work-flow automation, central repositories. Desktop publishing. Vertical and horizontal software suites. (2 hours lecture, 2 hours laboratory)

223A Ada Programming (3)

Prerequisite: Computer Science 241. Ada control statements, types, subprograms, array and record types, packages, exceptions, access variables, dynamic objects, files, generics, compilation units, tasking, and low-level programming. Laboratory programming assignments. (2 hours lecture, 2 hours laboratory)

223C COBOL Programming (3)

Prerequisite: Computer Science 231. COBOL identification, environment, data and procedure divisions; moving data; printing information; arithmetic verbs; control statements; arrays and tables; sequential, relative, and indexed files; subprograms; report writer module. Laboratory programming assignments. (2 hours lecture, 2 hours laboratory)

223H Visual BASIC Programming (3)

Prerequisite: Computer Science 231. Elements of Visual BASIC, forms and controls, properties, mouse events, multiple-document interface, processing files, accessing databases, dynamic data exchange, object linking and embedding. (2 hours lecture, 2 hours laboratory)

223J Java Programming (3)

Prerequisite: Computer Science 223V or Computer Science 131 and proficiency in C++ language. Characteristics of Java: portable, robust, secure, object-oriented, high performance; using the Java environment; server administration; types, expressions, and control flow; classes, interfaces, and packages; threads; exceptions; class libraries; Java for the Internet; tools, the Java Virtual machine. (2 hours lecture, 2 hours lab per week)

223S Smalltalk Programming (1)

Prerequisite: Computer Science 121 or other high-level programming course. Smalltalk programming language including syntax, classes, objects, methods, polymorphism, inheritance, programming tools, class library. Laboratory programming assignments. (2 hours laboratory)

223U C Programming (1)

Prerequisite: Computer Science 121 or General Engineering 205. Structure of C programs, functions, statements, macros, data types and expressions. Header files and control facilities for separate compilation. Standard system library functions for I/0, math, dynamic memory, process control, and interfacing with the operating system and environment. Laboratory programming assignments. (2 hours laboratory)

223V C++ Programming (3)

Prerequisite: programming concepts course using a language other than C++. C++ types, arithmetic, operators, control structures, assignment operators, functions, scope, recursion, logical operators, arrays, pointers, characters, strings, structures, unions, enumerations, classes, operator overloading, inheritance, virtual functions, polymorphism, stream input/output, templates, exception handling, file processing. Laboratory programming assignments. Credit earned not aplicable toward a bachelor's degree in computer science, except with adviser approval.

231 File System Concepts (3)

Prerequisites: Computer Science 131 and proficiency in the C++ language. Characteristics and utilization of bulk storage devices. B-trees, sequential and random access methods. Introduction to relational data model.

240 Computer System Architecture I (3)

Prerequisites: Computer Science 131 and either Mathematics 270A or Mathematics 280. Digital logic and architecture of a computer system, machine level representation of data, memory system organization, and techniques for interrupt handling. (2 hours lecture, 2 hours laboratory)

241 Low-level Language Systems (3)

Prerequisite: Computer Science 131. Co-requisite: Computer Science 240. The structure of low-level computer languages. Machine, assembly, and macro language programming. Principles of assembler operation. Laboratory programming assignments. (2 hours lecture, 2 hours laboratory) (Same as Electrical Engineering 241)

243 Low-Level Language Workshops (2)

Prerequisite: Computer Science 241. Workshops in the use of specific low-level programming. Offered Credit/No Credit only.

253 Operating System Workshops (1)

Workshops in the use of specific operating systems. See list following. Offered Credit/No Credit only. Prerequisites vary. (2 hours activity)

253U Workshop in UNIX

Prerequisite: Computer Science 121 or General Engineering 205.

253V Workshop in VMS

Prerequisite: Computer Science 121 or General Engineering 205.

301 Programming Lab Practicum (3)

Prerequisites: Computer Science 231, 240, 241 and 253U. Intensive programming covering concepts learned in lower-division courses. Includes procedural and object oriented design, documentation, arrays, classes, file input/output, recursion, pointers, dynamic variables, data and file structures.

303 Multimedia Concepts (3)

Prerequisites: Computer Science 103, 121 and completion of the General Education critical thinking requirements. Components and issues associated with multimedia technology, applications of multimedia and its evolution. Laboratory activities will include developing a multimedia application using a PC-based authoring tool. (2 hours lecture, 2 hours laboratory)

311 Technical Writing for Computer Science (3)

Prerequisite: English 101. Co-requisite: Computer Science 301. Practice in developing documentation skills as used in the computer field. Topics include proposals, feasibility studies, user guides and manuals, business communication and technical presentation. Case studies in professional ethics. Both written and oral reports are required.

313 The Computer Impact (3)

Prerequisites: upper-division standing and one course from GE section III.A.1. Effect of computer use on individuals and organizations. Side effects of innovative technology and the resulting changes to organizations, social institutions, and human perceptions of events. Emphasis on personal responsibility, legal ramifications, and educational implications. Hands-on use of e-mail and the World Wide Web.

315 Social and Ethical Issues in Computing (1)

Prerequisite: Computer Science 311. The course will cover relevant issues that responsible professionals will face in a complex technological society. Issues covered are professional ethics, computer control, piracy, encryption, benefits and downside of computers, privacy and computer crimes. Both written and oral reports required.

321 High-Level Language Concepts (3)

Co-requisite: Computer Science 301. Language definition concepts. Data types and structures. Control structures and data flow. Run-time considerations. Interpretive languages. Introduction to lexical analysis and parsing.

322L Introduction to Computer Aided Design (3)

(Same as Mechanical Engineering 322L)

331 Data Structures and Algorithm Analysis (3)

Prerequisites: Computer Science 301; Mathematics 150B and 270B. Co-requisite: Mathematics 338. Advanced data structures: recursion, stack, trees, hashing, queues, sorting and searching, disjointed sets and graph algorithms. Emphasis on algorithm efficiency analysis. Quantitative experiments and written laboratory reports are required.

341 Client Server Systems (3)

Prerequisites: Computer Science 231. A study of the client/server environment including platforms, operating systems, networks, middleware, distributed processing, data communication, optimization, client/server model, and trends. Programming exercises in a language suitable for the client/server environment. (2 hours lecture, 2 hours laboratory)

351 Operating Systems Concepts (3)

Co-requisite: Computer Science 301. Resource management, memory organization, input/output, control process synchronization and other concepts as related to the objectives of multi-user operating systems.

361 Software Design Concepts (3)

Prerequisites: Computer Science 223A and 241. Concepts and methodologies of the object-oriented paradigm. Object-oriented analysis and object-oriented design. Implementation of moderate size object-oriented systems. Topics in embedded systems. (2 hours lecture, 2 hours laboratory)

375 Problem Solving Strategies (3)

Prerequisites: Computer Science 321, 331 and Mathematics 338. Complexity classes, including undecidable and NP-complete problems. Problem solving strategies applied to parallel and distributed processing, numerical computation, and artificial intelligence. Greedy methods, divide-and-conquer, dynamic programming, approximation, and search methods.

423 Language Processor Techniques (3)

Prerequisites: Computer Science 321 and 331. Concepts behind the design and implementation of programming language processors such as compilers and interpreters. The design of a small compiler from a software engineering perspective.

431 Database Systems (3)

Prerequisites: Computer Science 231 and 331. Database models: hierarchical, network, relational, functional, E-R and object-based. Distributed DBMS and concurrency control. Query optimization.

433 Data Security and Encryption Techniques (3)

Prerequisites: Computer Science 311, 351 and Mathematics 270B. System security and encryption. Current issues in security, encryption and privacy of computer based systems.

437 Web Database Development (3)

Prerequisites: Computer Science 431 and either Computer Science 223J or 223H. Various techniques for developing Web-based database applications using software engineering methodology. Introduce concept and architecture of Web servers, Web database design techniques, client/server side programming, and Web applications tools and techniques.

440 Computer System Architecture II (3)

Prerequisites: Computer Science 240 and 241. Computer performance, price/performance, instruction set design and examples. Processor design, pipelining, memory hierarchy design, and input/output subsystems.

451 Advanced Operating Systems (3)

Prerequisite: Computer Science 351. The course covers internal structures of a modern operating system. The specific topics include processes, process communication, file systems, networking, and the I/O system. There will be several programming assignments which will utilize calls and other low level interfaces.

457 Computer Communications (3)

Prerequisite: Computer Science 351. An introduction to digital data communications. Terminology, networks and their components, common-carrier services, telecommunication facilities, terminals, error control, multiplexing and concentration techniques.

459 Micro-Computer Software Systems (3)

Prerequisite: Computer Science 351. The design and implementation of software. Analysis of a micro-computer operating system and work on a team to implement a significant programming assignment.

461 Software Engineering Techniques (3)

Prerequisites: Computer Science 311, 321, 331 and passing score on the Examination in Writing Proficiency. Analysis, design and implementation of large scale software using classical and object oriented technologies. Students will work in team projects. Oral presentation and written project documentation are required.

465 Principles of Computer Graphics (3)

Prerequisite: Computer Science 331. Examination and analysis of computer graphics; software structures, display processor organization, graphical input/output devices, display files. Algorithmic techniques for clipping, windowing, character generation and viewpoint transformation.

481 Artificial Intelligence (3)

Prerequisite: Computer Science 375. Use of computers to simulate human intelligence. Topics include production systems, pattern recognition, problem solving, searching game trees, knowledge representation, and logical reasoning. Programming in AI environments.

483 Pattern Recognition Techniques (3)

Prerequisites: Computer Science 331. Classification techniques, discriminant functions, training algorithms, potential function theory, supervised and unsupervised learning, feature selection, clustering techniques, multidimensional rotations and rank ordering relations.

491 Variable Topics in Computer Science (1-3)

Prerequisites: junior or senior standing and consent of instructor. Lectures and/or workshop covering various current Computer Science topics. Course may be repeated for up to 3 units. Course topics may be taken only once.

495 Internship in Computer Science (1-3)

Prerequisites: Computer Science or related major and consent of instructor. Practical experience relevant to computer science in government or private agencies. Written and oral reports are required.

499 Independent Study (1-3)

Prerequisite: approval by the computer science chair. Special topic in Computer Science, selected in consultation with and completed under the supervision of instructor.

531 Design of Database Management Systems (3)

Prerequisite: Computer Science 431. Co-requisite: Computer Science 589. Implementation techniques for query analysis, data allocation, concurrency control, data structures, and distributed databases. New database models and recent developments in database technology. Student projects directed to specific design problems.

541 Specification of Software Systems (3)

Prerequisite: Computer Science 461. Co-requisite: Computer Science 589. Models and languages for software system specification, documents, standards, and traceability. Documentation of specification process.

542 Software Verification and Validation (3)

Prerequisite: Computer Science 461. Co-requisite: Computer Science 589. Theory and practice needed to ensure that a high quality software product is developed. Topics covered include a quality assessment, proof of correctness, testing, and limitations of current verification and validation methods.

543 Software Generation and Maintenance (3)

Prerequisite: Computer Science 461. Co-requisite: Computer Science 589. Software creation, reuse, enhancement, adaptation and correction. Alternatives to coding, language concepts, role of standards, style, management, tools, performance analysis, regression analysis, and productivity issues.

544 Principles and Application of Software Design (3)

Prerequisite: Computer Science 461. Co-requisite: Computer Science 589. Exploration and application of different methods and languages for expressing software design. Evaluation of designs.

545 Software Systems Design (3)

Prerequisites: Computer Science 351 and 461. Co-requisite: Computer Science 589. Development of software systems at the highest level. Systems view of software development, trade-offs between software and hardware. User interfaces, requirements analysis, techniques for development from requirements, system integration, and transition into use. Includes case studies and project.

546 Software Project Management (3)

Prerequisite: Computer Science 461. Co-requisite: Computer Science 589. Process considerations in software systems development. Materials and tools in software project planning. Mechanisms for monitoring and controlling software projects.

551 Operating Systems Design (3)

Prerequisite: Computer Science 351. Co-requisite: Computer Science 589. Design and evaluation techniques for controlling automatic resource allocation, providing efficient programming environments and appropriate user access to the system, and sharing the problem solving facilities.

558 Advanced Computer Networking (3)

Prerequisite: Computer Science 457. Co-requisite: Computer Science 589. System-oriented view of computer network design, protocol implementation, networking, high-speed networking, network management, computer network performance issues.

566 Advanced Computer Graphics (3)

Prerequisite: Computer Science 465. Co-requisite: Computer Science 589. Three dimensional: reflection models, shading techniques, rendering process, parametic representation, ray tracing, radiosity, texture, anti-aliasing, animation, color science.

583 Expert Systems Design Theory (3)

Prerequisite: Computer Science 481. Co-requisite: Computer Science 589. Knowledge representation and search strategies for expert systems; logic programming; expert system tools. Project.

585 Artificial Neural Networks (3)

Prerequisite: Computer Science 481. Co-requisite: Computer Science 589. Principles of neural networks; neural networks paradigms, software implementations, applications, comparison with statistical methods, use of fuzzy logic; project.

589 Seminar in Computer Science (3)

Prerequisites: one 400-level course in Computer Science and passing score on the Examination in Writing Proficiency. Research methods in computer science. Student presentations covering current topics, research advances, updating of concepts and verifications of principles of computer science. (Examples: large-scale parallelism, Internet security, design for user interfaces, computers in instruction).

597 Project (3)

Prerequisites: classified graduate standing, approval of the computer science graduate adviser and Computer Science 589.

598 Thesis (3)

Prerequisites: classified graduate standing, approval of the computer science graduate adviser and Computer Science 589.

599 Independent Graduate Research (1-3)

Prerequisites: classified graduate standing, approval of the computer science department chair and Computer Science 589. Special topic in computer science, selected in consultation with and completed under supervision of a full-time faculty member.

901 Programming Concepts and Fundamental Data Structures (3)

Prerequisite: Three years high school math including trigonometry. Using C++, Abstract Data Type (ADT) including linked lists, stacks, queues, tables; Object Oriented Programming (OOP) including classes, operator overloading, inheritance, virtual functions, polymorphism, stream input/output, templates; basic file structures and file processing. Not applicable for graduate degree credit.

902 Computer Architectures and Low-Level Languages (3)

Prerequisite: Mathematics 270A. Digital logic and computer system architecture, machine level representation of data, memory system organization, Input/Output (I/O) Subsystem, and techniques for interrupt handling; Low-level computer language programming; Machine, assembly, and macro languages including principles of assembler operations. Not applicable for graduate degree credit.

903 File Structure and Database Systems (3)

Prerequisite: Computer Science 901 and 902. Fundamental concepts of file structures. Characteristics and utilization of bulk storage devices. Various indexing techniques (e.g., B-tree, Hashing, etc.) and search methods using C++. Fundamental concepts of database management systems. Database design and application development. SQL programming. Not applicable for graduate degree credit.

904 Advanced Algorithms and Data Structures (3)

Prerequisites: Computer Science 903, Mathematics 150B, 270B and 338. Concepts of theoretical computer science at a more advanced level. Topics covered are efficiency, data structures, and algorithms. In particular, Strassen's algorithm for matrix multiplication, various sorting algorithms, NP-completeness, and other topics important to algorithmic efficiency are discussed. A strong mathematical background is recommended. Not applicable for graduate degree credit.

905 Programming Languages and Compliers (3)

Prerequisite: Computer Science 904. Language definitions, bindings, type checking, scopes, data types, control structures, subprograms. Design and implementation of programming language processors such as compliers and interpreters. Not applicable for graduate degree credit.

906 Operating Systems (3)

Prerequisite: Computer Science 903. Intensive Training course covering concepts learned in Computer Science 253U and 351. Includes the principles of process management, memory management, file management, and I/O device management. Also includes Unix basic user commands, editors, Shell scripts, and programming environment. Not applicable for graduate degree credit.

DIVISION OF CHILD, FAMILY, AND COMMUNITY SERVICES

DEPARTMENT CHAIR

Jeffrey Kottler

DEPARTMENT OFFICE

Education Classroom 105

DEPARTMENT WEBSITE

http://hdcs.fullerton.edu/Counsel/counseling.htm

PROGRAMS OFFERED

Master of Science in Counseling

Marriage and Family Therapy

MFT Licensure Preparation

FACULTY

Leah Brew, Joseph M. Cervantes, Sapna Batra Chopra, Matt Englar-Carlson, Jeffrey Kottler, Michael C. Parker, Mary Reed, Maryam Sayyedi, and David S. Shepard

ADVISERS

Counseling, Master of Science: Jeffrey Kottler

Admissions: David S. Shepard

Marriage and Family Therapy (MFT) Licensure: Marty Reed

Community Agency Counseling: Mary Reed

Social Services Administration: Leah Brew

Graduate Counseling Students Association: Sapna Batra Chopra

INTRODUCTION

The Department of Counseling offers a program leading to the Masters of Science in Counseling, with a concentration in Marriage and Family Therapy. The program is designed to prepare students to meet California State Board of Behavioral Sciences (BBS) licensure requirements as a Marriage and Family Therapist (MFT).

Our emphasis is on the training of clinicians who can serve the needs of individuals and families in their communities. We train students to brief and long-term counseling while maintaining professional identities as a counselors and marriage and family therapists.

The program strongly emphasizes a multicultural perspective. We prepare counselors who will be sensitive to the diverse heritages, lifestyles, and special needs of individuals and families. Both our student body and our faculty encompass a wide range of backgrounds and values.

Our theoretical orientation is grounded in humanistic and integrative principles. This means that we are respectful of different counseling philosophies, flexible in our approaches depending on client and student needs, and united in our belief that relationships remain at the core of all helping encounters. We also believe that counselors can best help people by understanding the relationship of emotional distress to family dynamics and to the social and cultural contexts that shape our lives.

The curriculum (or study plan) comprises 48 units, delivered in four phases. Phase I is introductory. Phases II and III form the body of core training in counseling. Phase IV comprises advanced courses and the final project, an original research study.

Conditionally Classified Standing

Phase I 12 units: Counseling 500, 502, 511, 518

Classified Standing

Phase II 12 units: Counseling 520, 522, 523, 526

Phase III 12 units: Counseling 521, 527, 528, 530

Phase IV 12 units: Counseling 560, 562, 584, 597

MASTER OF SCIENCE IN COUNSELING

Admission Requirements

The Department welcomes applicants from diverse academic, social, and cultural backgrounds. International and minority students are especially encouraged to apply. Preparation for the counseling profession is rigorous and multifaceted, necessitating the student's development in intrapersonal, interpersonal, and academic realms. Admission is therefore based upon indicators of the applicant's potential for becoming an effective counseling practitioner, including but not limited to grade point average (GPA), letters of reference, personal statement and departmental interview. Admission is not based on any single factor considered, but on a composite assessment of all factors. The following are required for consideration for admission to the program:

1. An acceptable bachelor's degree (or equivalent) from a regionally accredited institution or its equivalent.
2. A minimum GPA of 3.0 for the last 60 sequential semester units completed.
3. A minimum GPA of 3.2 in four prerequisite behavioral science courses (or their equivalents): counseling theory, statistics or research methods, abnormal psychology, and human development. At least two of the four prerequisites must be completed at the time of entrance; any remaining prerequisite(s) must be completed during the first semester of enrollment.

4. A detailed personal statement (1,500-3,000 words). This statement should inform the faculty about the following:
   a) applicant's personal and educational background, strengths and weaknesses;
   b) applicant's understanding of, motivation and suitability for entering into the counseling profession; and,
   c) applicant's long-term professional goals. This statement is very important.
5. An interview with department faculty.
6. Three letters of recommendation. These letters should address the author's assessment of your suitability for pursuing graduate studies and entering the counseling profession. At least one letter must be academic (i.e., written by a professor or an instructor). The Department understands that for some applicants, contacting former instructors is not feasible; in these situations, professional references, written by supervisors or managers who are familiar with your work, are also appropriate.

Admission Procedures

Admissions to the Department of Counseling is a two-step process.

1. Send CSU graduate application and one set of official transcripts from all colleges/universities to:

   Admissions and Records
   California State University, Fullerton
   P.O. Box 6900
   Fullerton, CA 92834-6900

For application forms, phone University Outreach, at 714-278-2480. You can also complete the CSU graduate application on-line at https://www.csumentor.edu/AdmissionsApp. The application code is #08261.

2. Send three letters of recommendation, the personal statement, and one copy of all transcripts to:

   Department of Counseling
   California State University, Fullerton
   P.O. Box 6868
   Fullerton, CA 92834-6868

No separate department application form is required.

All required materials must be received by the University Office of Admissions and Records and by the Department of Counseling office by the deadline date. Late applications will not be reviewed.

For more information about admissions, please contact our Prospective Student Adviser, at 714-278-3042, or e-mail us at applycounseling@fullerton.edu.

All successful applicants are initially admitted as conditionally classified graduate students. They are invited to attend an orientation session before classes begin, and are encouraged to join the Graduate Counseling Students Association (GCSA).

The department recommends that students take at least six units per semester. Students working full-time are strongly advised against taking more than six units per semester because of the demanding nature of the program; however, students should be aware of time limits for completion of the degree and of the possibility that they may be unable to enroll in a specific course because of the class size limits or other factors.

Application Deadlines

Applications need to be postmarked no later than March 1st for the fall semester and October 1st for the spring semester. However, deadlines may be changed based upon enrollment projections. Check the university graduate studies website for current information at http://www.fullerton.edu/graduate/.

Advisement

Each student is assigned to an adviser upon admission to the department. Advisers provide academic assistance, help students develop official study plans, recommend them for classified standing and advancement to candidacy, and monitor their progress throughout the duration of enrollment.

Students should consult their adviser on a regular basis. It is especially important to initiate contact with an adviser as soon as possible during the first semester of enrollment to verify enrollment in any remaining prerequisite courses and to discuss pre-classification requirements.

Classification and Advancement to Candidacy

Admission to the department as a conditionally classified student does not guarantee advancement to classified standing.

Each student undergoes two comprehensive evaluations; one during Phase II and the other during Phase III. Advancement to classified standing and to candidacy requires a 3.0 GPA and the faculty's on-going assessment of the student's aptitude and suitability for the counseling profession, progress in skill development, interpersonal and cultural sensitivity, and ethical and professional conduct. (See the "Graduate Regulations" section of this catalog for details concerning advancement to classified standing or candidacy.)

MARRIAGE AND FAMILY THERAPY (MFT) LICENSURE

To practice as a Marriage and Family Therapist in California, a license issued by the State Board of Behavioral Sciences (BBS) is required. Our 48-unit program with the MFCC concentration is designed to prepare students to meet licensure requirements (Business and Professions Code, Section 4980.37). Students should note that licensure requirements extend beyond those of the M.S. degree and include an internship and passing official written and oral examinations. It is the student's responsibility to keep informed about licensure requirements as they are subject to change from time to time. An authoritative source of information is Laws and Regulations Relating to the Practice of Marriage and Family Therapy and Licensed Educational Psychology issued by the BBS. For further information, write to the Board of Behavorial Sciences, Department of Consumer Affairs, 400 R Street, Suite 3150, Sacramento, CA 95814-6240; Tel. (916) 445-4933.

Upon graduation, students have 90 days to register with the BBS as an intern. It is advisable to write early to the BBS for a registration packet (e.g., at the beginning of the last semester).

COUNSELING COURSES

Courses are designated as COUN in the class schedule.

252 Career Exploration and Life Planning (3)
Exploration of personal career potentials, employment trends, decision making, goal setting and job search methods.

380 Theories and Techniques of Counseling (3)
(Same as Human Services 380)

449 Seminar on Child Abuse (1)
Prerequisite: Human Services 201 or Child/Adolescent Studies 301 or consent of the instructor. Presents characteristics of child abuse and a review of current laws, appropriate procedures for intervention, and methods of community networking and referral.

475T Counseling Special Populations (3)
Prerequisites: junior or senior standing and completion of introductory social science General Education class (III.C). Counseling assessment and treatment of specific client groups. Various topics will be covered depending on the specialized training and expertise of instructor. May be repeated with different topic for additional credit.

500 The Counseling Profession (3)
Prerequisite: graduate standing. The study of counseling as a mental health profession, including its history, current functions and future directions. Examination of the counselor as a professional, including educational goals, personal values, and cultural understandings. Opportunity to observe master counselors at work.

502 Career and Lifestyle Development (3)
Prerequisite: Completion of or concurrent enrollment in Counseling 500. Survey of career and lifestyle development throughout the lifespan. Major theories and strategies in career counseling. Integration of knowledge of career development with the practice of counseling.

511 Pre-Practicum (3)
Prerequisite: Completion of or concurrent enrollment in Counseling 500. Basic counseling skills, including establishing a therapeutic relationship, facilitating client self-exploration and understanding how one's values influence the counseling process. Crisis intervention also will be addressed. Extensive role play practice.

518 Human Development and Functioning (3)
Prerequisites: Child/Adolescent Studies 312 and completion of or concurrent enrollment in Counseling 500. Integrated study of human development from infancy to old age and its effect upon individuals, couples, and family relationships. Emphasis on relevance to counseling. Role of human sexuality in lifespan development will be addressed.

520 Modes of Individual Counseling (3)
Prerequisite: Counseling 511. Advanced study of major theoretical frameworks in counseling, including models of personality, definitions of individual dysfunction and approaches to treatment. Practice in case conceptualization and application of theories to counseling.

521 Science of Human Inquiry II (3)
Prerequisites: Completion of or concurrent enrollment in Counseling 530, 527 and 528. Applied research methods and program evaluation. Comparative review and synthesis of inquiry approaches. Completion of literature review for anticipated Counseling 597 project. Instructional fee required.

522 Techniques of Brief Treatment and Assessment (3)
Prerequisites: Counseling 511 and 518. Advanced study of the latest edition of the Diagnostic and Statistical Manual of Mental Health Disorders (DSM) with emphasis on detection and assessment of alcohol and substance, spousal or partner, elder, and child abuse, and human sexual dysfunction. Review of brief treatment models.

523 Counseling and Culture (3)
Prerequisite: Counseling 500. Theory, research, and techniques related to counseling people from diverse cultural backgrounds. Emphasis on role plays and skills applications.

526 Professional, Ethical and Legal Issues in Counseling (3)
Prerequisite: Completion of or concurrent enrollment in Counseling 522 and 523. Ethical and legal standards as related to critical professional issues, including child abuse, spousal or partner abuse, elder abuse, and substance abuse. The relationship and integration of values for the counselor's role in practice, training, supervision, test usage, and consultation.

527 Systems of Family Counseling (3)
Prerequisite: Completion of or concurrent enrollment in Counseling 511. Survey of family systems models, including Adler, Satir, Bowen, Haley, Minuchin, and others.

528 Groups: Process and Practice (3)
Prerequisites: Counseling 500 and 511. Basic issues and concepts related to group process. Demonstration of group leadership skills with an emphasis on self-reflection.

529 Practicum: Supervised Counseling of Children or Adolescents (3)
Prerequisites: classified standing, Counseling 523, and consent of fieldwork coordinator. Supervised clinical practice with children or adolescents in approved community agencies. A minimum of 105 contact hours of counseling required for course completion.

530 Practicum (3)
Prerequisites: classified standing; completion of Counseling 520 and 526; consent of fieldwork coordinator and completion of or concurrent enrollment in Counseling 502, 527 and 528. Supervised clinical practice with adults, families and children in approved community agencies. A minimum of 105 contact hours of counseling required for course completion.

560 Psychological Testing For Counselors (3)
Prerequisites: Counseling 502, 522 or consent of instructor and completion of or concurrent enrollment in Counseling 530. Theories and applications of psychological testing and other means of appraisal, as they relate to the practice of community-based counseling and marriage and family therapy.

562 Counseling Couples (3)

Prerequisites: completion of Counseling 527 or consent of instructor and completion of or concurrent enrollment in Counseling 529 and 530. The treatment of couples, including overview of current theories, assessment, goal-setting, interventions, ethical issues, and diversity issues. Assessment and treatment of spouse abuse. Study of sexual dysfunctions and sex therapy.

575T Professional Issues in Counseling (3)

Prerequisite: graduate standing. Exploration of contemporary contextual issues facing the practicing counseling professional. The topics offered depend on the specialized training and experience of instructor. May be repeated for credit with different topic. Current topics include clinical supervision, program evaluation, career development, and consultation.

584 Advanced Practicum (3)

Prerequisites: Counseling 529 or 530 and consent of Fieldwork Coordinator. Advanced supervised clinical practice wit adults, families, and children in approved community agencies. A minimum of 105 contact hours of counseling required for course completion.

597 Project (3)

Prerequisites: Counseling 521 and consent of faculty adviser. Capstone program experience; taken final semester. Student conducts original research relevant to the counseling field.

598 Thesis (1-3)

Prerequisites: Counseling 529 or 530; consent of graduate program adviser. Independent research culminating in a thesis. Recommended for pre-doctoral students. May be repeated for credit.

599 Independent Study (1-3)

Prerequisite: consent of instructor or graduate program adviser. Research and development in counseling pursued independently with periodic conference with instructor. May be repeated for credit.

INTRODUCTION

Criminal Justice is the study of the causes, consequences and control of crime. Like other new and developing fields, criminal justice is difficult to define as it draws from a number of different disciplines, including psychology, public administration, philosophy, political science, sociology and law.

The program leading to the Bachelor of Arts in Criminal Justice is designed to acquaint preservice and inservice students with the principles and practices of criminal justice in America. Although the department's curriculum allows for the development of depth in one of the subject's substantive subsystems (i.e., law enforcement, courts or corrections), the overriding objective is to familiarize students with activities in all the above areas.

The department is both academic and professional in that it is an interdisciplinary attempt to relate intellectual issues and practitioner perspectives to the challenge of crime in a free society. In this regard, the department provides preparation for employment with a related agency and/or further study (e.g., law school).

ADVISEMENT

Students are urged to attend a "New Major Advisement Session" prior to their first semester at the university as a Criminal Justice major. This is particularly important for community college transfers. Failure to do so may delay graduation. The department's "New Major Advisement Sessions" are regularly and frequently scheduled. See the bulletin board or call the division office for details.

AWARDS IN CRIMINAL JUSTICE

Graduating seniors are eligible for the Academics Award, the Activities Award, the Overall Achievement Award and the William Hobbs Scholarship for outstanding law-related coursework. The Dan Byrnes Scholarship is given annually to an undergraduate who plans a career in law enforcement.

BACHELOR OF ARTS IN CRIMINAL JUSTICE

The Criminal Justice degree requires a minimum of 120 units, which includes courses for the major, General Education, all University requirements, and free electives. For the major, every student must complete the core courses (21 units) and a minimum of 12 units from the elective curriculum. In addition, each student is required to complete 9 units in a correlated curriculum.

For additional information regarding the Criminal Justice program and its courses, check with the Division office in University Hall 511.

Core Curriculum (21 units)

Crim Just 300 Introduction to Criminal Justice (3)

Crim Just 310A Criminal Law: Substantive (3)

Crim Just 315 The Enforcement Function (3)

Crim Just 320 Introduction to Public Management and Policy (3)

Crim Just 330 Crime and Delinquency (3)

Crim Just 340 Criminal Justice Research Methodology (3)

Crim Just 345 Corrections (3)

DIVISION OF POLITICAL SCIENCE AND CRIMINAL JUSTICE

DIVISION CHAIR

Alan Saltzstein

DIVISION OFFICE

University Hall 511

DIVISION WEBSITE

http://hss.fullerton.edu/polisci

PROGRAMS OFFERED

Bachelor of Arts in Criminal Justice

Minor in Criminal Justice

FACULTY

Rhonda Allen, W. Garrett Capune, George M. Dery, III, James Farris, James Lasley, Jarret Lovell, Kevin Meehan, Jill Rosenbaum

NOTE: Criminal justice majors must achieve a grade of C or better in 6 of the last 7 core courses in order to earn their Bachelor's Degree.

Elective Curriculum (12 units)

Crim Just 310B Criminal Law: Procedural (3)

Crim Just 350 Principles and Concepts of Investigation and Reporting (3)

Crim Just 385 Minorities and the Criminal Justice System (3)

Crim Just 405 Criminal Justice Policy (3)

Crim Just 422 Human Resources Management (3)

Crim Just 425 Juvenile Justice Administration (3)

Crim Just 430 Women and Crime (3)

Crim Just 450 Organized Crime and Intelligence Analysis (3)

Crim Just 455 Gangs and the Criminal Justice System (3)

Crim Just 462 Crime Analysis (3)

Crim Just 465 Law, Punishment, and Justice (3)

Crim Just 470 Sex, Crime and Culture (3)

Crim Just 472 The Judicial Process

Crim Just 475T Topics in Administration of Justice: A Seminar (3)

Crim Just 480 Courtroom Evidence (3)

Crim Just 485 Search, Seizure and Interrogation I (3)

Crim Just 486 Search, Seizure and Interrogation II (3)

Crim Just 495 Internships (3)

Crim Just 499 Independent Study (1-3)

Correlated Curriculum (9 units)

Courses in the related fields shall be selected by the student in consultation with an adviser. The purpose of this requirement is to allow for an awareness of the disciplines contributing to the creation of "criminal justice" as a separate subject. Upper-division courses in such fields as philosophy, political science, psychology and public administration are included. For a list of courses that can count in this regard, check with the Division office.

Writing Requirement (3 units)

One of the following courses:

Crim Just 350 Principles and Concepts of Investigation and Reporting (3)

English 301 Advanced College Writing (3)

English 365 Legal Writing (3)

For further information on these alternatives, please see a Criminal Justice adviser.

MINOR IN CRIMINAL JUSTICE

The Minor in Criminal Justice consists of a total of 18 units including three required and three elective courses to be chosen from the Criminal Justice curriculum. The required courses are:

Crim Just 300 Introduction to Criminal Justice (3)

Crim Just 310A Criminal Law: Substantive (3)

Crim Just 330 Crime and Delinquency (3)

CRIMINAL JUSTICE COURSES

Courses are designated as CRJU in the class schedule.

300 Introduction to Criminal Justice (3)

A study of the underlying ideological issues confronting America's system of criminal justice, with an emphasis on key concepts in conflict (law and order, rehabilitation vs. retribution, etc.)

310A Criminal Law: Substantive (3)

Prerequisite: Crim Just 300. The general doctrines of criminal liability in the United States and the classification of crimes as against persons, property and the public welfare. The concept of governmental sanction of the conduct of the individual.

310B Criminal Law: Procedural (3)

Prerequisite: Crim Just 300. Legal problems associated with the investigation of crime, the acquisition of evidence, the commencement of a criminal proceeding, the prosecution and defense of charges, sentencing and appeal. The development of existing procedures and examination of current efforts for reform.

315 The Enforcement Function (3)

Prerequisite: Crim Just 300 or consent of instructor. The historical and philosophical development of the enforcement function at federal, state and local levels; community controls, political pressures and legal limitations pertaining to law enforcement agencies at each level of government; police policies and problems vis-a-vis the administration of justice as a system.

320 Introduction to Public Management and Policy (3)

Prerequisites: Political Science 100 and completion of General Education Category III. C.1. Introduction to the Social Sciences. Introduction to the field of public administration. The course emphasizes current trends and problems of public sector agencies in such areas as organization behavior, public budgeting, personnel, planning, and policy making. Examples and cases from the criminal justice field are emphasized. (Same as Poli Sci 320)

322 Leadership for Public Service (3)

(Same as Poli Sci 322)

330 Crime and Delinquency (3)

Prerequisite: Crim Just 300. This course provides an overview and analysis of the evolving and conflicting purposes and practices associated with the topics of criminology, crime and delinquency with an emphasis on contemporary strategies for the prevention, remediation and control of crime and delinquency.

340 Criminal Justice Research Methodology (3)

Prerequisite: Crim Just 300. Elementary statistics including descriptives, measurements and tests; data collection methods for effort evaluation and program prediction; systems analysis techniques.

345 Corrections (3)

Prerequisite: Crim Just 300 or consent of instructor. This course provides an overview and analysis of the evolving and conflicting purposes and practices associated with the adult corrections systems, with an emphasis upon contemporary strategies for treating/punishing offenders both while incarcerated, as well as while in the community.

350 Principles and Concepts of Investigation and Reporting (3)

Prerequisite: Crim Just 300 or consent of instructor. Principles of investigative activity practiced by police, courts and correctional sub-systems. Reporting procedures and requirements. Meets classroom portion of upper-division writing requirement for Criminal Justice majors, or as an elective in the concentration curriculum.

385 Minorities and the Criminal Justice System (3) (Formerly 440)

Prerequisite: completion of General Education Category II. and Category III. C.1; Crim Just 300 recommended. An introduction to the issues surrounding the charges of overt and indirect institutionalized racism in the criminal justice system. An overview of patterns of criminal behavior among minority groups in the U.S. will be discussed.

405 Justice Policy (3)

Prerequisite: Crim Just 300 and 330. Not open to students who have studied Criminal Justice policy as Crim Just 475T. The evolving purposes and practices associated with the development of criminal justice policies, principally in the United States. Particular topics, such as sentencing legislation, illustrate the development, adoption, and impact of public policy on criminal justice systems.

422 Human Resources Management (3)

(Same as Poli Sci 422)

425 Juvenile Justice Administration (3)

Prerequisite: Crim Just 300 or consent of instructor. Definitions of "delinquency" and the related responses of the interested institutions (police, courts and correction); the juvenile court (past and present), and prevention and correction programs (practicing and proposed).

430 Women and Crime (3)

Prerequisite: Crim Just 300 or Philosophy 302. An examination of women as criminals and victims, gender differences in criminal behavior and the role of women as professionals in the criminal justice system.

450 Organized Crime and Intelligence Analysis (3)

Prerequisite: Crim Just 300. History and development of organized crime. Current criminological strategies of control of organizational crime. Systems theories and other analytical techniques of police intelligence.

455 Gangs and the Criminal Justice System (3)

Prerequisites: Crim Just 300 or consent of instructor. Causal factors of, and legal solutions to, gang related crime in the United States are examined. Relevance of sociological, psychological, economic, and educational deviance theories to justice intervention strategies is emphasized.

462 Crime Analysis (3)

Prerequisites: Crim Just 300 and 340. This course will examine the crime analysis function within the law enforcement organization, demonstrate how to develop, implement and operate a crime analysis unit, and discuss the nexus between crime analysis, field and investigative operations, and administrative bureaus.

465 Law, Punishment and Justice (3)

Prerequisite: Crim Just 300. Theoretical scholarship in criminal justice is increasingly concerned with law in relation to delivery of justice and practices of punishment. Students will examine the rule of law, question whether justice is different from law, and review the role punishment plays.

470 Sex, Crime and Culture (3)

Prerequisite: Criminal Justice 300 or consent of instructor. Analysis of rationale for law's concern with sexual conduct, developed via discussion of selected offenses and offenders. Lectures and guest speakers also present opposing perspectives regarding the role of law enforcement, courts and correction. Research and reform will be reviewed. Field trips to be arranged.

472 The Judicial Process (3)

Prerequisites: Crim Just 300 or Poli Sci 375 or consent of instructor. The nature, functions and roles of courts. Roles of major participants in the American legal system, including judges, attorneys and citizens. The administration of justice as a system. (Same as Poli Sci 472)

475T Topics in Administration of Justice: A Seminar (3)

Prerequisite: Crim Just 300 or consent of instructor. Current social, legal and practical problems confronting police, courts and corrections. A "variable topic" class with specific subjects to be announced each semester.

480 Courtroom Evidence (3)

Prerequisite: Crim Just 300 or consent of instructor. The rules of evidence in the context of a criminal trial in a California court. The rules, their application and their rationale. Lecture, discussion and simulated courtroom situations.

485 Search, Seizure and Interrogation I (3)

Prerequisite: Crim Just 300 or consent of instructor. Analysis of the laws that apply in common street search-and-seizure and interrogation situations in California; how they have evolved, and what developments are anticipated.

486 Search, Seizure and Interrogation II (3)

Prerequisite: Crim Just 300 or consent of instructor. An analysis of the laws that apply in some search-and-seizure and interrogation situations, such as those involving the border patrol and College officials.

492 Pre-law Internship (3)

(Same as Poli Sci 492)

495 Internships (3)

Prerequisites: Crim Just 300 or senior standing and consent of instructor. The criminal justice professions; eight to 20 hours per week as a supervised intern in a public agency or related organization. In addition to the job experience, interns meet in a weekly three-hour seminar.

499 Independent Study (1-3)

Prerequisites: at least 12 units of criminal justice and consent of adviser. Student selects an individual research project, either library or field. Conferences with adviser as necessary, culminating in one or more papers. May be repeated for credit.

DEPARTMENT CHAIR
Stewart Long

DEPARTMENT OFFICE
Langsdorf Hall 702

DEPARTMENT WEBSITE
http://business.fullerton.edu/economics

DIRECTOR, CENTER FOR ECONOMIC EDUCATION
Chiara Grafton-Lavoie

CENTER FOR ECONOMIC EDUCATION
Langsdorf Hall 530

PROGRAMS OFFERED

Bachelor of Arts in Business Administration

Concentration in Business Economics

Bachelor of Arts in Economics

Minor in Economics

Master of Arts in Economics

Master of Business Administration

Concentration in Business Economics

FACULTY

Radha Bhattacharya, Victor Brajer, Edward Castronova, Kwang-wen Chu, James Dietz, Vincent Dropsy, Adrian Fleissig, Andrew Gill, Jane Hall, Walter Hettich, Sei-Wan Kim, Stewart Long, Robert Michaels, Howard Naish, Dipankar Purkayastha, Morteza Rahmatian, Lakshmi Raut, Suddhasatwa Roy, Eric Solberg, Denise Stanely, David Wong

INTRODUCTION

As a scholarly discipline, economics is over two centuries old, dating back to the French physiocrats and Adam Smith in the 18th century. The nature of economic analysis has been described by John Maynard Keynes as ". . . a method rather than a doctrine, an apparatus of the mind, a technique of thinking which helps its possessors to draw correct conclusions."

Economic methods are used to study a basic question which faces all societies: how should limited resources be used to produce goods and how should that production be distributed? Not all wants can be satisfied because resources and knowledge are limited. Therefore, societies are faced with choices. These choices are made in different ways: by custom, by command and centralized control, or by a system of markets and prices as in our mixed economy. Economists examine alternative solutions to the basic economic problem by analyzing costs and benefits of changing existing patterns of resource use.

Economists work in many specialties including money and banking, financial economics, international trade and finance, labor, public finance, industrial organization, regulation, environment and natural resources, economic development, transitional economies, e-commerce, business cycles, planning and forecasting. Social issues and problems such as poverty, crime, discrimination, minimum wage, anti-trust, immigration, aging, energy, pollution, health and education are typical subjects of faculty research. The Department of Economics offers up to date courses that prepare students for the issues raised by the new global economy, the modern telecommunications and computer revolution, and the economics of e-commerce.

The faculty of the Economics Department participate in programs leading to both undergraduate and graduate degrees. One undergraduate program leads to a bachelor of arts degree with a major in economics. Another undergraduate program leads to a bachelor of arts degree with a major in business administration and a concentration in business economics and requires a larger number of business courses. Both programs prepare the student for a variety of career opportunities in business and government as well as advanced studies in economics, business, public administration and law. Graduate study is offered in economics, leading to a master of arts degree. Alternatively, students may follow the Master of Business Administration curriculum, with a concentration in business economics.

Advisers

The Business Advising Center, Langsdorf Hall 731, provides information on admission, curriculum and graduation requirements; registration and grading procedures; residence and similar academic matters. In addition, all economics majors should see a faculty adviser in the Department of Economics for information on career opportunities and advanced study. Undergraduates should consult the department office for the name of their faculty adviser. Graduate students should consult the graduate adviser, Dipankar Purkayastha.

Credential Information

For students interested in a teaching credential, the Department of Economics offers courses which may be included in Subject Matter Preparation Programs and Supplementary Authorization Programs for elementary and secondary teaching.

Further information on the requirements for teaching credentials is found in the Teaching Credential Programs section of this catalog and is also available from the Department Office for Elementary and Bilingual Education and the Department Office for Secondary Education. Students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Office of Admission to Teacher Education, Education Classroom 207.

Awards in Economics

Formuzis, Pickersgill, and Hunt Student Paper Award
Outstanding Senior in Economics
Outstanding Graduate Student in Economics
Wall Street Journal Student Achievement Award
Murray Wolfson Memorial Scholarship
Norman Townshend-Zellner Award
Levern Graves Award

BACHELOR OF ARTS IN ECONOMICS

Admission to the Economics major involves two steps. Students who apply to the major are initially classified as Pre-economics. After completing the lower-division core requirements with grades of at least C, students may apply to the Economics major. Pre-economics students may take lower-division business and economics courses, but most upper-division courses are not open to Pre-economics students.

The Bachelor of Arts in Economics requires a minimum of 120 units which includes courses for the major, General Education, all university requirements, and free electives. All of the following requirements must be met for the degree. Students must earn a grade of at least C in each course listed below. However, a C average will be acceptable in the upper-division economics electives. For assistance in interpreting these requirements contact the Business Advising Center, Langsdorf Hall 731. Students should also contact their faculty adviser in the Economics Department prior to or during their first semester.

Required Lower-Division Courses

Accounting 201 Financial Accounting (3)

Bus Administration 201 Business Writing (3)

Economics 201 Principles of Microeconomics (3)

Economics 202 Principles of Macroeconomics (3)

Economics 440 Introduction to Econometrics (3)

OR Math 150B Analytic Geometry and Calculus (4)

OR Accounting 201B Managerial Accounting (3)

Info Sys/Decision Sci 265 Introduction to Computing and Application Software (3)

Math 135 Business Calculus (3)

OR Math 130A Short Course in Calculus (4)

OR Math 150A Analytic Geometry and Calculus (4)

Required Upper-Division Courses

Business Administration 301 Advanced Business Communication (3)

Economics 310 Intermediate Microeconomic Analysis (3)

Economics 320 Intermediate Macroeconomic Analysis (3)

Economics 340 Economic Research Methods (3)

Info Sys/Decision Sci 361A Quantitative Business Analysis: Probability & Statistics (3)

and 15 units of upper-division economics electives (6 units of which must be 400-level)

No more than 3 units of independent study may be used to meet the 400-level electives requirement.

Other Requirements, Grades and Residence

Other Subjects. Complete at least 50 percent of the coursework for the degree outside the College of Business and Economics. The department recommends that these courses be from the social sciences and mathematics. Students planning to do graduate work in economics are advised to take Math 150A,B; Economics 440 and Economics 441. Complete all university requirements for the bachelor's degree.

Grade-Point Average (GPA). Attain at least a 2.0 GPA (C average) in all university courses and in the upper-division economics electives. Earn at least a C grade in each course required for the major (other than the upper-division economics electives).

Grade Option. Take all required courses in economics, accounting and management science/information systems for a letter grade (A,B,C,D,F). The credit/no credit grading option may not be used for these courses, and a grade of CR (credit) will not satisfy the requirements for the degree. Exception: courses in calculus may be taken under the credit/no credit grading option; however, if it is also taken to meet general education requirements, then it must be taken for a letter grade.

Residence. At least 15 units of courses must be taken in residence at the College of Business and Economics at Cal State Fullerton. Also, students must fulfill University residence requirements.

BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Business Economics Concentration."

MINOR IN ECONOMICS

The economics minor covers the basics in the discipline of economics and gives students the opportunity to explore personal interests through electives. Note that a course in calculus (Math 135 or equivalent) is prerequisite to Economics 310 and 320. Students must earn a grade of at least C in each course listed below.

Required Lower-Division Courses

Economics 201 Principles of Microeconomics (3)

Economics 202 Principles of Macroeconomics (3)

Required Upper-Division Courses

Business Administration 301 Advanced Business Communications (3)

Economics 310 Intermediate Microeconomics Analysis (3)

OR Economics 315 Intermediate Business Microeconomics (3)

Economics 320 Intermediate Macroeconomics Analysis (3)

and 9 units of upper-division economics electives

Note: Students with a major in business administration and a concentration other than economics, who wish to minor in economics, must take Economics 201, 202, and 310 as part of their major. For such students, these requirements in the minor will be waived and the minor will consist of Economics 320 and nine units of upper-division economics electives. Students with a major in business administration and a concentration in business economics may not also minor in economics.

MASTER OF BUSINESS ADMINISTRATION

See "Business Administration, MBA Specialist Plan."

MASTER OF ARTS IN ECONOMICS

This program provides preparation for professional careers in private industry and government and provides a foundation for further graduate work at the doctoral level. Full-time and part-time students can be accommodated. Most of the courses are scheduled in the evening.

The curriculum is designed for students with an undergraduate degree in business administration or economics, and consists of 10-11 courses (30-33 units). Provided that all prerequisites have been satisfied, the program may be completed in one year (full-time) or two and one-half years (part-time).

The required courses progress from economic theory through economic model building and estimation to the seminar in which the student prepares a thesis applying economic theory and econometric methods to a specific area of investigation. The curriculum also includes four to six courses (12-18 units) of electives.

Most graduate courses in the College of Business and Economics require classified "CBE status" and are open only to students with classified standing in the M.A. in Economics, M.B.A., M.S. in Accountancy, M.S. in Management Science, or M.S. in Taxation programs.

Admission

Students meeting the following requirements will be admitted to post-baccalaureate-unclassified standing:

1. Acceptable bachelor's degree from appropriately accredited institution, or equivalent.
2. Grade-point average of at least 2.5 in the last 60 semester units attempted, and in good standing at last college attended. Postbaccalaureate-unclassified students may enroll in undergraduate courses (100 through 400 level) but are generally ineligible for graduate economics courses (500 level). Such students may wish to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student may file an Application for Change of Academic Objective requesting admission to the M.A. in Economics program. Admission to the university as a postbaccalaureate – unclassified student does not constitute admission to the program, does not confer priority, nor does it guarantee future admission. Students planning to apply for admission to the program should confer with the graduate adviser in the Department of Economics. Students meeting the following departmental requirements will be admitted with conditionally classified standing:
3. An average score of 500 each on the Graduate Record Examination (G.R.E.) verbal and quantitative sections.
4. Three letters of recommendation and a statement of purpose sent directly to the Graduate Adviser in Economics.
5. For international students a TOEFL score of 570. A student scoring between 550 and 570 may be admitted conditionally depending upon an evaluation of the entire application file. The student may be required to complete a department approved course(s). Conditionally classified students may take a limited number of courses at the graduate level, subject to the approval of the graduate adviser of the Department of Economics. Students are expected to advance promptly to classified standing. Students meeting the following additional requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they are qualified.
6. Completion of the following courses at Cal State Fullerton (or equivalent courses at other institutions) with a grade-point average of at least 3.0 (B average). The course in calculus must have a grade of at least C.

   Economics 201 Principles of Microeconomics (3)

   Economics 202 Principles of Macroeconomics (3)

   Economics 310 Intermediate Microeconomic Analysis (3)

   OR Economics 315 Intermediate Business Microeconomics (3)

   Economics 320 Intermediate Macroeconomic Analysis (3)

   One 400-level economics course

   Info Sys/Decision Sci 361A Quantitative Business Analysis: Probability and Statistics (3)

   Mathematics 135 Business Calculus (3)
7. Approval of study plan.

Application Deadlines

Applications need to be postmarked no later than March 1st for the fall semester and October 1st for the spring semester. However, deadlines may be changed based upon enrollment projections. Check the university graduate studies website for current information at http://www.fullerton.edu/graduate.

M.A. CURRICULUM

Students are urged to meet as soon as possible with the graduate adviser in the Department of Economics to file a study plan and advance to classified standing.

Any study plan course in which a D grade is received must be repeated with at least a C grade, regardless of the overall grade-point average of the student.

Required Courses (15 units)

Economics 441 Introduction to Mathematical Economics (3)

Economics 504 Econometric Analysis (3)

Economics 502 Advanced Microeconomic Analysis (3)

Economics 503 Advanced Macroeconomic Analysis (3)

Economics 595 Current Research in Economics (3)

OR approved 500-level substitute

Area & Elective Courses (12-18 units)

Area courses require nine units chosen from the student's field of interest. Coursework may focus on the following areas:

1. Environmental and natural resource economics (six units from Economics 416, 461, 462 and six units approved 500-level electives);
2. International economics and finance (Economics 411, 433, and six units approved 500-level electives);
3. Applied economic analysis involving coursework related to industrial organization and labor (six units from Economics 410, 412, 413, and six units approved 500-level electives);
4. The public sector (six units from Economics 416, 417, 420, 421, and six units approved 500-level electives);
5. Banking and finance (six units from Economics 420, 421, and six units approved 500-level electives); and
6. Economics of human capital, health and aging (Economics 412, Gerontology 506 and six units approved 500-level electives.

Among area and elective courses, 12 units must be taken with at least six units at the 500- level and at least six units must be in economics.

Terminal Evaluation (0-3 units)

Economics 598 Thesis Research (3)

OR Comprehensive Exam

ECONOMICS COURSES

Courses are designated as ECON in the class schedule.

100 The Economic Environment (3)

The application of economics to the problems of unemployment and inflation, the distribution of income, competition and monopoly, the role of government in the economy, and other policy issues. Not open to prebusiness, business administration majors or minors, economics majors or minors, or international business majors.

201 Principles of Microeconomics (3)

Principles of individual consumer and producer decision-making in various market structures; the price system; market performance and government policy.

202 Principles of Macroeconomics (3)

Prerequisite: Economics 201. Principles of macroeconomic analysis and policy; unemployment and inflation; financial institutions; international trade; economic growth; comparative systems.

310 Intermediate Microeconomic Analysis (3)

Prerequisites: Economics 202 and Mathematics 135. Corequisites: Business Admin 301 and Info Sys/Decision Sci 361A or equivalent. Rational decision-making behavior of consumers and firms and price and output determination in markets. Primarily for economics majors, but open to all students who qualify.

315 Intermediate Business Microeconomics (3)

Prerequisites: Economics 202 and Mathematics 135. Corequisites: Business Admin 301 and Info Sys/Decision Sci 361A or equivalent. Analysis of business decisions in alternative market structures with special emphasis on problem solving in a business context using economic concepts and methods. Not open to economics majors. Students may not receive credit for both Economics 310 and 315.

320 Intermediate Macroeconomic Analysis (3)

Prerequisites: Economics 202 and Math 135. Corequisites: Business Admin 301, Info Sys/Decision Sci 361A or equivalent. The determinants of the level of national income, employment and prices, and monetary and fiscal policies.

330 Comparative Economic Systems (3)

Prerequisite: Economics 100 or 201. Alternative economic systems; their theoretical foundations, actual economic institutions, and achievements and failures. Contrast between socialist and capitalist systems.

331 Economies in Transition (3)

Prerequisite: Economics 100 or 201. The transformation from centrally-planned to market-oriented economies in Russia and Eastern Europe. Focuses on the economic, social and political costs and benefits involved in the restructuring of economic systems.

332 Economies of the Pacific Rim (3)

Prerequisite: Economics 100 or 201. Dimensions of industrialization, agriculture, investment, human resources, and trade in economies of the Far East (including Japan and China), India, and related nations of the Pacific Rim.

333 Economic Development: Analysis and Case Studies (3)

Prerequisite: Economics 100 or 201. The processes of economic growth with references to developing areas. Capital formation, resource allocation, relation to the world economy, economic planning and institutional factors, with case studies.

334 Economics of Latin America and the Caribbean (3)

Prerequisite: Economics 100 or 201. Corequisite: Business Admin 301. Examines regional economic problems within an international context: dependence, industrialization and the international corporation; agriculture; regional cooperation; inflation; trade and debt problems. Major economic thinkers will be discussed.

335 The International Economy (3)

Prerequisite: Economics 100 or 201. The theory, practice and institutions of the international economy. International trade and investment, balance of payments, foreign exchange rates, multi-national enterprise, international economic policy. Current trade issues: European Community, trade with developing countries, Eastern Europe, and the states of the former Soviet Union; General Agreement on Tariffs and Trade (GATT) and other major trade agreements.

340 Economic Research Methods (3)

Prerequisites: Economics 202, Info Sys/Decision Sci 361A or equivalent. This course will introduce the student to the basics of applied economic research. Students will learn how to access existing economic knowledge, locate and compile economic data, and analyze economic problems using theory and quantitative methods.

350 American Economic History (3)

Prerequisite: Economics 100 or 201. The development of American economic institutions; economic problems, economic growth and economic welfare.

351 European Economic History (3)

Prerequisite: Economics 100 or 201. The evolution of European Economic institutions and their relation to the development of industry, commerce, transportation and finance in the principal European countries.

361 Urban Economics (3)

Prerequisite: Economics 100 or 201. Theory and analysis of the urban economy, urban economic problems and policy.

362 Environmental Economics (3)

Prerequisite: Economics 100 or 201. Economic analysis of environmental problems and related issues: externalities, property rights, social costs and benefits, user cost, rent and decision making under uncertainty.

410 Industrial Organization (3)

Prerequisites: Business Admin 301, Economics 310 or equivalent. Business organization, conduct and performance; the rationale and impact of public policy on business and business activities, including the regulated industries, sick industries and antitrust policy.

411 International Trade (3)

Prerequisites: Business Admin 301, Economics 310 or 315 or equivalent. The theory of international gains from free trade, effects of tariff and non-tariff barriers, and conduct of commercial policy. The balance of payments, the theories of exchange rate determination, and other international economic issues.

412 Labor Economics (3)

Prerequisites: Business Admin 301, Economics 310 or equivalent. Labor supply and demand, labor force participation, employment, unemployment, human capital, wage differentials, disadvantaged labor market groups, discrimination and wage-related income transfers.

413 Law and Economics (3)

Prerequisites: Business Admin 301; Economics 310 or 315. An economic analysis of the common law-property, contract, and tort-focusing on the use of microeconomic theory to study the economic efficiency characteristics and effects of these laws. An emphasis will be placed on the analysis of specific legal cases.

416 Benefit Cost and Microeconomic Policy Analysis (3)

Prerequisites: Business Admin 301, Economics 310 or equivalent. Application of microeconomic models and welfare economics to public policy. Concepts of economic efficiency, economic surplus and equity. Measurement of policy effects, including benefit-cost analysis, with applications to selected policy areas such as education and environmental programs.

417 Public Finance (3)

Prerequisites: Business Admin 301, Economics 310 or equivalent. Government finance at the federal, state and local levels; the impact of taxation and spending on resource allocation, income distribution, stabilization and growth.

420 Money and Banking (3)

Prerequisites: Business Admin 301, Economics 320 or equivalent. The money supply process and the impact of monetary policy on economic activity.

421 Monetary and Fiscal Policy (3)

Prerequisites: Business Admin 301, Economics 320 or equivalent. The techniques of monetary and fiscal policy and their relative roles in promoting economic stability and growth.

431 International Macroeconomics and Growth (3)

Prerequisites: Business Admin 301 and Economics 320. Macroeconomic analysis of the open economy: the impact of stabilization policies in a global economy, the role of the balance of payments, the international monetary system and growth in less developed countries.

433 The Less Developed Countries and the World Economy (3)

Prerequisites: Economics 310, 315, or 515 and Economics 320 or 521. In-depth analytical study of development and underdevelopment in the poorer countries in the context of a changing international economic order. Both the neo-classical and the political economy approaches will be discussed. Includes case studies from Asia, Africa, and Latin America.

440 Introduction to Econometrics (3)

Prerequisites: Business Admin 301, Economics 202, Info Sys/Decision Sci 361A or equivalent. Economic measurement: specification and estimation of econometric models; statistical methods in economic research.

441 Introduction to Mathematical Economics (3)

Prerequisites: Business Admin 301, Economics 202 and Math 135 or equivalent. Economic theory from microeconomics and macroeconomics. Content varies; constrained optimization problems and rational decision-making.

450 History of Economic Thought (3)

Prerequisites: Business Admin 301 and Economics 310 or 320. Major schools of thought and of leading individual economists as they influenced economic thought and policy.

461 Ecological Economics (3)

Prerequisites: Business Admin 301 and Economics 310 or 315 or equivalent. The application of economic concepts and methods to understanding the ways in which human economic behavior contributes to environmental and ecosystem degradation; the use of economic approaches to evaluate and manage these impacts; the design of sustainable economic policies.

462 Natural Resource Economics (3)

Prerequisites: Business Admin 301 and Economics 310 or 315 or equivalent. Concepts and principles in the application of economics to issues in natural resource economics. Issues will include uncertainty and risk in investment, depletion over time, cartelization, the role of technological innovation and government intervention related to fuels, water, land, etc.

495 Internship (1-3)

Prerequisites: Economics major with Business Admin 301, Info Sys/Decision Sci 361A, Economics 310 or 320 or the equivalents; or international business major with Economics 202 and 335, Info Sys/Decision Sci 361A or the equivalents; and consent of the department internship adviser, at least junior standing, 2.5 GPA and one semester in residence at the university. Planned and supervised work experience. May be repeated for a total of six units credit. Credit/No Credit grading only.

496 Student-to-Student Tutorial (1-3)

Prerequisites: Economics major or concentration, Business Admin 301, Economics 310 and 320, senior standing, 3.0 GPA and consent of department chair. Student learns through teaching (tutoring) other students enrolled in principles and intermediate economics courses. Consult "Student-to-Student Tutorials" in this catalog for more information. May not be used to satisfy the elective requirements for the major or concentration in business economics. Credit/No Credit grading only.

499 Independent Study (1-3)

Prerequisites: Economics major or concentration, Business Admin 301, Economics 310 and 320 or the equivalents, senior standing, and consent of department chair. Directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

502 Advanced Microeconomic Analysis (3)

Prerequisites: Economics 310 or equivalent and classified graduate status in Economics. An advanced treatment of rational decision-making behavior of consumers and firms, the price system, and resource allocation in partial and general equilibrium settings. Topics include preference theory, welfare economics, gains from trade, monopoly power, external costs and benefits, public goods, factor markets, intertemporal decisions, risk and uncertainty.

503 Advanced Macroeconomic Analysis (3)

Prerequisites: Economics 320 or equivalent and classified graduate status in Economics. The determination of employment, fluctuations of real and money income, and the forces underlying economic growth.

504 Econometric Analysis (3)

Prerequisites: Economics 440 or equivalent and classified graduate status in Economics. Contemporary methods used in econometric research with a focus or methods used in regression analysis, cross-section and panel data methods, and advanced topics of non-linear models, simulations and limited dependent variables.

505 Economic Models and Forecasting (3)

Prerequisites: Economics 440 and classified graduate status in economics. Statistical methods of econometric estimation and forecasting. Practical solutions to problems in model specification, estimation by regression, time series analysis and forecasting.

506 Economics of Aging (3)

(Same as Gerontology 506)

515 The Price System and Resource Allocation (3)

Prerequisites: Classified CBE status and Math 135 or the equivalent. Microeconomic analysis and policy under mixed capitalism. The economic environment and institutions, markets, consumer choice, production and resource allocation. Monopoly power and government intervention. (Not open to M.A. Economic candidates.)

516 Economics and Benefit-Cost Analysis (3)

Prerequisites: Economics 201 and classified graduate status in Economics, or Environmental Studies or Public Administration. Economics and benefit-cost analysis of public projects. Consumer demand and the estimation of benefits; the nature of cost in a market economy; price controls, unemployment and inflation; and criteria for choice, for multi-year projects. For elective credit in the M.S. Environmental Studies or Master of Public Administration.

521 Macroeconomic Theory and Policy (3)

Prerequisites: Economics 310 or 515 or equivalent and classified CBE status. National income determination and macroeconomic models. Inflation and unemployment. Monetary and fiscal policies. International trade and foreign exchange (Not open to M.A. Economics candidates or students with credit for Economics 320.)

531 International Economics (3)

Prerequisites: Economics 310 or 315 or 515 or equivalent and classified CBE status, and Economics 320 or 521. An introductory analysis of theories and current issues in international trade, finance, macroeconomics and growth, with an emphasis on business applications. (Not open to M.A. Economics candidates or students with credit for Economics 431.)

590 Topics in Economic Analysis and Policy (3)

Prerequisites: Economics 310 and 320 or equivalent; classified graduate status in Economics. Contemporary research in areas such as: resource economics; history of economic thought; international monetary systems; forecasting; economics of planning; human resource economics. May be repeated for credit.

595 Current Research in Economics (3)

Prerequisites: classified graduate status in Economics or Economics 440 and permission of the instructor. Students attend the departmental research seminar where faculty and outside speakers present papers dealing with recent and ongoing research. Students read material relevant to presentations and write analytical reports covering five seminar meetings.

598 Thesis Research (3)

Prerequisites: Economics 502, 503 and classified graduate status in Economics. Corequisite: Economics 505. Selection and approval of topic; outline; methodology; literature survey; data collection and analysis; presentation of results. Award of the grade is contingent upon the completion and acceptance of the thesis.

599 Independent Graduate Research (1-3)

Prerequisites: Economics 440, 502 and 503; classified graduate status; and consent of instructor and Department Chair (or designee). Directed advanced independent inquiry. May be repeated for credit. Not open to students on academic probation.