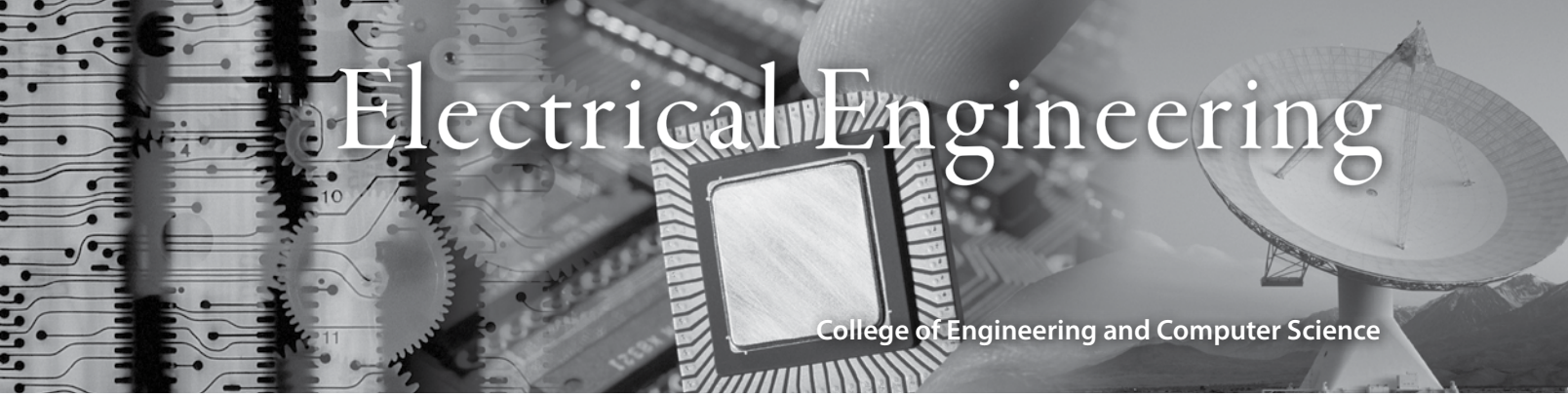
Academic Departments and Programs



Electrical Engineering

College of Engineering and Computer Science

INTRODUCTION

The Bachelor of Science degree in Electrical Engineering is accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410-347-7700. The electrical engineering program provides students with the knowledge of basic and advanced topics in the areas of design and analysis of VLSI and electronic circuits, design and analysis of computer architecture, microprocessors, communication systems, signal processing, and control systems. This program develops an ability to apply design and analysis knowledge to the practice of electrical engineering in an effective and professional manner. This knowledge can be applied to various engineering practices in aerospace, computer, electrical, electronics and other applied fields.

The Master of Science degree in Electrical Engineering provides advanced knowledge and competency in the theory and practice of electrical engineering. The program prepares students to pursue a wide range of professional engineering activities in the areas of communications systems/signal processing, computer engineering, control systems, electronics and circuit theory, and systems engineering.

The Electrical Engineering programs at CSUF provide the best qualities of teaching, scholarship and professional practice; and are committed to facilitate the education of engineering undergraduate and graduate students for their entrance in, and significant contribution to, the engineering profession. Our students are actively engaged and work in collaboration with faculty and staff to acquire and expand knowledge.

LEARNING GOALS AND STUDENT LEARNING OUTCOMES

The following learning goals and outcomes have been established for students pursuing a degree in Electrical Engineering:

Program Educational Objectives

A. Technical Growth – Graduates will be successful in modern engineering practice, integrate into the local and global workforce, and contribute to the economy of California and the nation

B. Professional Skills – Graduates will continue to demonstrate the professional skills necessary to be competent employees, assume leadership roles, and have career success and satisfaction

C. Professional Attitude and Citizenship – Graduates will become productive citizens with high ethical and professional standards, who make sound engineering or managerial decisions, and have enthusiasm for the profession and professional growth

Program Outcomes

(a) The ability to apply knowledge of mathematics, science and engineering

(b) The ability to design and conduct experiments, as well as to analyze and interpret data

DEPARTMENT CHAIR

Mostafa Shiva

DEPARTMENT OFFICE/WEBSITE

Engineering 100A
657-278-3013
http://www.fullerton.edu/ecs

PROGRAMS OFFERED

Bachelor of Science in Electrical Engineering
Master of Science in Electrical Engineering
Option in Systems Engineering

FACULTY

Maqsood Chaudhry, David Cheng, Joseph Costantine, George Cohn, Shahin Ghazanshahi, Mohinder Grewal, Karim Hamidian, Hassan Hamidi-Hashemi, Jidong Huang, Young Kwon, Mostafa Shiva, Fleur Tehrani, Raman Unnikrishnan

(c) The ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

(d) The ability to function on multi-disciplinary teams

(e) The ability to identify, formulate, and solve engineering problems

(f) An understanding of professional and ethical responsibility

(g) The ability to communicate effectively

(h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context

(i) Recognize the need for and an ability to engage in life-long learning

(j) Knowledge of contemporary issues

(k) The ability to use the techniques, skills and modern engineering tools necessary for engineering practice

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (129 UNITS)

The requirements for the B.S. in Electrical Engineering comprise three major segments: foundation courses in mathematics and the physical sciences; general education courses in the arts, humanities, social sciences, biological sciences and other related areas; and a sequence of courses to fulfill the requirements of the Electrical Engineering degree.

Students are required to meet with their academic adviser every semester during the first year and at least once a year thereafter.

Students are strongly encouraged to see their academic advisers frequently. All courses taken in fulfillment of the requirements for the bachelor's degree must be taken for a letter grade. MATH 150A must be completed with at least a "C" (2.0) grade. All other mathematics and physical science courses required for the degree must be completed with at least a "C-" (1.7) grade to count as credit towards the degree. Graduate courses are not open to undergraduate students without approval of the program coordinator.

2 + 2 Articulated Program with Community Colleges

The department has developed 2+2 articulation agreements with community colleges to provide students seamless transfer to the CSUF Electrical Engineering Program. This allows full-time students, taking the courses specified by the Electrical Engineering Department each semester, to graduate in two years following transfer to CSUF.

High School Preparation

Entering freshman preparation should include two years of algebra, geometry, trigonometry and one year of physics or chemistry. Students deficient in mathematics must take special preparatory courses, e.g., MATH 125, which will not carry credit for the major. (See Mathematics Section for Entry Level Mathematics test and Math-Science Qualifying Examination requirements.)

Transfer Students

Transfer students shall complete a minimum of 30 units in residence, at least 15 of which are in upper-division engineering courses. Work taken at another college or university with a "D" (1.0) may not be substituted for upper-division courses.

Mathematics and Science Courses (32)

MATH 150A Calculus (4)

MATH 150B Calculus (4)

MATH 250A Multivariate Calculus (4)

MATH 250B Introduction to Linear Algebra and Differential Equations (4)

CHEM 115 Introductory General Chemistry (4)

PHYS 225, 225L Fundamental Physics: Mechanics and Lab (4)

PHYS 226, 226L Fundamental Physics: Electricity and Magnetism and Lab (4)

PHYS 227, 227L Fundamental Physics: Waves, Optics, and Modern Physics and Lab (4)

General Education Courses

Area A: Core Competencies (9 units)

1. Oral Communication (3)

   HONR 101B, HCOM 100, 102

2. Written Communication (3)

   ENGL 101

3. Critical Thinking (3)

   HONR 101A, HCOM 235, PHIL 105, 106, PSYC 110, READ 290

Area B: Scientific Inquiry and Quantitative Reasoning (11 units)

1. Physical Science (3)

   PHYS 225

2. Life Science (3)

   BIOL 101

3. Laboratory Experience (1)

   PHYS 225L

4. Mathematics/Quantitative Reasoning (4)

   MATH 150A

Implications and Explorations in Mathematics and Natural Sciences

Not applicable for engineering majors

Area C: Arts and Humanities (12 units)

1. Introduction to Arts (3)

   ART 101, 201A, 201B, 311, 312, DANC 101, MUS 100, 101

2. Introduction to the Humanities (3)

   Any lower division course in this category listed in the current class schedule

3. Explorations in the Arts and Humanities (3)

   Any upper-division course in this category listed in the current class schedule

4. Origins of the World Civilizations (3)

   HIST 110A or 110B, 210A, 210B

Area D: Social Sciences (12 units)

1. Introduction to the Social Sciences (3)

   EGCP/EGCE/EGEE 401

2. World Civilizations and Cultures

   Not applicable for engineering majors

3. American History, Institutions and Values (3)

   AFRO 190, AMST 201, CHIC 190, HIST 180, 190, HONR 201A

4. American Government (3)

   HONR 201B, POSC 100

5. Explorations in Social Sciences (3)

   Any upper-division course in this category listed in the current class schedule

Area E: Lifelong Learning and Self Development (3 units)

Not applicable for engineering majors

Area Z: Cultural (3 units)

At least one star (*) course in Sections C.3 and D.5

Upper-Division Writing Requirement

In addition to the Examination in Writing Proficiency (EWP), all of the following courses are required to fulfill the upper-division English writing requirement:

EGEE 303L Electronics Laboratory (1)

EGEE 310L Electronic Circuits Laboratory (1)

EGEE 313L Power Laboratory (1)

EGEE 485 Electrical Engineering Design Projects Laboratory (3)
OR EGEE 407L Digital Computer Design Lab (3)

Written work for these courses must meet professional standards. All these courses must be passed with at least a "C" (2.0) grade.

Required Courses in Electrical Engineering (50 units)

CPSC 120 Introduction to Programming (3)

EGEE 215 Solving Engineering Problems using MATLAB (1)

EGEE 203 Electric Circuits (3)

EGEE 203L Electric Circuits Lab (1)

EGEE 245 Computer Logic and Architecture (3)

EGEE 245L Computer Logic and Architecture Lab (1)

EGEE 280 Microcontrollers (3)

EGEE 281 Designing with VHDL (2)

EGEE 303 Electronics (3)

EGEE 303L Electronics Lab (1)

EGEE 308 Engineering Analysis (3)

EGEE 309 Network Analysis (3)

EGEE 310 Electronic Circuits (3)

EGEE 310L Electronic Circuits Lab (1)

EGEE 311 Field Theory and Transmission Lines (3)

EGEE 313 Introduction to Electromechanics (3)

EGEE 313L Power Laboratory (1)

EGEE 323 Engineering Probability and Statistics (3)

EGEE 401 Engineering Economics and Professionalism (3)

EGEE 407L Digital Computer Design Lab (3)
OR EGEE 485 Electrical Engineering Design Projects (3)

EGEE 409 Introduction to Linear Systems (3)

Note: EGEE 203, 303, 303L, 310L, 313L, 485 and 407L must be passed with at least a "C" (2.0).

Technical Electives in Electrical Engineering (14 units)

Before enrolling in any elective course, approval of the adviser must be obtained. At least three units of design content must be included. EGEE 497 and 499 are elective courses; students must complete a study application form and submit it for approval to the supervising faculty member and the department chair prior to the semester in which the coursework is to begin.

VLSI and Electronic Circuits

EGEE 404, 404L, 410, 442, 445, 448, 455, 465

Communication Systems and Signal Processing

EGEE 404, 410, 420, 442, 443, 448, 480, 483, 483L

Control Systems

EGEE 404, 416, 420, 424, 425, 483

Computer Engineering

EGGN 403, 404, 404L, 406, 407, 407L, 412, 425, 445, 448, 455, 465

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING (30 UNITS)

To qualify for admission in conditionally classified standing, applicants must meet the following university and departmental requirements:

1. bachelor's degree from a regionally accredited institution;
2. bachelor's degree in an engineering program accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410- 347-7700;
3. good standing at the last institution attended; and
4. minimum cumulative GPA of 3.0. An undergraduate GPA of 2.5-2.99 will be considered for conditional admission (deficiency courses will be assigned by the adviser).

Students with grade deficiencies, degrees from non-ABET accredited universities or undergraduate majors other than Electrical Engineering may be considered for conditional admission. However, any deficiencies must be made up prior to advancing to classified standing and prior to beginning coursework for the master's degree. Requirements for fulfilling deficiencies include a minimum of six units of adviser-approved coursework. Deficiencies must be completed with minimum GPA of 3.0.

Each applicant file will be reviewed by the department graduate admissions adviser. Upon admission, the applicant is required to make an appointment with the graduate program coordinator. The program coordinator will assign a faculty adviser based on the student's areas of interest and career objectives.

Classified Standing

A student who meets the above requirements for admission to conditionally classified standing may be granted classified standing contingent upon:

1. completion of all required deficiency coursework;
2. fulfillment of the university writing requirement. Students with degrees from American universities must show proof of meeting an upper-division writing requirement, pass the EWP, or complete ENGL 301 or 360. Students who have degrees from foreign universities must pass the Examination in Writing Proficiency (EWP) or complete ENGL 301 or 360 with a grade of "C" (2.0) or better. Also refer to the Admission Requirements section of this catalog for additional international student requirements; and
3. development and approval of a study plan prior to completing nine units toward the 30-unit degree requirement.

Students must meet with a faculty adviser to set up a study plan. Classification is not granted until the study plan is approved by the faculty adviser, the department chair, and the Office of Graduate Studies. Any subsequent changes to the study plan must have prior written approval by the faculty adviser and department chair.

Study Plan

The study plan consists of adviser-approved upper-division and graduate-level coursework that must be completed with an overall grade-point average of 3.0 or better. At least half the units required for the degree must be approved graduate (500-level) courses. Each course must be passed with a minimum grade of "C" (2.0).

Required Mathematics Courses (6 units)

EGGN 403 Computer Methods in Numerical Analysis (3)

EGEE 580 Analysis of Random Signals (3)

Note: If one of the above courses has been completed, EGEE 518 will satisfy the requirement

Concentration Courses (15 units)

A student is required to select a minimum of 15 units in Electrical Engineering. These units may be 400- and 500-level courses and are selected according to the student's area of interest. Coursework may focus on the following areas: Communications Systems/ Signal Processing, Computer Engineering, Control Systems, Microelectronics and Circuit Theory, and Systems Engineering. Graduate Project, EGEE 597 (1-3), and Thesis, EGEE 598 (1-6), are considered concentration courses.

Other Courses (9 units)

Elective units should be taken in Electrical Engineering or a related engineering field and are subject to adviser approval.

Exam/Thesis/Project Option

Subject to approval by the faculty adviser, students may select one of the following options for final review by the department graduate committee:

1. satisfactory completion of a final oral comprehensive examination on coursework; OR
2. satisfactory completion of a formal project EGEE 597 (3 units) and a final oral comprehensive examination on coursework; OR
3. satisfactory completion and oral defense of a thesis EGEE 598 (3-6 units).

Guidelines for the preparation of theses and formal reports are available in the Electrical Engineering Department office and the university Graduate Studies office.

Students requesting Graduate Project (EGEE 597), Thesis (EGEE 598) or Independent Study (EGEE 599) must complete a study application form and submit it for approval to the supervising faculty member and department chair prior to the semester in which the coursework is to begin.

Advancement to Candidacy

Advancement to candidacy requires that the student file a graduation check prior to the beginning of the final semester (see class schedule for deadlines). Completion of requirements for the degree include a minimum GPA of 3.0 on all study plan coursework, successful completion of a comprehensive examination or oral defense of a thesis or project, and recommendation by the Electrical Engineering faculty and Office of Graduate Studies.

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING OPTION IN SYSTEMS ENGINEERING

Students seeking this option must meet the same requirements as the program in Electrical Engineering. In addition, students are required to include the following courses in their study plans:

EGEE 580 Analysis of Random Signals (3)

EGEE 581 Theory of Linear Systems (3)

EGEE 582 Linear Estimation Theory (3)

EGEE 585 Optimization Techniques in Systems Engineering (3)

EGEE 587 Operational Analysis Techniques in Systems Engineering (3)

The remainder of the systems engineering study plan includes other engineering courses with an emphasis in a particular field, such as information systems, control theory, computer systems, civil or

mechanical engineering applications. Students with a Bachelor of Science in Engineering may elect to include up to nine units from approved subjects offered by the Mihaylo College of Business Administration and Economics as a part of their study plan.

ELECTRICAL ENGINEERING COURSES

Courses are designated as EGEE in the class schedule.

203 Electric Circuits (3)

Prerequisites: PHYS 226; MATH 250A; corequisite: CPSC 120 or EGME 205. Units; Ohm's and Kirchhoff's laws; mesh and nodal analysis, superposition; Thevenin and Norton theorems; RL and RC transients; phasors and steady state sinusoidal analysis; response as a function of frequency; current, voltage, and power relationships; polyphase circuits.

203L Electric Circuits Laboratory (1)

Pre- or corequisite: EGEE 203. Simple resistive RL and RC circuits, electrical measurement techniques, verification of basic circuit laws through hard-wired breadboarding and CAD circuit simulation. (3 hours laboratory)

215 Solving Engineering Problems Using MATLAB (3)

Prerequisite: CPSC 120. Formulating, solving, verifying and reporting engineering problems such as control, signal processing, and communication systems and engineering, math, and physics problems such as engineering/scientific computations and operations research using the MATLAB/SIMULINK program. (3 hours laboratory)

245 Computer Logic and Architecture (3)

Prerequisite: CPSC 120. Logic design and organization of the major components of a computer, analysis and synthesis of combinational and sequential logics, analysis of the arithmetic, memory control and I/O units, concepts in computer control.

245L Computer Logic and Architecture Lab (1)

Pre- or corequisite: EGEE 245. Computer-Aided Design (CAD) of digital logic circuits, including decoders, multiplexes, adders and subtracters, counters, shift registers and Arithmetic Logic Unit (ALU) of a computer. After verifying the CAD design through simulation, the circuits are built on a protoboard. (3 hours laboratory)

280 Microcontrollers (3)

(Same as EGCP 280)

281 Designing with VHDL (2)

(Same as EGCP 281)

303 Electronics (3)

Prerequisites: PHYS 227 and EGEE 203. Characteristics and elementary applications of semiconductor diodes, field-effect transistors and bipolar-junction transistors, and operational amplifiers; mid-frequency small-signal analysis and design of transistors.

303L Electronics Laboratory (1)

Prerequisites: EGEE 203L and ENGL 101. Corequisite: EGEE 303. Semiconductor diodes, transistors and elementary electronic circuits through hard-wired breadboarding, CAD electronic simulation and analysis. (3 hours laboratory)

308 Engineering Analysis (3)

(Same as EGCE/EGME 308)

309 Network Analysis (3)

Prerequisites: EGEE 203 and EGGN 308. Pre- or corequisite: EGEE 203L. Performance of RLC circuits; complex frequency and the s-plane; frequency response and resonance; network topology; two-port network characterization; classical filter theory.

310 Electronic Circuits (3)

Prerequisites: EGEE 303 and 309. Continuation of 303, analysis and design of multistage and feedback amplifiers; frequency characteristics of amplifiers, frequency characteristics and stability of feedback amplifiers, differential amplifiers, design of IC circuit biasing, operational amplifiers and their applications.

310L Electronic Circuits Lab (1)

Prerequisite: EGEE 303L. Pre- or corequisite: EGEE 310. Computer-Aided Design (CAD) of electronic circuits, including multi-stage feedback amplifiers; linear and integrated circuits; ADC and DAC and wireless design projects. After verifying the CAD design through simulation, the circuits are built on a protoboard. (3 hours laboratory)

311 Field Theory and Transmission Lines (3)

Prerequisites: EGEE 203, PHYS 226, MATH 250B. Introduction to waves and phasors; analysis and design of transmission lines; electrostatics and magnetostatics; boundary value problems; Maxwell equations.

313 Introduction to Electromechanics (3)

Prerequisites: EGEE 309 and 311. Electromagnetic fields and circuits; transformers, saturation effects. Simple electro-mechanical systems. Circuit models, terminal characteristics and applications of DC and AC machines.

313L Power Laboratory (1)

Prerequisite: EGEE 303L. Pre- or corequisite: EGEE 313. Experiments in electromagnetic fields and circuits, transformers and electromechanical systems such as AC and DC machines (3 hours laboratory)

323 Engineering Probability and Statistics (3)

Prerequisite: MATH 250A or 270B. Set theory: axiomatic foundation of probability; random variables; probability distribution and density functions; joint, conditional and marginal distributions; expected values; distribution of functions of random variables; central limit theorem; estimation.

401 Engineering Economics and Professionalism (3)

Prerequisites: MATH 150A and junior or senior standing in Engineering. Development, evaluation and presentation of design alternatives for engineering systems and projects using principles of engineering economy and cost benefit analysis. Engineering profession, professional ethics and related topics. (Not available for use on graduate study plans.) (Same as Civil Eng 401/Computer Eng 401)

404 Introduction to Microprocessors and Microcomputers (3)

Prerequisites: EGEE 245L and 280. Hardware and software concepts in microprocessors, processor family chips, system architecture, CPU, input/output devices, interrupts and DMA, memory (ROM, RAM), electrical and timing characteristics, assembly language programming.

404L Microprocessor Laboratory (1)

Prerequisite: EGEE 245L. Pre- or corequisite: EGEE 404. I/O interfacing with a microprocessor system; familiarization with the operating system, assembler, debugger and emulator; design of keyboard, LCO display, RS 232, D/A converter, A/D converter and floppy disk interfaces. (3 hours laboratory)

406 Design Applications with Microcontroller and FPGA (3)

Prerequisites: EGEE 245, 245L and 280. Digital system application design using microcontrollers, FPGAs and CPLDs including programming hardware interfacing, A/D conversion, CLB, logic arrays, interconnections, testing and simulations

407 Digital Computer Architecture and Design I (3)

Prerequisites: EGEE 245L and 280. Organization and design of major components of a digital computer, including arithmetic, memory, input, output and control units. Integration of units into a system and simulation by a computer design language.

407L Digital Computer Design Laboratory (3)

Prerequisites: EGEE 245, 303L, and 407. Design and implementation of a small digital computer; adders, arithmetic unit, control unit, memory control unit, memory unit and program unit. May be taken in lieu of EGEE 485. (1 hour lecture, 6 hours laboratory).

409 Introduction to Linear Systems (3)

Prerequisite: EGEE 309. Development of time and frequency domain models for physical systems. Linearization process and representation with block diagrams and signal flow graphs; discrete-time systems and digital signals including use of Z-transforms; stability theory of continuous and discrete time systems.

410 Electro-Optical Systems (3)

Prerequisite: EGEE 311. Introduction to electro-optics; optical radiation characteristics and sources; geometrical and physical optics; lasers and electro-optical modulation; quantum and thermal optical radiation detectors; detector performance analysis; electro-optical systems modeling and analysis; application examples.

412 Digital Computer Architecture and Design II (3)

Prerequisite: EGEE 307. Modern architectures of computer systems, their CPU structure, memory hierarchies and I/O processors; conventional and microprogrammed control; high-speed and pipelined ALU; cache, virtual and interleaved memories, DMA, interrupts and priority.

416 Feedback Control Systems (3)

Prerequisite: EGEE 409. Feedback control system characteristics; stability in the frequency and time domains; analysis and design of continuous-time systems using root-locus, Bode and Nyquist plots, Nichols chart and applications.

420 Introduction to Digital Filtering (3)

Prerequisite: EGEE 409. Discrete-time signals and systems; solution of difference equations; Fourier transform for a sequence; Z-transform; discrete Fourier transform; FIR and IIR realizations; design of digital filters.

424 Computer Simulation of Continuous Systems (3)

Prerequisites: CPSC 120; EGEE 215 and 308. Using digital computer for simulation of physical systems modeled by ordinary differential equations; problem formulation, in-depth analysis of two integration methods, and the use of a general purpose system simulation program such as CSSL.

425 Introduction to Systems Engineering (3)

Prerequisites: EGEE 245, EGEE 323, or Computer Science 240 and MATH 338 for Computer Science majors. Introduction to systems engineering analysis and the systems approach; introduction to modeling, optimization, design and control; systems requirements analysis; analytical and computational solution methods; information processing; integrated systems.

430 Fuzzy Logic and Control (3)

Prerequisite: EGEE 409. Fuzzy logic and systems; comparison of classical sets, relations and operators with fuzzy sets, relations and operators; fuzzy arithmetic and transformations; classical predicate logic and reasoning versus fuzzy logic and approximate reasoning. Applications to rule-based systems and control systems.

442 Electronic Circuits (3)

Prerequisite: EGEE 310. Power amplifiers and tuned amplifiers; RF amplifiers; modulation and detection circuits; oscillators; and operational amplifier applications.

443 Electronic Communication Systems (3)

Prerequisites: EGEE 310 and 323 or equivalent. Principles of amplitude, angular and pulse modulation, representative communication systems, the effects of noise on system performance.

445 Digital Electronics (3)

Prerequisites: EGEE 245 and 303. RC circuits, attenuators, compensation and scope probe. Logic circuits: DTL, TTL, STTL, LSTTL and ECL. Fanout, noise-immunity, switching speed, power consumption, input-output characteristics. Design and analysis of MOS logic circuits; PMOS, NMOS and CMOS gates, flip-flops, shift registers and memory circuits.

448 Digital Systems Design with FPGA (3)

Prerequisites: EGEE 245, 281 and 303. Basic concepts and characteristics of digital systems, traditional logic design, LSI/VLSI logic design with VHDL, combinational and sequential logic, and their applications; timing and control, race conditions and noise, microcomputers, computer-aided programming, development systems, microcomputer system hardware design, input/output devices.

455 Microelectronics and Nano Devices (3)

Prerequisites: EGEE 303 and 311. Quantum mechanical principles, crystal structure, energy brand, carrier transport, carrier generation and recombination, p-n junction, bipolar transistor, MOSFET, MEFET and related devices, basic microwave and opto-electronic technology, crystal growth and fabrication, introduction to nano structure, nano devices and technology.

456 Introduction to Logic Design in Nanotechnology (3)

(Same as EGCP 456)

460 Introduction to Cellular Mobile Communications Systems (3)

Prerequisite: EGEE 443. Introduction to wireless mobile telecommunications, description and analysis of cellular radio systems, co-channel interference reduction, channel capacity and digital cellular systems

465 Introduction to VLSI Design (3)

Prerequisites: EGEE 245 and 303. Computer-aided design of VLSI circuits. MOS device structure, design rules, layout examples, CMOS standard cells. Speed power trade off, scaling, device and circuit simulation. VLSI design software tools. Routing method system design, Design Project. Chip fabrication through MOSIS service, testing.

480 Optical Engineering and Communications (3)

Prerequisites: EGEE 311 and PHYS 227. Optics review, lightwave fundamentals, integrated optic waveguides, first design of fiber optic system, analog and digital modulation, digital fiber optic system design, baseband coding, digital video transmission in optical fiber, optical emitters and receivers, coherent optical communication, measurements in fiber optic telecommunication

483 Introduction to Global Positioning Systems (GPS) (3)

Corequisite: EGEE 409 or EGCP 371. Description of Global Positioning Systems (GPS) and Differential Global Positioning Systems (DGPS), GPS navigation, errors. Satellite signals and co-ordinate transform math. Modeling for position and velocity. Application to navigation.

483L Global Positioning System Lab (2)

Corequisite: EGEE 483. Use and description of Novatel, Magelon, Ahstek, Collins and Tribel receivers. Computation of GPS and GEO stationary satellite positions from ephemeris data available on almanac. Errors such as selective availability, ionospheric, tropospheric, satellite ad receiver will be calculated and compensated in the data. (1 hour lecture, 3 hours laboratory)

485 Electrical Engineering Design Projects Laboratory (3)

Prerequisites: EGEE 280, 310L and 323. Practical aspects of design and project construction. Instructor-approved design project in electrical engineering, inter-disciplinary projects. Use of CAD program for schematic capture and simulation. Construction of final hardware according to the design specification. Performance evaluation and demonstration of project. (1 hour lecture, 6 hours laboratory).

497 Senior Project (1-3)

Prerequisites: consent of adviser and instructor. Directed independent design project.

499 Independent Study (1-3)

Prerequisite: approval of study plan by adviser. Specialized topics in engineering selected in consultation with and completed under the supervision of the instructor. May be repeated for credit.

503 Information Theory and Coding (3)

Prerequisite: EGEE 323. Information measures, probabilistic studies of the transmission and encoding of information, Shannon's fundamental theorems, coding for noisy channels.

504A Linear Network Synthesis (3)

Prerequisite: EGEE 310. Synthesis of passive element driving-point and transfer-functions with emphasis on RC networks. Basic operational amplifier RC circuits and their performance limitations, introduction to second-order RC active filters. Parameter sensitivity analysis.

507 Detection Theory (3)

Prerequisite: EGEE 580. Formulation of decision rules for the detection of signals in a noisy environment, optimum receivers. Estimation of parameters of detected signals. Estimation theory.

510 Optics and Electromagnetics in Communications (3)

Prerequisite: EGEE 480. Plane-wave propagation and reflection from multiple layers; two- and three-dimensional boundary value problems; waveguides and resonant cavities; radiation from apertures and antennas; electromagnetic properties of materials, gases and plasmas; significant coverage of engineering applications.

518 Digital Signal Processing (3)

Prerequisite: EGEE 420. Discrete Fourier transform; fast Fourier transform; Chirp Z-transform; discrete time random signals; floating-point arithmetic; quantization; finite word length effect in digital filters; spectral analysis and power spectrum estimation.

519A Parallel and Multiprocessing Systems (3)

Prerequisite: EGEE 412. Parallel and multiprocessing systems, including hypercubes, shared distributive memory architectures, array and pipelines processors, communication protocols, routing algorithms and hands-on parallel programming experience on CSUF Hypercube System.

519B Computer Networks and the Internet (3)

Prerequisite: EGEE 419. Computer networking with LAN, WAN to the Internet including ATM, Ethernet, wireless and Bluetooth technology, design of communication protocols, transmission media, security and control.

522 Spread Spectrum Communications (3)

Prerequisites: EGEE 443 and 580. Introduction to Spread Spectrum (SS) Systems. Performance analysis of coherent digital signaling schemes. Synchronization. Direct sequence, frequency hopping, time hopping and Hybrid Spread Spectrum Modulations. Binary shift register sequences. Code tracking loops. Performance of SS systems in a jamming environment, with forward error correction.

523A VLSI and Nano Technology and Devices (3)

Prerequisite: EGEE 455 or equivalent. Silicon crystal, PN junction physics, oxide and interface physics, wafer fabrication technology; oxidation, diffusion, ion-implantation, epitaxy, photolithography, thin films process. Layout design principle for integrated circuits. Nano-electronic devices and technology.

523B CMOS VLSI Design (3)

Prerequisites: EGEE 465 and EGEE 448 or equivalent. Surface physics of MOS system, MOS device physics. Short channel effect; hot carrier effect, subthreshold conduction. CMOS fabrication process. Layout design rules. Scaling design and analysis of CMOS circuits. Standard cell method. CAD design and SPICE simulation.

526 Digital Control Systems (3)

Prerequisite: EGEE 416. Analysis, design and implementation of digital control systems; Z-transform methods; frequency domain and state-space approach for discrete-time systems.

527 Fault Diagnosis and Fault-Tolerant Design (3)

Prerequisite: EGEE 307. Fault diagnosis and fault-tolerant design of digital systems; fault diagnosis test for combinational and sequential circuits, reliability calculations, multiple hardware redundancy, error detection and correcting codes, software redundancy and fault-tolerant computing.

529 Principles of Neural Systems (3)

Prerequisites: EGEE 310 and 409. Principles of neural systems and their hardware implementation. Basic properties, discrete and continuous bidirectional associative memories. Temporal associative memories. Neural nets classifiers, perceptrons, supervised and unsupervised learning. Forward and backward propagation. Electrical models of neural networks using op-amp., analog VLSI.

531 Phase-Locked and Frequency Feedback Systems (3)

Prerequisite: EGEE 580 or consent of instructor. Theory of noise and linear systems, FM feedback principles. Theory and design of phase-locked loops and their applications in communication and control.

537 Satellite Communications (3)

Prerequisite: EGEE 443. Satellite systems, link analysis, propagation effects, SNR/CNR calculations, modulation schemes, TDMA, FDMA, CDMA techniques.

557 Microprogramming and Embedded Microprocessors (3)

Prerequisites: EGEE 412 and EGEE 448. Introduction to microprogramming concepts and applications to the control unit of a computer, microprogrammable control, arithmetic-logic unit, implementation of an embedded process on FPGA and interfacing with external memories.

558A Microprocessors and System Applications I (3)

Prerequisites: EGEE 404 and 404L. Microprocessors and micro-computers, their related software systems, system design with microprocessors, applications in peripheral controllers, communication devices and multiprocessing systems.

558B Microprocessors and Systems Applications II (3)

Prerequisite: EGEE 558A. Advanced microprocessor architecture and their applications to microcomputer networking; RISC VS CISC architectures, communication protocol, distributed-operating system, and local area networks.

559 Introduction to Robotics (3)

Prerequisite: EGEE 416 or consent of instructor. Science of robotics from an electrical engineering standpoint, including modeling, task planning, control, sensing and robot intelligence.

580 Analysis of Random Signals (3)

Prerequisites: EGEE 323 and 409 or equivalent. Random processes pertinent to communications, controls and other physical applications, Markov sequences and processes, the orthogonality principle.

581 Theory of Linear Systems (3)

Prerequisites: EGEE 416 and EGGN 403. State space analysis, linear spaces, stability of systems; numerical methods of linear systems analysis and design.

582 Linear Estimation Theory (3)

Prerequisites: EGEE 580 and 581. Mathematical models of continuous-time and discrete-time stochastic processes; the Kalman filter, smoothing and suboptimal filtering computational studies.

585 Optimization Techniques in Systems Engineering (3)

Prerequisite: EGGN 403 or MATH 340 for Computer Science majors. Calculus of variations, optimization of functions of several variables, Lagrange multipliers, gradient techniques, linear programming, and the simplex method, nonlinear and dynamic programming.

587 Operational Analysis Techniques in Systems Engineering (3)

Prerequisite: EGEE 323 or MATH 338 for Computer Science majors. Operational research models; applications of probability theory to reliability, quality control, waiting line theory, Markov chains; Monte Carlo methods.

597 Project (1-3)

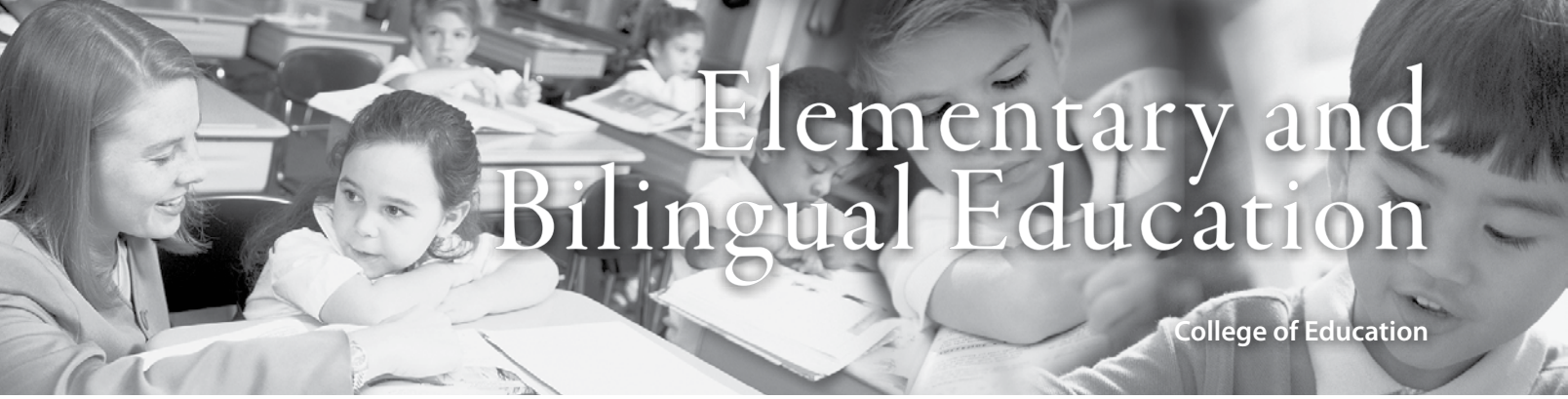
Prerequisite: consent of adviser. Classified graduate students only. Unless approved by the department chair, EGEE 597 cannot be taken if EGEE 598 or 599 is already taken.

598 Thesis (1-6)

Prerequisite: consent of adviser. Classified graduate students only. Unless approved by the department chair, EGEE 598 cannot be taken if EGEE 597 is already taken.

599 Independent Graduate Research (1-3)

Prerequisite: consent of adviser. May be repeated for credit. Unless approved by the department chair, EGEE 599 cannot be taken if EGEE 597 is already taken.



Elementary and Bilingual Education

College of Education

DEPARTMENT CHAIR

Lisa Kirtman

DEPARTMENT OFFICE/WEBSITE

Education Classroom Building 324
657-278-4731
http://ed.fullerton.edu/edel

PROGRAMS OFFERED

Master of Science in Education
- Concentrations:
  - Bilingual/Bicultural Education (Spanish-English)
  - Educational Technology
  - Elementary Curriculum and Instruction

Teacher Credential Programs
- Program for the Multiple Subject (Elementary) Credential
- Program for the Multiple Subject Credential with a Bilingual Authorization (formerly BCLAD)
- Combined Multiple Subject Credential and Master of Science in Education

Computing Certificate

FACULTY

Donna Bennett, Kim Case, Sharon Chappell, Amy Cox-Petersen, Teresa Crawford, Mildred Donoghue, Loretta Donovan, Barbara Finnell, Ana Garza-Dargatz, Tim Green, Andrea Guillaume, Pablo Jasis, Lisa Kirtman, Christine Mayfield, Kathy Murphy, Kim Norman, Terri Patchen, Nawang Phuntsog, Jennifer Ponder, Kristine Quinn, Christine Valenciana, Michelle VanderVeldt, Evelyn Weisman, Lisa Winstead, Ruth Yopp-Edwards, Hallie Yopp Slowik

INTRODUCTION

The Department of Elementary and Bilingual Education at Cal State Fullerton provides exemplary preparation for candidates dedicated to improving teaching and learning for all children. The faculty members in the department are nationally recognized for their contributions to the field of education. Moreover, the Department of Elementary and Bilingual Education provides programs that are nationally accredited (NCATE), in addition to meeting the California Commission on Teacher Credentialing (CCTC) requirements. The Department is highly regarded as a leader in education whose candidates are well-prepared to act as change agents for the future.

The department offers teacher credential and master's programs in a variety of areas, both face to face and online.

The university mission, college philosophy and department theme emphasize the active social nature of learning, the interconnection among ways of learning, the dispositions of inquiry and the relationship to the larger diverse society. The department is strongly committed to these themes and dispositions.

LEARNING GOALS AND STUDENT LEARNING OUTCOMES

The following goals and learning outcomes have been established for students pursuing a degree in elementary and bilingual education:

Knowledgeable and competent specialists

- Demonstrate a strong foundation in subject matter knowledge or field of study
- Demonstrate a strong understanding and implementation of pedagogical skills or skills in chosen field
- Use technology as a resource

Reflective and responsive practitioners

- Promote diversity
- Make informed decisions
- Engage in collaborative endeavors
- Think critically

Committed and caring professionals

- Be agents for change
- Maintain professional and ethical standards
- Become lifelong learners

Application Deadlines

The deadlines for completing online applications to credential programs are Feb. 28 for the fall semester and Sept. 30 for the spring semester (see http://www.csumentor.edu).

Mailed applications need to be postmarked by the same deadlines. However, deadlines may be changed based upon enrollment projections. For master's programs, check the CSU Mentor website and the department office for initial filing and cutoff dates.

THE PROFESSIONAL TEACHER PREPARATION PROGRAM FOR THE MULTIPLE SUBJECT (ELEMENTARY) CREDENTIAL PROGRAM

The Professional Teacher Preparation Program for the Multiple Subject (Elementary) Credential prepares individuals to teach in self-contained classrooms at the K-12 grade level where multiple subjects are taught. Candidates may select a two- or three-semester credential program sequence. The Department also offers a Bilingual Authorization (formerly BCLAD) option in Spanish. Applicants to the credential program must hold a bachelor's degree or have completed their general education and major requirements. Applicants must pass the CSET before entering the program. For more information: http://ed.fullerton.edu/edel/BCLAD.html.

Freshmen may opt to simultaneously pursue an undergraduate major and a teaching credential through the Streamlined Teacher Education Program (STEP), which leads to a Multiple Subject Credential or to a basic Education Specialist Credential. The section on Teaching Credentials in this catalog contains more information on STEP.

California law requires an academic major; there is no major in education. Students who opt for STEP select a Liberal Studies or Child and Adolescent Development major. Students who opt for the fifth-year Multiple Subject Credential Program devote their first three or four years of work to completing requirements for the baccalaureate degree with an academic major. Students are encouraged to attend a program overview during the junior and senior year. Overview schedules may be obtained through the Office of Admissions to Teacher Education. For more information about STEP contact the Center for Careers in Teaching in Humanities 113 or by phone at 657-278-7130.

Two-Semester Program Sequence

The Multiple Subject Credential Program two-semester sequence is as follows:

First Semester

EDEL 430 Foundations in Elementary School Teaching (3)

EDEL 433 Language Arts and Reading Instruction in the Public Schools (3)

EDEL 434 Methods and Inquiry for Teaching English Learners (2)

EDEL 435 Mathematics Curriculum and Instruction in Elementary School Teaching (2)

EDEL 438 Supervised Fieldwork in Elementary Teacher Education (2)

EDEL 439 Student Teaching in the Elementary School (5)

EDEL 450 Visual and Performing Arts Methods: Art, Dance, Drama and Music (1)

EDEL 453 Teaching Performance Assessment Support (1)

Second Semester

EDEL 429 Integrated Curriculum and Instruction in the Elementary School (3)

EDEL 436 Science Curriculum and Instruction in Elementary School Teaching (2)

EDEL 437 Social Studies Curriculum and Instruction in Elementary School Teaching (2)

EDEL 439 Student Teaching in the Elementary School (9)

EDEL 451 Community, School and Classroom Issues (1)

EDEL 452 P.E., Health and Mainstreaming Education (1)

EDEL 453 Teaching Performance Assessment Support (1)

Three-Semester Credential Program Sequence

The three-semester program is for individuals who wish to take classes during evenings and Saturdays, with limited though required daytime involvement in elementary schools. Student teaching requires a full daytime commitment.

First Semester

EDEL 430 Foundations in Elementary School Teaching (3)

EDEL 433 Language Arts and Reading Instruction in the Public Schools (3)

EDEL 434 Methods and Inquiry for Teaching English Learners (2)

EDEL 435 Mathematics Curriculum and Instruction in Elementary School Teaching (2)

EDEL 438 Supervised Fieldwork in Elementary Teacher Education (1)

EDEL 453 Teaching Performance Assessment Support (1)

Second Semester

EDEL 429 Integrated Curriculum and Instruction in the Elementary School (3)

EDEL 436 Science Curriculum and Instruction in Elementary School Teaching (2)

EDEL 438 Supervised Fieldwork in Elementary Teacher Education (1)

EDEL 439 Student Teaching in Elementary School (5)

EDEL 450 Visual and Performing Arts Methods: Art, Dance, Drama and Music (1)

EDEL 452 P.E., Health and Mainstreaming Education (1)

Third Semester

EDEL 437 Social Studies Curriculum and Instruction in Elementary School Teaching (2)

EDEL 439 Student Teaching in the Elementary School (9)

EDEL 451 Community, School and Classroom Issues (1)

EDEL 453 Teaching Performance Assessment Support (1)

Combined Credential/Masters Program

The Combined Credential/Masters program is a full-time, 16-month program completed in four semesters, including summer. It includes online courses. Visit http://ed.fullerton.edu/EDEL/combined.html for details.

Bilingual Authorization (formerly BCLAD)

A Multiple Subject Credential with a bilingual-bicultural (Spanish-English) emphasis is available. Contact Dr. Jennifer Ponder (jponder@fullerton.edu) for more information about these programs.

Admission Procedures and Criteria

Admission to the university does not include admission to the Multiple Subject Credential Program. Students must apply for admission to the Multiple Subject Credential Program the semester prior to anticipated enrollment in the program. Filing deadlines are Feb. 28 (to begin the program the following fall) and Sept. 30 (to begin the program the following spring). Check the website for details and application procedures: http://ed.fullerton.edu/EDEL/MSCP.html. Students must also apply to the university.

Applicants for admission into the Multiple Subject Credential Program are evaluated at several transition points measuring candidates' progress toward meeting program outcomes as outlined in the College of Education's conceptual framework. Specifically, these include knowledge (scholarship, breadth of understanding), skills (professional aptitude, physical and mental fitness) and dispositions (character). Evidence related to these criteria that is assessed at time of application includes:

- Overall grade point average at least 2.75 (3.0 for combined program) for the last 60 units
- Passage of the California Subject Examination for Teachers (CSET)
- Completion of the California Basic Education Skills Test (CBEST) and passage of the written portion of this test
- Satisfactory completion of prerequisite courses
- Recommendations from academic faculty, school personnel and/or other appropriate persons
- Autobiography
- Interview with Education Faculty members

Program faculty and staff also conduct informal assessments of applicants' suitability for teaching throughout prerequisite courses and the application process. Further evidence is provided subsequent to application when opportunity is provided for verification of tuberculosis screening and certificate of clearance that verifies the absence of a criminal record.

Details concerning admission procedures and criteria are available in the Office of Admission to Teacher Education in CP-540.

Program Continuation

Once admitted, continuation in the program is based on continuous and satisfactory progress as assessed at specific transition points throughout the program, including passage of the California Teaching Performance Assessments (TPA).

Application for Teaching Credentials

Upon completion of a multiple subject credential program the credential candidate must submit an application to the Commission on Teacher Credentialing through the CSUF credential analyst and verify passage of the Reading Instruction Competence Assessment (RICA). The credential analyst is located in the Credential Preparation Center in College Park 740. Additional information on the credential application process is available in the Credential Preparation Center.

MASTER OF SCIENCE IN EDUCATION (30 UNITS)

Admission to Graduate Standing – Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 3.0 in the last 60 semester units attempted.

BILINGUAL/BICULTURAL EDUCATION CONCENTRATION

Graduate Standing – Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing:

- Development of an approved study plan
- Basic teaching credential or equivalent experience;
- Approved major (minimum of 24 units upper division or graduate)
- 3.0 grade-point average on previous academic and related work
- Language competence (English and Spanish) as determined by satisfactory interviews or coursework
- Completion of SPAN 466

Credit will be given for previous postbaccalaureate studies when possible. Otherwise, well-qualified students may be admitted with limited subject or grade deficiencies, but these deficiencies must be removed.

Core Coursework (9 units)

EDEL 500 Culture and Curriculum (3)

EDEL 511 Survey of Educational Research (3)

EDEL 541 Psychological and Sociological Foundations of Bilingual-Bicultural Education (3)

Concentration Courses (18 units)

EDEL 542 Current Issues and Problems in Bilingual-Bicultural Education (3)

CHIC 450 The Chicano and Temporary Issues (3)

CHIC 480 The Immigrant and the Chicano (3)

One of the following:

TESL 509, 510

One of the following:

TESL 527, 595

Elective (3 units)

Chosen in consultation with and approved by the graduate adviser.

Culminating Experience (3 units)

EDEL 594, 597, 598

For further information consult the graduate program adviser.

EDUCATIONAL TECHNOLOGY CONCENTRATION

An online option is available for the Concentration in Educational Technology.

Graduate Standing – Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing:

- Development of an approved study plan
- Basic teaching credential or equivalent experience
- Approved major (minimum of 24 units upper division or graduate)
- 3.0 grade-point average on previous academic and related work

Credit will be given for previous post baccalaureate studies when possible. Otherwise well-qualified students may be admitted with limited subject or grade deficiencies, but these deficiencies must be removed.

Core Classes (9 units)

EDEL 511 Survey of Educational Research (3)

EDEL 529 Learning Theory for Classroom Use (3)

EDEL 536 Curriculum Theory and Development (3)

Concentration Courses (18 units)

EDEL 512 Level Two Technology Proficiencies for Teachers in K-8 Schools (3)
OR EDEL 523 Distance Education Issues and Trends in Schools (3)

EDEL 515 Technology and Problem Solving in Schools (3)

EDEL 518A Issues in the Instructional Design of Software for Use in Schools (3)

EDEL 518B Multimedia Development and Instruction in the Classroom (3)

EDEL 522 Web Design for Instruction in Schools (3)

EDEL 590 Technology Professional Development in Schools (3)

Culminating Experience (3 units)

EDEL 594, 597, 598

ELEMENTARY CURRICULUM AND INSTRUCTION CONCENTRATION

The Concentration in Elementary Curriculum and Instruction helps career classroom teachers prepare for curriculum and instructional leadership in one or more of the following areas: elementary classroom teaching; technology in education; meeting the needs of diverse learners; early childhood education; math/science education; professional inquiry; and staff development in public and private schools. Students may follow the study plan for the concentration, or elect to specialize in one of six emphasis areas, below. Online option available.

Graduate Standing – Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing:

- Development of an approved study plan
- Basic teaching credential or equivalent experience
- Approved major (minimum of 24 units upper division or graduate)
- 3.0 grade-point average on previous academic and related work

Credit will be given for previous post baccalaureate studies when possible. Otherwise well-qualified students may be admitted with limited subject or grade deficiencies, but these deficiencies must be removed.

Core Coursework (9 units)

EDEL 511 Survey of Educational Research (3)

EDEL 529 Graduate Studies: Learning Theory for Classroom Use (3)

EDEL 536 Curriculum Theory and Development (3)

Coursework in Concentration (12 units)

Six units from instruction-focused courses

EDEL 492; 515 OR 523; 521, 527, 538, 539, 541, 542, 551, 552, 553

Six units from curriculum-focused courses

EDEL 528, 530, 531, 532, 533, 534, 535, 537, 548, 571

Electives (6 units)

Chosen in consultation with and approved by the graduate adviser.

Culminating Experience (3 units)

EDEL 594, 597, 598

For further information, consult the graduate program adviser.

EMPHASIS IN DIVERSITY

Admission to Graduate Standing – Conditionally Classified/ Classified

The requirements for admission to conditionally classified and classified standing are the same as those for the M.S. in Education concentration in Elementary Curriculum and Instruction.

Core Coursework (9 units)

EDEL 500 Culture and Curriculum (3)

EDEL 511 Survey of Educational Research (3)

EDEL 529 Graduate Studies: Learning Theory for Classroom Use (3)

Diversity Emphasis Coursework (9 units)

EDEL 530 Graduate Studies in Elementary Education: Second Languages (3)

EDEL 541 Psychological and Sociological Foundations of Bilingual-Bicultural Education (3)

EDEL 542 Current Issues and Problems in Bilingual-Bicultural Education (3)

Curriculum-Focused Coursework (15 units)

EDEL 528, 531, 532, 533, 534, 535, 548, 571

Elective (3 units)

Elective units are chosen in consultation with and approved by the graduate adviser.

Culminating Experience (3 units)

EDEL 594, 597, 598

EMPHASIS IN EARLY CHILDHOOD EDUCATION

Admission to Graduate Standing – Conditionally Classified/ Classified

The requirements for admission to conditionally classified or classified standing are the same as for the M.S. in Education concentration in Elementary Curriculum and Instruction.

Core Coursework (9 units)

EDEL 511 Survey of Educational Research (3)

EDEL 529 Graduate Studies: Learning Theory for Classroom Use (3)

EDEL 536 Curriculum Theory and Development (3)

Coursework in Early Childhood Emphasis (9 units)

EDEL 528 Reading/Language Arts in the Early Childhood Curriculum (3)

EDEL 538 Teaching and Learning in the Early Childhood Classroom (3)

EDEL 548 Social Sciences, Science, and Math in Early Childhood Education (3)

Curriculum-Focused Coursework (6 units)

EDEL 530, 531, 532, 533, 534, 535, 537, 571

Elective (3 units)

Elective units are chosen in consultation with and approved by the graduate adviser.

Culminating Experience (3 units)

EDEL 594, 597, 598

For further information, consult the graduate program adviser.

EMPHASIS IN PROFESSIONAL INQUIRY AND PRACTICE)

Admission to Gradate Standing – Conditionally Classified/ Classified

The requirements for admission to conditionally classified or classified standing are the same as for the M.S. in Education concentration in Elementary Curriculum and Instruction.

Core Courses (9 units)

EDEL 511 Survey of Educational Research (3)

EDEL 529 Graduate Studies: Learning Theory for Classroom Use (3)

One of the following:

EDEL 536 Curriculum Theory and Development (3)

EDEL 500 Culture and Curriculum (3)

Emphasis Courses (9 units)

EDEL 521 The Study of Teaching (3)

EDEL 551 Assessment Across the Curriculum (3)

EDEL 552 Family, Community, and Professional Partnerships (3)

Curriculum Course (3 units)

EDEL 528, 530, 531, 532, 533, 534, 535, 548

Adviser-Approved Electives (6 units)

Culminating Experience (3 units)

EDEL 594, 597, 598

EMPHASIS IN MATH AND SCIENCE

Admission to Graduate Standing – Conditionally Classified/ Classified

The requirements for admission to conditionally classified or classified standing are the same as for the M.S. in Education concentration in Elementary Curriculum and Instruction.

Core Courses (9 units)

EDEL 511 Survey of Educational Research (3)

EDEL 529 Graduate Studies: Learning Theory for Classroom Use (3)

EDEL 536 Curriculum Theory and Development (3)

Emphasis Courses (12 units)

EDEL 492 Gender issues in Math and Science (3)

EDEL 515 Technology and Problem Solving in Schools (3)

EDEL 532 Graduate Studies in Elementary Education: Mathematics (3)

EDEL 533 Graduate Studies in Elementary Education: Science (3)

EDEL 571 Graduate Studies in Elementary Education: Science Education Practicum (3)

Adviser-Approved Electives (6 units)

Culminating Experience (3 units)

EDEL 594, 597, 598

For further information, consult the graduate program adviser.

EMPHASIS IN STAFF DEVELOPMENT

Admission to Graduate Standing – Conditionally Classified/ Classified

The requirements for admission to conditionally classified or classified standing are the same as for the M.S. in Education concentration in Elementary Curriculum and Instruction.

Core Coursework (9 units)

EDEL 511 Survey of Educational Research (3)

EDEL 529 Graduate Studies: Learning Theory for Classroom Use (3)

EDEL 536 Curriculum Theory and Development (3)

Emphasis Courses (9 units)

EDEL 521 The Study of Teaching (3)

EDEL 539 Clinical Supervision: Analyzing Effective Teaching (3)

EDEL 553 Models of Teaching (3)

Curriculum-Focused Coursework (6 units)

EDEL 528, 530, 531, 532, 533, 534, 535, 537, 548, 571

Elective (3 units)

Elective units are chosen in consultation with and approved by the graduate adviser.

Culminating Experience (3 units)

EDEL 594, 597, 598

EMPHASIS IN TECHNOLOGY IN EDUCATION

Admission to Graduate Standing – Conditionally Classified/ Classified

The requirements for admission to conditionally classified and classified standing are the same as those for the M.S. in Education concentration in Elementary Curriculum and Instruction.

Core Coursework (9 units)

EDEL 511 Survey of Educational Research (3)

EDEL 529 Graduate Studies: Learning Theory for Classroom Use (3)

EDEL 536 Curriculum Theory and Development (3)

Coursework in Technology in Education Emphasis (12 units)

EDEL 512 Level Two Technology Proficiencies for Teachers in K-8 Schools (3)
OR EDEL 523 Distance Education Issues and Trends in Schools (3)

EDEL 515 Technology and Problem Solving in Schools (3)

EDEL 522 Web Design for Instruction in Schools (3)

EDEL 590 Technology Professional Development in Schools (3)

Curriculum-Focused Coursework (6 units)

EDEL 528, 530, 531, 532, 533, 534, 535, 537, 548, 571

Culminating Experience (3 units)

EDEL 594, 597, 598

COMPUTING CERTIFICATE FOR ELEMENTARY SCHOOL TEACHERS

The Computing Certificate for Elementary School Teachers certificate program provides a broad understanding of the applications of technology in the elementary school classroom and the instructionally related tasks in the public schools.

Required Courses (12 units)

EDEL 512 Level Two Technology Proficiencies for Teachers in K-8 Schools (3)
OR EDEL 523 Distance Education Issues and Trends in Schools (3)

EDEL 515 Technology and Problem Solving in Schools (3)

EDEL 522 Web Design for Instruction in Schools (3)

EDEL 590 Technology Professional Development in Schools (3)

For further information, consult the Elementary Education graduate program adviser.

ELEMENTARY AND BILINGUAL EDUCATION COURSES

Courses are designated EDEL in the class schedule.

110 Explorations in Education (3)
(Same as EDSC 110)

315 Introduction to Elementary Classroom Teaching (3)

Exploratory course with field assignments for students considering career in elementary school teaching. Campus seminars and overview of admission requirements for the Multiple Subject Credential Program. Students taking this course to meet the prerequisite for either the Multiple Subject or the Special Education Credential Program must earn a "B" (3.0) or better to receive a grade of credit. Fieldwork required.

325 Cultural Pluralism in Elementary Schools (3)

Prerequisite: completion of General Education Category D.1. Culture and cultural pluralism in elementary schools. Topics: Examination of one's own beliefs and values; classroom practices and materials that promote equity; strategies for learning about students; history/traditions of cultural groups; and assessment of multicultural education programs.

429 Integrated Curriculum and Instruction in the Elementary School (3)

Prerequisite: admission to second semester of Multiple Subject Credential Program. Additional study of elementary curriculum emphasizing language arts, integrated instruction across the curriculum and assessing learning outcomes. Must be taken for a letter grade if enrolled in the credential program. A "B" (3.0) or better is required to pass the course.

430 Foundations in Elementary School Teaching (3)

Prerequisite: admission to Multiple Subject Credential Program. Curriculum of the elementary school, instructional planning, principles of effective teaching, generic instructional strategies, classroom management and legal issues in education. Must be taken for a letter grade if enrolled in the credential program. A "B" (3.0) or better is required to pass the course. (Same as SPED 430)

433 Language Arts and Reading Instruction in the Public Schools (3)

Prerequisite: admission to Multiple Subject Credential Program. Principles of reading instruction, elements of the language arts program including literature-based reading, content area reading, the role of phonics, emergent literacy, and diagnosis of reading problems. Must be taken Credit/No Credit. A "B" (3.0) or better is required to receive a grade of credit.

434 Methods and Inquiry for Teaching English Learners (2)

Prerequisites: admission to Multiple Subject Credential Program, EDEL 315 or HCOM 407, EDSC 310 and SPED 371. Theoretical foundations, legal issues and school programs for the education of English learners. Assessment, materials, methods and strategies for English language development and learning across the curriculum for elementary school English learners. Must be taken Credit/No Credit. A "B" (3.0) or better is required to receive a grade of Credit. One or more sections offered online. (Same as SPED 434)

435 Mathematics Curriculum and Instruction in Elementary School Teaching (2)

Prerequisites: admission to Multiple Subject Credential Program, EDEL 315 or HCOM 407, EDSC 310 and SPED 371. Instructional materials, learning styles, inquiry, concept learning, problem solving, various instructional strategies applied to teaching mathematics. Must be taken Credit/No Credit. A "B" (3.0) or better is required to receive a grade of credit. (Same as SPED 435)

436 Science Curriculum and Instruction in Elementary School Teaching (2)

Prerequisites: admission to Multiple Subject Credential Program. Instructional materials, learning styles, inquiry, concept learning, problem solving, various instructional strategies applied to teaching science. Must be taken Credit/No Credit. A "B" (3.0) or better is required to receive a grade of credit.

437 Social Studies Curriculum and Instruction in Elementary School Teaching (2)

Prerequisite: admission to Multiple Subject Credential Program. Instructional materials, learning styles, inquiry, concept learning, problem solving, various instructional strategies applied to teaching social studies. Must be taken Credit/No Credit. A "B" (3.0) or better is required to receive a grade of credit.

438 Supervised Fieldwork in Elementary Teacher Education (1-2)

Prerequisites: admission to Multiple Subject Credential Program, EDEL 315 or HCOM 407, EDSC 310, SPED 371. Students serve as teacher participants in an assigned elementary school classroom. Must be taken Credit/No Credit. A "B" (3.0) or better is required to receive a grade of credit. (Same as SPED 438)

439 Student Teaching in the Elementary School (4-14)

Prerequisites: EDEL 430, 433, 438 and admission to student teaching. Participation in a regular elementary school teaching program for the full school day. Must be taken Credit/ No Credit. A "B" (3.0) or better is required to receive a grade of credit. (Same as SPED 439).

446 Methods and Inquiry for Bilingual Teachers (3)

Prerequisite: admission to multiple- or single-subject bilingual credential program or consent of instructor. Prepares bilingual teacher candidates to teach Spanish-speaking students. Program models for bilingual instruction, methods for teaching reading and content areas in bilingual settings, materials and assessment. Conducted in Spanish and English; 20 hours of fieldwork required.

448 Methods and Inquiry for Asian Language BCLAD Candidates (3)

Prerequisite: admission to Multiple Subject Credential Program with BCLAD emphasis (Asian languages). Equity issues, curriculum and instruction for Asian language-speaking elementary students.

450 Visual and Performing Arts Methods: Art, Dance, Drama and Music (1)

Prerequisite: admission to Multiple Subject Credential Program. Instructional materials, learning styles, integration and strategies as they apply to teaching the arts in elementary education. Must be taken Credit/No credit. A "B" (3.0) or better is required to receive a grade of credit. (Same as SPED 450)

451 Community, School and Classroom Issues (1)

Prerequisites: admission to Multiple Subject Credential Program, EDEL 315 or HCOM 407, EDSC 310 and SPED 371. Current issues of elementary school teaching, including classroom management, parent-teacher communication, school law and child abuse reporting. Must be taken Credit/No Credit. A "B" (3.0) or better is required to receive a grade of credit. (Same as SPED 451)

452 P.E., Health and Mainstreaming Education (1)

Prerequisite: admission to Multiple Subject Credential Program. Mainstreaming students with special needs, health education and physical education in elementary school settings. Must be taken Credit/No Credit. A "B" (3.0) or better is required to receive a grade of credit. (Same as SPED 452)

453 Teaching Performance Assessment Support (1)

Prerequisites: EDEL 430, 433, 434, 435, 438 and admission to student teaching. TPA support within social studies or science for the Multiple Subject Credential program. Must be taken Credit/No Credit. A "B" (3.0) or better is required to receive a grade of credit. (Same as SPED 453)

492 Gender Issues in Math and Science: Teaching and Learning (3)

Prerequisites: EDEL 315 and senior or graduate standing. Educational and cultural barriers and avenues to the success of girls in science and mathematics, development of curricula and instructional methods to address these issues.

499 Independent Study (1-3)

Prerequisites: senior or graduate standing, consent of instructor prior to registration. Individual investigation under supervision of a faculty member. Only students of demonstrated capability and maturity will be approved. May be repeated for credit.

500 Culture and Curriculum (3)

Prerequisite: teaching credential or consent of instructor. Culture and school curriculum, forces operating on the curriculum, the participants involved in curriculum building, modification of the curriculum to reflect multicultural contexts, and pedagogy and pluralism.

502A New Teacher Induction, Assessment, and Support Year 1 (1)

(Same as EDSC 502A)

502B New Teacher Induction, Assessment, and Support Year 1 (2)

(Same as EDSC 502B)

502C New Teacher Induction, Assessment, and Support Year 2 (1)

(Same as EDSC 502C)

502D New Teacher Induction, Assessment, and Support Year 2 (2)

(Same as EDSC 502D)

511 Survey of Educational Research (3)

Prerequisite: teaching credential. Descriptive statistics and statistical inferences in educational research. Representative research papers. Principles of research design. Prepare papers using research findings. One or more sections offered online.

512 Level Two Technology Proficiencies for Teachers in K-8 Schools (3)

Prerequisite: teaching credential. Theoretical basis and strategies for improving teaching of K-8 students through use of multimedia and other technologies.

515 Technology and Problem Solving in Schools (3)

Prerequisites: Level 2 technology proficiency and teaching credential. Software and web-based applications that promote problem-solving in schools. Research and discussion of issues, implications of and implementation strategies for using technology to enhance students' problem-solving skills. One or more sections offered online.

518A Issues in the Instructional Design of Software for Use in Schools (3)

Prerequisite: Level 2 technology proficiency. Issues related to the instructional design of courseware designed specifically for classroom students. Topics include learning principles, learner characteristics, instructional strategies, screen design, response analysis, feedback and interactivity. One or more sections offered online.

518B Multimedia Development and Instruction in the Classroom (3)

Prerequisite: EDEL 518A. Application and instruction of computer-based instructional design principles in the development for classroom software and multimedia projects. Topics include planning and assessment, design principles, and development of tools. One or more sections offered online.

521 The Study of Teaching (3)

Prerequisite: EDEL 511 and teaching credential. The teaching process. Research methodology used to analyze teaching, the current knowledge of the association between teaching processes and student learning, and the implications of the research for the classroom.

522 Web Design for Instruction in Schools (3)

Prerequisite: Level 2 technology proficiency, EDEL 515, or consent of instructor. Design, development, and implementation of web pages and sites for instructional purposes. Issues surrounding using the World Wide Web for instruction. Fieldwork required. Offered entirely online.

523 Distance Education Issues and Trends in School (3)

Prerequisite: Level 2 technology proficiency or consent of instructor. Issues and trends in distance education for teaching and learning in schools. Draws on research in K-12, higher education and corporate domains. Offered entirely online.

527 Graduate Seminar in Developmental Psychology: The Human from Conception Through Eight Years (3)

Prerequisites: teaching credential. Physical, social, cognitive-intellectual, and emotional development of individuals from conception to middle childhood. Current problems, theories and research.

528 Reading/Language Arts in the Early Childhood Curriculum (3)

Prerequisite: teaching credential. Significant research, curriculum developments and materials, and current instructional strategies for promoting emergent literacy in children.

529 Graduate Studies: Learning Theory for Classroom Use (3)

Prerequisite: teaching credential. Major theoretical positions in planning and interpreting classroom practices. Educational research findings, implications for curriculum development and teaching practices. One or more sections offered online.

530 Graduate Studies in Elementary Education: Second Languages (3)

Prerequisites: EDEL 434 and teaching credential. Significant research, curriculum developments and materials, and criteria for planning and improving second language programs, including those for English as a second language.

531 Graduate Studies in Elementary Education: Integrated Language Arts (3)

Prerequisite: teaching credential. Significant research, trends and problems in teaching the fundamental skills of communication; curriculum development and materials, and criteria for planning and improving integrated language arts programs.

532 Graduate Studies in Elementary Education: Mathematics (3)

Prerequisite: teaching credential. Significant research, curricular developments and materials, criteria for planning and improving mathematics programs and instruction. One or more sections offered online.

533 Graduate Studies in Elementary Education: Science (3)

Prerequisite: teaching credential. Research and materials in science education and criteria for planning and improving science programs and instruction.

534 Graduate Studies in Elementary Education: Social Studies (3)

Prerequisite: teaching credential. Research developments and materials, criteria for planning and improving social studies programs, and current techniques of teaching.

535 Graduate Studies in Elementary Education: Reading in the Language Arts Program (3)

Prerequisite: teaching credential. Research developments and materials, criteria for planning and improving reading instruction in the integrated language arts programs, current instructional strategies and the role of children's literature.

536 Curriculum Theory and Development (3)

Prerequisite: teaching credential. School curriculum, including the forces operating on the curriculum and the participants involved in curriculum building. Process of curriculum building. One or more sections offered online.

537 Graduate Studies: Current Issues and Problems (3)

Prerequisite: teaching credential. Problems and issues in elementary and secondary education, their causes and possible solutions. One or more sections offered online.

538 Teaching and Learning in the Early Childhood Classroom (3)

Prerequisite: teaching credential. Application of significant research in the education of young children. Current instructional strategies and criteria for planning and improving programs in early childhood education.

539 Clinical Supervision: Analyzing Effective Teaching (3)

Prerequisite: teaching credential. Systematic, research-based approach. Basic components needed by teachers, staff developers, and administrators to improve their instructional skills. Principles of learning applied to supervision and applied practice in analyzing the instructional process.

541 Culture and Education of Latino Students (3)

Prerequisite: Admission to credential program or master's program. Impact of historical, social, political and economic forces on educational experiences for Latino students in the U.S., in particular, those of Mexican origin. Immigration, migration, language and culture with respect to educational attainment. (Same as EDSC 541)

542 Current Issues and Problems in Bilingual-Bicultural Education (3)

Prerequisite: teaching credential. Problems and issues in the development and implementation of bilingual-bicultural education.

548 Social Studies, Science, and Math in Early Childhood Education (3)

Prerequisite: teaching credential or equivalent experience. Current curriculum standards and instructional options in social studies, science, and mathematics in early childhood education. Content, process skills and literature connections.

551 Assessment Across the Curriculum (3)

Prerequisite: teaching credential. Improving student performance through assessment, self-assessment, and student goals setting; establishing congruence between purposes, audiences, and instruments used. Design and selection of instruments, including performance assessment, portfolio, observation and personal communication forms for standards-based assessment.

552 Family, Community and Professional Partnership (3)

Prerequisite: teaching credential. Value of educational partnerships between families, teachers and the community. Inquiry and development of strategies to develop partnerships, address and overcome barriers, and sustain partnerships to enhance the education of children. One or more sections offered online.

553 Models of Teaching (3)

Prerequisite: teaching credential. Varied strategies of instruction, culminating in the identification and study of 16 unique models. Relationships among theories of learning and instruction. Various instructional alternatives.

571 Graduate Studies in Elementary Education: Science Education Practicum (3)

Prerequisite: EDEL 533. Strategies for effectively teaching and assessing science content knowledge, science process skills, and scientific attitudes in the elementary school; includes field assignments in elementary schools (1 unit - 4 hours per week); seminars (2 units - 2 hours per week). Principles of effective staff development in elementary science education.

590 Technology Professional Development in Schools (3)

Prerequisites: Level 2 technology proficiency, EDEL 522 and 523. Planning, implementing and evaluating technology professional development in schools. Writing grants, acting as a change agent and serving as a technology leader in a school. Fieldwork required.

594 Research Seminar (3)

Prerequisite: 3.0 GPA and consent of instructor. Preparation, evaluation, development and presentation of curriculum research proposals culminating in a graduate project. Individuals and groups will participate in critiquing proposals, curriculum projects and research results. One or more sections offered online.

597 Project (1-3)

Prerequisite: 3.0 GPA and consent of instructor. Individual research on an empirical project, with conferences with the instructor, culminating in a project.

598 Thesis (1-3)

Prerequisite: 3.0 GPA and consent of instructor. Individual research with conferences with the instructor, culminating in a thesis.

599 Independent Graduate Research (1-3)

Prerequisite: teaching credential, one year of teaching experience, and consent of instructor. Independent inquiry.

English, Comparative Literature and Linguistics

College of Humanities and Social Sciences

DEPARTMENT CHAIR

Sheryl Fontaine

DEPARTMENT OFFICE/WEBSITE

University Hall 323
657-278-3163
http://hss.fullerton.edu/english

PROGRAMS OFFERED

Bachelor of Arts in Comparative Literature
Bachelor of Arts in English
Minor in English
Master of Arts in English
Minor in Linguistics
Bachelor of Arts in Linguistics
Master of Arts in Linguistics

FACULTY

Marlin Blaine, Cornel Bonca, April Brannon, Ellen Caldwell, Lana Dalley, Angela Della Volpe, Sheryl Fontaine, Joanne Gass, Erin Hollis, Susan Jacobsen, David Kelman, Stephen Mexal, Helen Mugambi, Franz Mueller, Irena Praitis, Chris Ruiz-Velasco, David Sandner, Joseph Sawicki, Yichin Shen, Kay Stanton, Stephen Westbrook, Chris Westgate, Heping Zhao

INTRODUCTION

Students who focus their academic studies in English or Comparative Literature examine literature from a variety of cultural and historical traditions, including literary studies, literary theory, creative writing, rhetorical studies and English education. Linguistics majors study the origins and development of language, how it is learned, stored in the brain and changes over time (See "Linguistics Program" in the catalog for a description of the degree requirements).

Our major programs emphasize the production of academic, professional and creative writing, and the study of English and American literatures and intersecting countries across the globe. Courses examine the diverse ways in which writing and literature let us see the past, understand advanced rhetorical and linguistic techniques, and make sense of the world through narrative.

A major in English or Comparative Literature is suitable for students interested in any of the wide range of professions that expect excellence in reading and writing – including education, creative and professional writing, public service and preparation for further study in literature, law, medicine or business. The majors may be combined with preparation for elementary and secondary school teaching. In addition, they provide a foundation for students who intend to pursue advance degrees in preparation for teaching at the college level.

LEARNING GOALS AND STUDENT LEARNING OUTCOMES

The following goals and learning outcomes have been established for students pursuing a degree in English:

Read critically

- Read a text in any of several genres on a number of levels, including literal comprehension, aesthetic responsiveness, informed awareness of the traditions and the varied critical perspectives within which it may be most productively read, and rhetorical and logical analysis of its argument and/or structure

Write effectively

- Write about various kinds of texts so as to articulate the dimensions of the work as described above
- Demonstrate an awareness of audience, purpose and various rhetorical forms, as well as a high level of control of standard written English conventions

Research

- Demonstrate the ability to find in textbooks and research materials — paper and electronic — the kinds of information relevant to a given problem or issue, literary or otherwise, and to integrate that information into one's own written work to support one's argument while giving appropriate credit to the source of the information

Knowledge of major literary works and traditions

- Have a working knowledge of the major writers, periods and genres of English and American literature and be able to place important works and genres in their historical context

Knowledge of noncanonical literary works

- Have a working knowledge of some important works in nonwestern, ethnic and women's literatures that illustrate the diversity of literary studies and the interconnectedness of literary traditions

Structure of the English language

- Have a working knowledge of the structure of the English language and theories of second language acquisition

BACHELOR OF ARTS IN COMPARATIVE LITERATURE (120 UNITS)

The Bachelor of Arts in Comparative Literature requires 42 units in the major, all of which require a "C" (2.0) or better. In selecting courses, students are urged to consult a faculty adviser.

Required courses: ENGL 300 and 18 units in comparative literature, including CPLT 324, 325, and either ENGL/CPLT 450 or CPLT 451;

British and American Literature (six upper-division units listed under English); Breadth Requirement (six adviser-approved units in other fields such as anthropology, history, art history, music history or philosophy);

Electives (nine upper-division units in comparative literature, or literature courses in English or an adviser-approved foreign language).

Reading Competence in a Foreign Language

This requirement can be met by examination or by successfully completing an adviser-approved 400-level course offered by the Department of Modern Languages and Literatures, provided it is not taught in translation. Information on the examination is available in the Department of English, Comparative Literature and Linguistics office.

BACHELOR OF ARTS IN ENGLISH (120 UNITS)

The Bachelor of Arts in English requires 42 units, all of which require a "C" (2.0) or better. In selecting courses – 30 units of which must be upper-division – students are urged to consult a faculty adviser in the Department of English, Comparative Literature and Linguistics. At least one course must satisfy the Comparative Studies requirement. Courses meeting the requirement are asterisked. ENGL 101, a graduation requirement for all students, is not part of the English major but is a prerequisite to further work in English.

Required Courses (9 units)

ENGL 300 Analysis of Literary Forms (3)

ENGL 302 Advanced Composition and Rhetoric for English Teachers (3)
OR ENGL 307 Advanced College Writing for English Studies (3)

ENGL 316 Shakespeare (3)

Survey Courses (6 units)

ENGL 211 British Literature to 1760 (3)

ENGL 212 British Literature from 1760 (3)

ENGL 221 American Literature to Whitman (3)

ENGL 222 American Literature from Twain to the Moderns (3)

CPLT 324 World Literature to 1650 (3) *

CPLT 325 World Literature from 1650 (3) *

Period, Genre and Criticism Courses (9 units)

(At least one course from those prior to 1800)

ENGL 423 Early American Literature (3)

ENGL 450 Medieval Literature (3) *

ENGL 451 Elizabethan and Jacobean Drama (3)

ENGL 452 Elizabethan Poetry and Prose (3)

ENGL 453 17th-Century Poetry and Prose (3)

ENGL 454 The Drama of the Restoration and the 18th Century (3)

ENGL 455 Restoration and 18th-Century Literature (3)

ENGL 456 The Development of the English Novel Through Jane Austen (3)

ENGL 457 The Romantic Movement in English Literature (3)

ENGL 458 Victorian Literature (3)

ENGL 459 The Development of the 19th Century English Novel (3)

ENGL 462 Modern British and American Fiction (3)

ENGL 463 Contemporary Fiction in English (3)

ENGL 464 Modern British and American Drama (3)

ENGL 465 Contemporary Drama in English (3)

ENGL 466 Modern British and American Poetry (3)

ENGL 467 Contemporary Poetry in English (3)

ENGL 491 Traditions of English Literary Criticism (3)

ENGL 492 Modern Critical Theory (3)

Major Author Courses (3 units)

ENGL 315 Chaucer (3)

ENGL 317 Milton (3)

Language Courses (3 units)

ENGL 303 Structure of Modern English (3)

ENGL 305 The English Language in America (3)

Electives (12 units)

Chosen from English, Comparative Literature or Linguistics courses numbered 201 and above.

MINOR IN ENGLISH (21 UNITS)

Students must complete 15 units of required and survey courses, in addition to a maximum of 6 elective units for the minor. In selecting courses, students should consult a faculty adviser in the Department of English, Comparative Literature and Linguistics. A grade of "C" (2.0) or better is required in all courses applied to the minor.

Required Courses (9 units)

ENGL 300 Analysis of Literary Forms (3)

ENGL 307 Advanced Writing in English Studies (3)

ENGL 316 Shakespeare (3)

Survey Courses (6 units)

ENGL 211 British Literature to 1760 (3)

ENGL 212 British Literature from 1760 (3)

ENGL 221 American Literature to Whitman (3)

ENGL 222 American Literature from Twain to the Moderns (3)

CPLT 324 World Literature to 1650 (3)

CPLT 325 World Literature from 1650 (3)

Electives (6 units)

Chose from additional English, Comparative Literature and Linguistics courses numbered 201 and higher.

MASTER OF ARTS IN ENGLISH (30 UNITS)

The master's degree program in English offers students the opportunity to achieve a multifaceted understanding of literature and language. The degree is useful to those already teaching in high schools or interested in community college teaching, to those seeking careers in writing and publishing, and to those intending to take further graduate work.

Admission to Graduate Standing

Applicants are encouraged to make an appointment with the department graduate adviser. The adviser will review transcripts, advise applicants regarding prerequisites and determine if any courses apply to the degree program.

Admission to the master's degree program is a prerequisite to enrollment in all graduate courses.

1. University requirements include a bachelor's degree from an accredited institution and a minimum GPA of 2.5 in the last 60 semester units attempted.
2. The department requires a bachelor's degree in English or Comparative Literature from an accredited institution with at least a 3.0 grade-point average in the upper-division major courses, provided that a minimum of 24 units of upper-division coursework is included. If the applicant holds a bachelor's degree in another major, 24 units of upper-division coursework in English and/or Comparative Literature must be completed with at least a 3.0 grade-point average before beginning work in the master's degree program.
3. In the event that the applicant's grade-point average in prerequisite courses is below 3.0, he or she may take additional upper-division English and/or Comparative Literature coursework and reapply to the program. The applicant should consult with the graduate adviser to determine appropriate coursework. Some courses taken to make up qualitative deficiencies may be credited toward the M.A., if completed with a grade of "B" (3.0) or better, and if applicable to the student's particular study plan. Courses taken to remove quantitative deficiencies may not be applied to the M.A. program.
4. A writing sample will also be required of all applicants. The writing sample should demonstrate advanced skill in literary analysis or rhetorical and expository writing. A paper written for an upper-division literature course and analyzing one or more elements in one or more literary works is preferred. The writing sample should be approximately five to 10 pages long, and include secondary research. Applicants who do not have course papers available should contact the department graduate adviser for advice.
5. Applicants must submit three letters of recommendation from individuals best qualified to judge their potential for graduate study in English.
6. All applicants, regardless of citizenship, whose preparatory education was principally in a language other than English, must demonstrate competence in English. Those who do not possess a bachelor's degree from a postsecondary institution where English is the principal language of instruction must receive a minimum TOEFL score of 600 (paper) or 100 (Internet), or 7.5 on the International English Language Testing System (IELTS).

Application Deadlines

The deadlines for completing online applications are provided on the department's website. Applications are available online (http://www.csumentor.edu).

Foreign Language Requirement

Students must satisfy a foreign language requirement with one of the following options:

(1) two years of foreign language at the college or university level; (2) one 400-level course in a foreign language or in literature taught in a foreign language; (3) LING 406 or 412; or (4) another 400-level linguistics course approved by the graduate adviser. This requirement may be satisfied prior to or after admission to the M.A. program.

Study Plan

All courses in the graduate program must be approved by the graduate adviser.

A study plan must be developed and approved for admission to classified graduate standing within the student's first nine units of graduate coursework. Courses taken by a student admitted to the program with conditionally classified status do not necessarily

apply toward the degree. No more than nine units of postgraduate coursework may be applied to the master's degree program. See the graduate adviser for further information.

The study plan allows three units of adviser-approved coursework outside the department and/or three units of graduate independent study. No more than six units are allowed at the 400 level. In addition, at least one proseminar or seminar must be in Comparative Literature or cross-listed in Comparative Literature. A project and portfolio are required of all students. Students are encouraged to take ENGL 500 in their first semester.

Core Course (3 units)

ENGL 500 Introduction to Graduate Studies in Literature (3)

Graduate Seminars (9 units)

Three units each from three of the following four categories:

- Language, Composition and Rhetoric
- Creative Writing
- Cultural Studies/Theory
- Literature

Electives (15 units), adviser-approved

Project and Portfolio (3 units)

Students are required to complete a project in the project writing course, ENGL 595. Students who plan to complete a creative writing project must take a minimum of six units of creative writing workshops, one of which must be at the 500 level.

Project proposals are due before the end of the fifth week of the semester preceding enrollment in the project writing course and must be approved by the department Graduate Studies Committee. If the proposal is not approved when first submitted, students may resubmit only once in the same semester. Please consult the graduate adviser or department office for further details.

Based on their interests, and in conjunction with their adviser, students will choose one of three foci for their portfolio: academic professional development, pedagogical development or creative/professional writing development. The entire portfolio must be completed, reviewed and approved by a faculty review committee at least two months prior to the end of the student's final semester in the graduate program. See the department website for further information.

CERTIFICATE IN WRITING AND TEACHING (12 UNITS)

Designed to provide M.A. English candidates additional opportunities for professional development, the Certificate in Writing and Teaching further enhances students' preparation for careers in teaching, publishing or advanced graduate study.

Writing and Teaching Courses (12 units)

Three units from the following:

ENGL 402/402S Theories of Response to Written Composition (3)

ENGL 515 Professional Editing and Journal Production (3)

ENGL 590/590S Writing Theory and Practice for Teaching Associates (4)

Nine units from the following:

ENGL 404T Advanced Creative Writing (3)

ENGL 509T Creative Writing Workshop (3)

ENGL 510 Rhetorical Criticism and Discourse Analysis (3)

ENGL 525T Proseminar in Rhetoric or Writing (3)

ENGL 575T Topics in Teaching (3)

ENGL 591T Seminar: Topics in Rhetoric and Composition (3)

In addition, students are required to attend the Workshop Series in Professional Development, consisting of three meetings offered annually.

For further information, contact the Department of English, Comparative Literature and Linguistics.

BACHELOR OF ARTS IN LINGUISTICS MINOR IN LINGUISTICS

For information on these programs and a listing of linguistics courses, please consult the "Linguistics" section of this catalog.

COMPARATIVE LITERATURE COURSES

Courses are designated as CPLT in the class schedule.

312 The Bible as Literature (3)

Prerequisite: completion of General Education (G.E.) Category C.2. Literary qualities of biblical literature and the influence of major themes upon Western literary traditions. (Same as CPRL 312)

315 Classical Mythology in World Literature (3)

Prerequisite: completion of G.E. Category C.2. Greek and Roman myths that have been of continuing significance in Western world literature.

324 World Literature to 1650 (3)

Prerequisites: junior or senior standing and completion of any literature course from G.E. Category C.2. Asian and Western literature from the beginning to 1650.

325 World Literature from 1650 (3)

Prerequisites: junior or senior standing and completion of any literature course from G.E. Category C.2. Asian and Western literature from 1650 to the present.

355T Images of Women in Literature (3)

(Same as ENGL 355T)

380 Introduction to Asian Literature (3)

Prerequisite: completion of any literature course from G.E. Category C.2. Selected translations of Arabic, Persian, Indian, Chinese and Japanese literature.

381 African Literature (3)

(Same as ENGL 381 and Afro-Ethnic Studies 381)

382T Topics in Asian Literature (3)

Prerequisite: completion of any literature course from G.E. Category C.2. Specific topics will vary from semester to semester. May be repeated with different content for additional credit.

389 Literature About the War in Vietnam (3)

(Same as ENGL/ASAM 389)

450 Medieval Literature (3)

(Same as ENGL 450)

451 Literature of the Renaissance (3)

Prerequisites: survey of English, American, or world literature; an upper-division literature course; or equivalent. The Renaissance as a literary movement, from Erasmus to Montaigne and Cervantes.

499 Independent Study (1-3)

Prerequisite: junior or senior standing.

525T Proseminar in Literature, Rhetoric, or Writing (3)

(Same as ENGL 525T)

571T Graduate Seminar: Major Writers (3)

(Same as ENGL 571T)

572T Graduate Seminar: Literary Genres (3)

(Same as ENGL 572T)

573T Graduate Seminar: Cultural Periods (3)

(Same as ENGL 573T)

574T Graduate Seminar: Special Problems in Literature (3)

(Same as ENGL 574T)

575T Graduate Seminar: Topics in Teaching (3)

(Same as ENGL 575T)

579T Graduate Seminar: Problems in Criticism (3)

(Same as ENGL 579T)

599 Independent Study (1-3)

ENGLISH COURSES

Courses are designated as ENGL in catalog.

For world literature in English translation, see courses under Comparative Literature (CPLT)

099 Developmental Writing (3)

Intensive course in basic writing skills. Prepares students for ENGL 101 and intended for students who score 133 to 144 on the English Placement Test (EPT). Degree credit is not awarded for this course.

099M Developmental Writing (3)

Intensive course in basic writing skills and language development. Prepares students for ENGL 101 and intended for students who score below 133 on the English Placement Test (EPT). Degree credit is not awarded for this course.

101 Beginning College Writing (3)

Prerequisite: ENGL 099, a satisfactory score on the English Placement Test or exemption from the EPT. Introductory course in the fundamentals of expository prose. Grammatical and basic rhetorical concepts and practices necessary for successful college writing. Instructional fee.

105 Introduction to Creative Writing (3)

Prerequisite: ENGL 101. Exploratory creative writing with the opportunity to write in various genres. No credit toward the major or minor.

199 Intensive Writing Review (3)

Prerequisite: consent of instructor. Restricted to students who have failed the EWP at least twice. Intensive review of the fundamentals of writing expository prose. Meets examination portion of baccalaureate writing requirement. Carries no credit toward graduation.

200 Introduction to Literature (3)

Introduction to the study of fiction, drama and poetry. Critical understanding of literary types rather than of their historical development. Carries no credit toward the major.

206 Introduction to Language Structure and Language Use (3)

Introduction to the nature, structure, development and use of English. How sounds are articulated and patterned in meaningful units (phonology); symbolic correspondence (phonics); rules of word formation (morphology); word history (etymology); and language use (pragmatics). (Same as LING 206)

211 British Literature to 1760 (3)

Major periods and movements, major authors and major forms through 1760.

212 British Literature from 1760 (3)

Major periods and movements, major authors and major forms from 1760 through modern times.

221 American Literature to Whitman (3)

Major writers such as Hawthorn, Poe, Melville, Emerson, Thoreau, Whitman and Dickinson.

222 American Literature from Twain to the Moderns (3)

Major writers such as Twain, James, Crane, Hemingway, Faulkner, O'Neill, Frost and Eliot.

300 Analysis of Literary Forms (3)

Main literary forms-prose fiction, poetry and drama-are studied and analyzed. English majors should schedule this basic course as early as possible.

301 Advanced College Writing (3)

Prerequisite: ENGL 101. Writing expository prose for non-English majors. Precision in rhetoric and development of individual style by concentration on matters of diction, audience, emphasis and persuasion. Meets upper-division writing requirement for approved majors.

302 Advanced Composition and Rhetoric for English Teachers (3)

Prerequisite: ENGL 101. Expository prose, journalistic prose and creative writing for prospective teachers of English. Meets the university upper-division writing requirement for English majors. Requirement for application to English teaching credential.

303 The Structure of Modern English (3)

Prerequisite: junior standing. Grammar of contemporary English. Modern English usage. Requirement for application to English teaching credential.

305 The English Language in America (3)

American English, its origins, regional and social dialects, and role in American history and in such institutions as schools, corporations, government and the media. Requirement for application to English teaching credential. (Same as LING 305)

306 Intermediate Creative Writing (3)

Prerequisites: completion of G.E. Categories C.1, C.2. Creative writing beyond the introductory level. Poetry, the short story and/or the one-act play.

307 Advanced Writing in English Studies (3)

Prerequisite: ENGL/Comparative Literature majors who have completed their lower-division writing requirements. Interpretive frameworks of communities within the discipline of English Studies (literary studies, creative writing, English education, composition, cultural criticism). Uses discursive conventions of these communities to produce formal and informal texts of various genres.

315 Chaucer (3)

Prerequisite: ENGL 101 or equivalent. Canterbury Tales and Chaucer's language. Vocabulary, pronunciation, grammar and syntax of the East Midland dialect of Middle English.

316 Shakespeare (3)

Prerequisite: ENGL 101 or equivalent. Study of the major plays.

317 Milton (3)

Prerequisite: ENGL 101 or equivalent. Poetry and prose in the light of Milton's intellectual development.

324 Introduction to Afro-American Literature (3)

(Same as AFRO 324)

326 The American Frontier in Literature (3)

Prerequisite: any courses in American literature, American studies or American history. Thematic study of American literature as it reflects the changing frontier experience and establishes national myths and symbols.

327 Asian American Literature (3)

(Same as ASAM 327)

328 Literature of the American Indians (3)

Prerequisite: completion of any literature courses from G.E. Category C.2. The prose and poetry of the North American Indian tribes.

331 Shakespeare on Film (3)

Prerequisite: ENGL 101. Analysis of representative Shakespeare plays, along with viewing and analyzing several film versions of each play. Uses literary and film terminology to write critical responses to drama and film, develop storyboards and conceptualize a Shakespeare play adaptation "pitch" with set, costume design and marketing strategy.

341 Children's Literature (3)

Prerequisite: completion of any literature course in G.E. Category C.2. World literature written primarily for children, including material from the oral tradition, realistic fiction, fantasy and poetry.

355T Images of Women in Literature (3)

Prerequisite: junior or senior standing. Images of women in genres such as autobiography, poetry, drama and novel. Individual sections may treat conventional literary periods or specific cultures. May be repeated with different content for additional credit. (Same as CPLT 355T)

360 Scientific and Technical Writing (3)

Open to science and non-science students. Scientific and professional writing and editing, with attention to outlines and abstracts, description, process explanation, instructions and fundamentals of reports, feasibility studies, proposals, internal memos and letters.

365 Legal Writing (3)

Advanced composition stressing logic, reasoning and legal analysis.

370 Horror Fiction (3)

Prerequisite: ENGL 101 or equivalent. Horror/occult fiction (or "dark fantasy") from Mary Shelley to the present, including such writers as E.A. Poe, J.S. LeFanu, Bram Stoker, H.P. Lovecraft, Fritz Leiber and Stephen King.

371 Fantasy Fiction (3)

Prerequisite: ENGL 101 or equivalent. Fantasy in literature from Ariosto to Brautigan.

372 Detective Fiction (3)

Prerequisite: ENGL 101 or equivalent. Detective fiction from Edgar Allan Poe to the present, including writers such as Sayers, Christie, Chandler, Hammett and Ross MacDonald.

373 Science Fiction (3)

Prerequisite: ENGL 101 or equivalent. Science fiction as a literary genre, including future-scene fiction, the utopian novel, the superman/woman novel and short stories.

374 The Gothic Novel (3)

Prerequisite: ENGL 101. Development of the Gothic Novel in England from 1750-1850, including Walpole, Smith, Radcliffe, Lewis, Mary Shelley, Austen, Maturin and Emily Brontë.

381 African Literature (3)

Prerequisite: completion of any literature course from G.E. Category C.2. African literature written in the English language; the fiction, poetry and drama of the new nations. (Same as CPLT/AFRO 381)

389 Literature About the War in Vietnam (3)

Prerequisite: ENGL 101. Fiction, nonfiction, poetry and film reflecting views of the Vietnam War as experienced by North and South Vietnamese and by Americans, both soldiers and ordinary citizens. (Same as CPLT/ASAM 389)

402 Theories of Response to Written Composition (2)

Prerequisite: ENGL 301 and 303 or equivalents. Corequisite: ENGL 402S. May be taken for letter grade or credit/no credit.

402S Tutor Supervision (1)

Prerequisites: ENGL 301, 303. Corequisite: ENGL 402. May be taken for letter grade or credit/no credit.

404T Advanced Creative Writing (3)

Prerequisite: ENGL 306 or its equivalent. Instruction and practice in a workshop setting for the student with some experience in creative writing; emphasizes writing for professional markets. Consult the class schedule to determine section's emphasis. May be repeated for credit.

416 Studies in Shakespeare (3)

Prerequisite: ENGL 316. Problems of dramatic structure and artistic meanings.

423 Early American Literature (3)

Prerequisite: ENGL 221. Literature of colonial and revolutionary America, including the Puritans, 18th-century deism and rationalism, and the literary antecedents of American democratic thought.

429 American Landscape in Literature (3)

Literary perception of our environment, with special attention to what perceptions of the landscape reveal about human nature.

434 Literature for Junior and Senior High School (3)

Prerequisite: junior or senior standing. Evaluation, selection and interpretation of fiction, non-fiction, drama and poetry reflecting the interests of young people ages 12 to 17.

442 Changing Words: History, Semantics, and Translation (3)

(Same as LING 442)

450 Medieval Literature (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Readings in modern English translation from the medieval literature of England and the continent from St. Augustine to Sir Thomas Malory. (Same as CPLT 450)

451 Elizabethan and Jacobean Drama (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Dramatic tradition in plays by such dramatists as Marlowe, Jonson, Webster, Beaumont and Fletcher.

452 Elizabethan Poetry and Prose (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Non-dramatic literature of the English Renaissance.

453 17th-Century Poetry and Prose (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Non-dramatic literature of the period from 1603 to 1660 excluding Milton.

454 The Drama of the Restoration & the 18th Century (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Representative plays of the Restoration and 18th century. Development of such dramatic movements as the heroic play, Restoration comedy and sentimental drama.

455 Restoration and 18th-Century Literature (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Major writers from prose, poetry and dramatic genres, such as Butler, Rochester, Dryden, Pepys, Swift, Addison and Steele, Pope, Boswell, Johnson, Sheridan, Wycherley and Gay, as well selected minor writers.

456 The Development of the English Novel through Jane Austen (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. English novel from its beginnings to the 19th century, including such novelists as Defoe, Richardson, Fielding, Sterne and Austen.

457 The Romantic Movement in English Literature (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Major writers such as Burns, Blake, Wordsworth, Coleridge, Byron, Shelley and Keats.

458 Victorian Literature (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Major writers such as Carlyle, Tennyson, Browning, Arnold, Ruskin and Pater.

459 The Development of the 19th-Century English Novel (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Major novelists such as the Brontes, Thackeray, Dickens, Eliot and Hardy.

460 19th-Century American Literature (3)

Prerequisite: junior, senior or graduate standing. Poetry, drama and prose in 19th-century America. Major writers such as Emerson, Stowe, Dickenson and Thoreau.

462 Modern British and American Fiction (3)

Prerequisite: survey of English, American or world literature; an upper-division literature course; or equivalent. Modern British and American fiction from 1900-1960s.

463 Contemporary Fiction in English (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Fiction (novels and short stories) since the 1960s.

464 Modern British and American Drama (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. British and American drama from 1900 to 1950.

465 Contemporary Drama in English (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Drama in English from the 1960s to the present.

466 Modern British and American Poetry (3)

Prerequisite: survey of English, American or world literature; an upper-division literature course; or equivalent. British and American poetry from 1900 to the 1960s.

467 Contemporary Poetry in English (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Poetry in English from the 1960s to the present.

491 Traditions of English Literary Criticism (3)

Prerequisite: ENGL 300 or equivalent. Major English critics, from the Renaissance to the beginning of the 20th century, in relationship to the classical theories of criticism.

492 Modern Critical Theory (3)

Prerequisite: ENGL 300 or equivalent. Major movements in 20th-century British and American criticism.

498 English Internship (1-3)

Prerequisites: junior standing or consent of faculty supervisor. Practical application of literature and language studies outside the university. Specified hours, limited enrollment, credit/no credit; no credit toward major. May be repeated for a maximum of six units of credit.

499 Independent Study (1-3)

Prerequisite: junior or senior standing. Open to advanced students in English with consent of department chair. May be repeated for credit.

500 Introduction to Graduate Studies in Literature (3)

Research techniques, analytical approaches and theories of literature. Basic orientation in graduate literary studies.

509T Creative Writing Workshop (3)

Intensive graduate-level workshop in creative writing. Students produce their own work, write critiques of others' works and discuss opportunities for publication. Recommended for students with an interest in creative writing. Workshops may focus on writing poetry or fiction, or a mix of fiction and drama, depending on expertise of instructor. May be repeated for credit with different topic.

510 Rhetorical Criticism and Discourse Analysis (3)

Theories of disclosure and rhetorical analysis, ranging from an overview of historically foundational/classical readings and approaches to contemporary rhetorical theories and their applications to textual criticism.

515 Professional Editing and Journal Production (3)

First-hand experience editing and producing the English department's literary journal, DASH. Students solicit, review and edit creative writing submissions; design and create one journal issue.

525T Proseminar in Literature, Rhetoric, or Writing (3)

Comprehensive reading course focusing on a key area in literature, rhetoric or writing. Major primary works. Students are strongly advised to take proseminars before enrolling in seminars. May be repeated with different content for additional credit. (Same as CPLT 525T)

571T Graduate Seminar: Major Writers (3)

As appropriate to the specialized research and publication of instructor; major figures such as Shakespeare, Dante, Cervantes, Goethe, Bronte, Twain, Joyce, Woolf and Morrison. May be repeated with different content for additional credit. (Same as CPLT 571T)

572T Graduate Seminar: Literary Genres (3)

As appropriate to the specialized research and publication of instructor, major literary types such as the epic, novel, short story, lyric poetry, tragedy, comedy and historical drama. May be repeated with different content for additional credit. (Same as CPLT 572T)

573T Graduate Seminar: Cultural Periods (3)

As appropriate to the specialized research and publication of instructor, the literature of a cultural period from Anglo-Saxon to modern times. May be repeated with different content for additional credit. (Same as CPLT 573T)

574T Graduate Seminar: Special Problems in Literature (3)

As appropriate to the specialized research and publication of the instructor, special problems such as influences on literature, including philosophical, religious, scientific, geographic and other ecological viewpoints. May be repeated with different content for additional credit. (Same as CPLT 574T)

575T Graduate Seminar: Topics in Teaching (3)

Specific topics will vary from semester to semester. May be repeated with different content for additional credit. (Same as CPLT 575T)

579T Graduate Seminar: Problems in Criticism (3)

Historical development and schools of criticism. Individual offerings within this course number may deal with a single critical problem. May be repeated with different content for additional credit. (Same as CPLT 579T)

590 Writing Theory and Practice for Teaching Associates (3)

Prerequisite: ENGL 402 and admission to the English Department Teaching Associate Program. Theory and practice of the composing process for the beginning college teacher of expository writing. Required of all English Department Teaching Associates during their first semester of teaching.

590S Teaching Associate Supervision (1)

Prerequisite: ENGL 590. Supervised teaching of developmental writing and freshman composition. No credit toward the M.A. in English.

591T Seminar: Topics in Rhetoric and Composition (3)

As appropriate to the specialized research of instructor, special topics on rhetoric and composition, including historical and theoretical approaches. May be repeated with different content for additional credit.

595 M.A. Project Writing (3)

Process of writing an M.A. project in literature, rhetoric and composition, or creative writing. To enroll in the course, students must receive prior departmental approval of their M.A. project proposal.

599 Independent Graduate Research (3)

Research projects in areas of specialization beyond regularly offered coursework. Oral and written reports. May be repeated with different content for additional credit.

ENGLISH EDUCATION COURSES

Courses are designated as ENED in catalog.

442 Teaching English in the Secondary School (3)

Prerequisite: admission to teacher education. Principles, methods and materials for teaching English in the secondary school.

449E Externship in Secondary Teaching (3)

Student teaching in the secondary school during the first semester of the teacher preparation program. Candidate plans and teaches assigned lessons during the last third of the semester.

449I Internship in Secondary Teaching (10)

Student teaching in the secondary school during the second semester of the teacher preparation program. Candidate has the same instructional hours of responsibility as the master teacher.

449S Seminar in Secondary Teaching (3)

Taken concurrently with EDSC 449I. Teaching a single subject in secondary schools. Videotape analysis of teaching based on Teaching Performance Assessments. Taken Credit/No Credit. A "B" (3.0) or better is required to receive a grade of credit.

Environmental Studies

College of Humanities and Social Sciences

INTRODUCTION

The master's program in Environmental Studies is a broadly based interdisciplinary program that focuses on human interaction with the environment. The program is geared for students entering or seeking to advance in the rapidly expanding environmental field. Because the scale and scope of environmental issues varies from local and practical to international and theoretical, the program seeks to integrate knowledge and approaches from a range of related disciplines in the sciences, engineering, social sciences and humanities. Topics include sustainability, environmental policy, management, health, pollution, law, philosophy, economics, planning, regulation and education. Given the range of their academic backgrounds, students are encouraged to craft a study plan that meets their own particular career or vocational goals. Students demonstrate their expertise in one of the environmental concentrations by preparing a thesis or project. Students select one of two tracks:

The Environment and Society track addresses the concepts and methods of the social, behavioral and health sciences as applied to environmental policy and planning. Topical concerns include urban and regional planning, environmental health, environmental impact, regulation, law, ethics, economics and environmental education. Students in this track come from many backgrounds, including the natural, health or social and behavioral sciences, or the humanities.

The Environmental Sciences and Technology track deals with applying scientific and engineering principles to environmental issues. Topical concerns include environmental ecology, water and air resources, water management, toxicology and environmental geology. Students in this track typically have a strong background in biology, chemistry, earth science, engineering, geography, geology or mathematics.

LEARNING GOALS AND STUDENT LEARNING OUTCOMES

The following learning goals and outcomes have been established for students pursuing a Master of Science degree in Environmental Studies:

Communication and Leadership Skills

- Write with clarity of thought, expression, style and usage
- Design and present oral presentations that summarize and interpret information in an effective manner
- Demonstrate effective team leadership in a diverse environment

Interpret, Analyze, and Synthesize

- Analyze sustainability through social, economic, and ecological lenses
- Evaluate challenges and develop effective solutions to complex problems

PROGRAM COORDINATOR

John Bock

PROGRAM OFFICE/WEBSITE

Humanities 420A
657-278-4373
http://hss.fullerton.edu/envstud

PROGRAM OFFERED

Master of Science in Environmental Studies

PROGRAM COUNCIL AND THESIS/PROJECT ADVISERS

Gordon Bakken (History), John Bock (Anthropology), David Bowman (Geological Sciences), April Bullock (Liberal Studies), Matt Calarco (Philosophy), Alison Cliath (Sociology), Peter Fashing (Anthropology), John Foster (Geological Sciences), Jane Hall (Economics), A. Scott Hewitt (Chemistry and Biochemistry), William Hoese (Biological Science), Mike Horn (Biological Science), Anne Houtman (Biological Science), Tara Kneeshaw (Geological Sciences), Danny Kim (Health Sciences), Jeff Kuo (Civil Engineering), William Laton (Geological Sciences), Elaine Lewinnek (American Studies), Shari McMahan (Health Sciences), Nga Nguyen (Anthropology), Morteza Rahmatian (Economics), Harold Rogers (Chemistry and Biochemistry), Darren Sandquist (Biological Science), Jochen Schenk (Biological Science), Denise Stanley (Economics), Paul Stapp (Biological Science), Jonathan S. Taylor (Geography), Justin Tucker (Political Science), Robert Voeks (Geography), Jindong Wu (Geography)

Information and Research Skills and Knowledge

- Apply quantitative and qualitative methods as appropriate to environmental research
- Utilize information resources and technology to organize and evaluate environmental research

Ethics

- Evaluate situations in terms of ethical standards and practices
- Exemplify professional conduct characterized by ethical standards

MASTER OF SCIENCE IN ENVIRONMENTAL STUDIES (36 UNITS)

Application Deadlines

The program only admits students in the fall semester of each year. The deadline for completing online applications is March 1 of the year in which a student seeks to begin the program (http://www.csumentor.edu). Mailed applications must be postmarked by the same deadline. However, deadlines may change based upon enrollment projections. Check the university graduate studies website for current information: http://www.fullerton.edu/graduate.

Admission to Graduate Standing – Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of 3.0 in the last 60 units of coursework attempted. In addition, two letters of recommendation are required, at least one of which must come from a college or university.

Because the program accepts students as a cohort, the size of the cohort will limit the number of applicants accepted. Applicants' interests much match those of the faculty advisers. Students must indicate potential advisers in their letters of intent (review faculty adviser interests at: http://hss.fullerton.edu/evnstud/) and should contact potential advisers prior to submitting applications. Prerequisites for admission differ, depending on the selected track.

The Environment and Society track: one undergraduate course in ecology; one course in quantitative methods.

Environmental Sciences and Technology track: nine upper-division units in the natural and/or physical sciences, mathematics and/or engineering. Students without these prerequisites may be admitted provisionally, but must take these courses during their first year. In addition, students must be assigned an adviser upon entry. Additional requisites may be established at the discretion of the adviser.

Graduate Standing – Classified

After completing no more than nine semester units of adviser-approved coursework and developing an approved study plan, the student must apply for classified standing.

STUDY PLAN

Core Courses (9 units)

ENST 500 Environmental Issues and Approaches (3)

ENST 510 Environmental Evaluation and Protection (3)

ENST 520 Environmental Research and Analysis (3)

Electives (9-15 units), chose from:

ENST 595T Selected Topics in Environmental Problems (3)

ENST 596 Internship in Environmental Studies (3)

ENST 599 Independent Graduate Research (1-3)

Cross-Disciplinary Electives (9-15 units)

Courses outside Environmental Studies are chosen with prior approval of the faculty adviser and graduate program adviser. The graduate program adviser will maintain a list of acceptable electives. No more than 12 units can be taken from the undergraduate major department.

Planning Requirement

A three unit planning course must be included, either from environmental studies electives or cross-disciplinary electives.

Thesis or Project (3 units)

All Environmental Studies students are required to register in ENST 597 or 598. Students may only register for this course once. If they do not complete their project or thesis within this semester, they will be assigned a grade of RP for the course until a letter grade can be assigned. Since students are required to maintain continuous enrollment, they must register in GRAD 700, either through University Extended Education (UEE) or CSUF. Students may only enroll in GRAD 700 through UEE for one semester if they are working on a project, and for two semesters if they are working on a thesis.

For further information, consult the graduate program associate coordinator.

ENVIRONMENTAL STUDIES COURSES

Courses are designated as ENST in the class schedule

500 Environmental Issues and Approaches (3)

Prerequisite: graduate standing in Environmental Studies. Interdisciplinary approaches to environmental problems and research methods. Students prepare seminars and papers on research design for potential thesis topics. Meets graduate writing requirement.

510 Environmental Evaluation and Protection (3)

Prerequisite: graduate standing in Environmental Studies. Environmental parameters (water, air, solid wastes, noise, radiation, etc.). Techniques in monitoring and measurement; effect on human health; environmental quality standards and controls. Demonstrations and field trips.

520 Environmental Research and Analysis (3)

Prerequisite: graduate standing in Environmental Studies. Research methods used in environmental studies. Research tools used in such areas as environmental field studies, environmental experiments, social environmental impacts, environmental attitudes and behavior, and environmental trend analysis.

595T Selected Topics in Environmental Problems (3)

Prerequisite: graduate standing in Environmental Studies. Various environmental topics, contemporary or historic, that focus on problems (e.g., law, endangered habitats, planning, global environmental issues, etc.) Topic chosen and outline will be circulated prior to registration. One or more sections offered online. May be repeated four times (with different topics) for credit.

596 Internship in Environmental Studies (3)

Prerequisite: graduate standing in Environmental Studies. Field experience with a governmental or private agency.

597 Project (3)

Prerequisites: classified status in Environmental Studies program and consent of project adviser and program coordinator. Planning, preparing and completing an acceptable, interdisciplinary project. Credit on submission of project and presentation of research findings in a poster session organized by the Environmental Studies Program.

598 Thesis (3)

Prerequisites: classified status in Environmental Studies program and consent of instructor and program coordinator. Planning, preparing and completing an acceptable, interdisciplinary thesis. Credit on submission of thesis.

599 Independent Graduate Research (1-3)

Prerequisites: graduate standing in Environmental Studies and consent of instructor and program coordinator.

European Studies

College of Humanities and Social Sciences

PROGRAM COORDINATOR

Cora A. Granata (History)

PROGRAM OFFICE/WEBSITE

Humanities 815F
657-278-3568
http://hss.fullerton.edu/history/european

PROGRAMS OFFERED

Bachelor of Arts in European Studies
Minor in European Studies

PARTICIPATING FACULTY

Renae Bredin (Women's Studies), Gayle Brunelle (History), Jochen Burgtorf (History), Angela Della Volpe (College of HSS), Nancy Fitch (History), Joe Gonzalez (Liberal Studies), Cora A. Granata (History), Ben Hubbard (Comparative Religion), Steven Jobbitt (History) Irene Lange (International Business), Paul Levesque (Comparative Religion), Wayne Engstrom (Geography), Robert McLain (History), Valerie O'Regan (Political Science), Susan Parman (Anthropology), Kenneth Ravissa (Kinesiology), Jared Rubin (Economics), Lynn Sargeant (History), Alexei Shevchenko (Political Science), Steve Walk (Kinesiology), Larry Ward (Communications), most regular faculty members in the Department of English, Comparative Literature and Linguistics, most regular faculty members in Modern Languages and Literatures who specialize in European languages, and most regular faculty members in the Philosophy Department.

INTRODUCTION

European Studies offers an interdisciplinary approach to the study of Europe. This gives students the opportunity to explore a dynamic, multicultural world region without being confined to the perspective of one discipline. The program provides broad historical background in the political, economic, social and cultural composition of today's Europe, while setting the study of Europe within a global context. This depth of study allows students to discern and gain insights from multiple disciplines that are most beneficial to their career goals. This is an ideal program for student whose interests and career objectives are in areas such as business, journalism, entertainment, government service, law or education, as well as those who plan to study some aspect of the European experience at the graduate level. It would also be a good choice for students seeking teaching credentials.

LEARNING GOALS AND STUDENT LEARNING OUTCOMES

The following goals and student learning outcomes apply to students pursuing the B.A. in European Studies:

Knowledge

- Understand holistically the historical development of European politics, economics, society, and culture

Cultural diversity in Europe

- Recognize and analyze the contributions of cultural diversity to Europe's past and present

Europe in a Global Context

- Relate European regional developments to the global forces shaping developments in other world regions

Interdisciplinarity

- Identify the particular approaches of specific academic disciplines that study Europe
- Evaluate the advantages and disadvantages of specific disciplinary approaches to regional studies
- Synthesize from across the humanities and social sciences the multiple disciplinary approaches to the regional study of Europe

Effective Written and Oral Communication

- Communicate both in writing and orally in a stylistically and grammatically correct manner in order to articulate the information learned in the program

Critical Thinking

- Think critically and comprehend, analyze, and synthesize information from a variety of primary and secondary sources, including written sources, images, and film

BACHELOR OF ARTS IN EUROPEAN STUDIES (120 UNITS)

The Bachelor of Arts in European Studies requires 39 units in the major, including a required set of core courses (18 units) and an elective component (21 units). At least 12 but not more than 15 units in the elective component must be drawn from one of the five advisement tracks: (1) European Culture, Religion and Philosophy; (2) European Fine Arts and Literatures; (3) European History, Politics and Society; (4) Communications, Business and Economics in Europe; and (5) Thematic Plan in European Studies.

Required Core Courses (18 units)

Geography (3 units)

GEOG 336 Europe (3)

History (3 units)

ANTH 320 Cultures of Europe (3)

ECON 351 European Economic History (3)

HIST 320 Modern European History (1789-present) (3)

POSC 330 Politics in Nation-States (3)

Upper-Division European Language Requirement (6 units minimum)

With the approval of the Program Coordinator, students wishing to pursue European languages other than those offered at CSUF may satisfy these requirements by enrolling in comparable courses at other CSU or UC campuses or by transferring credits from other accredited language programs. Students may also meet the language requirement by passing a proficiency exam administered by the European Studies Program Coordinator.

Composition and Grammar (3 units)

One course in advanced composition and grammar in a European language other than English.

FREN 307 Advanced Composition and Grammar (3)
OR FREN 308 Advanced Composition and Grammar (3)

GRMN 305 Advanced Conversation and Composition (3)

PORT 317 Advanced Conversation and Composition (3)

SPAN 301 Advanced Grammar and Composition (3)

Upper-Division Specialty Course (3 units)

One advanced Modern Languages and Literatures specialty course selected from those listed in the student's advisement track.

Upper-Division Writing Requirement (3 units)

European Studies does not offer its own upper-division writing course. Instead, students take an approved writing course in one of the program's constituent departments. For a European Studies major with a declared minor, the writing course in that minor will satisfy this requirement. For double majors, the writing requirement will be satisfied by taking the writing course in the second major.

European Studies Senior Colloquium (3 units)

EUST 490 European Studies Senior Colloquium (3)

Upper-Division Elective Courses (21 units)

Established department prerequisites for courses in the advisement tracks will not be waived for European Studies students. Special topics, variable topics, and new courses, when such courses deal in some significant way with the European experience, may be approved for European Studies credit at the discretion of the Program Coordinator.

Advisement Tracks are designed to help students in their career and educational planning. The tracks represent central concentrations within the field of European Studies. While students gain their core knowledge of the category "Europe" by taking the European Studies Core Requirements, the advisement tracks allow students to develop further specialization in one of five central aspects of the European experience.

ADVISEMENT TRACK ONE – EUROPEAN CULTURE, RELIGION AND PHILOSOPHY (12-15 UNITS)

This track is particularly useful for students whose career objectives are in education, as well as those who plan to study some aspect of the European experience at the graduate level. Students choosing Advisement Track One gain expertise in the changing, contested definitions of European cultural identity. They have the opportunity to examine further the philosophical and religious underpinnings of European culture and to explore how Europeans have defined cultural insiders and outsiders based on ethnicity, race, religion, class and gender.

AFRO 335

ANTH 320 (unless selected to fulfill core requirements)

CPRL 351, 352, 361, 362

FREN 315, 325

GRMN 315, 325

KNES 380, 381

PHIL 300, 301, 303, 311, 323, 324, 345, 348, 355, 380, 381, 382, 383, 410, 420, 430, 440

PORT 320

SPAN 315, 415

WMST 302

ADVISEMENT TRACK TWO – EUROPEAN FINE ARTS AND LITERATURE (12-15 UNITS)

This track is particularly useful for students whose career objectives are in the fine arts, entertainment, as well as those who plan to study some aspect of the European experience at the graduate level. Students choosing Advisement Track Two gain expertise in the production and analysis of high cultural artifacts in art, literature, music, oratory, and theatre. This track also allows students to examine the works of cultural minorities and women in fine arts and literature.

ART 301, 302, 311, 312, 320, 401, 413, 431

CPLT 315, 373, 374, 450 , 451

ENGL 315, 316, 317, 374, 416, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 462, 463, 464, 465, 466, 467, 491, 492

HCOM 430 , 432

Modern Languages and Literatures – Any adviser-approved upper-division course taught in a European language other than English. (3 or more)

MUS 305, 351A, 351B, 351C, 456, 457A, 457B

THTR 388, 475A, 475B, 475C, 475E

ADVISEMENT TRACK THREE – EUROPEAN HISTORY, POLITICS AND SOCIETY (12-15 UNITS)

This track is particularly useful for students whose career objectives are in government service, law, as well as those who plan to study some aspect of the European experience at the graduate level. Students choosing Advisement Track Three gain further expertise in the historical evolution of European political institutions and social relations. This track also allows students to examine European ethnic, gender, and class relations from historical, political and sociological perspectives.

CRJU 450

FREN 315, 325

GRMN 315, 325

HIST 311, 320 (unless selected to fulfill core requirements), 331, 395, 412A, 412B, 412C, 415A, 417A, 417B, 420, 423A, 423C, 424T, 425A, 425B, 428A, 429A, 429B, 430A, 432, 433A, 433B, 434A, 434B, 435A, 436A,

POSC 330 (unless selected to fulfill core requirements), 340, 350, 438 , 457, 461, 476

PORT 320

PSYC 408

SOCI 410

SPAN 315, 415

ADVISEMENT TRACK FOUR – COMMUNICATIONS, BUSINESS AND ECONOMICS IN EUROPE (12-15 UNITS)

This track is particularly useful for students whose career objectives are in business, journalism, as well as those who plan to study some aspect of the European experience at the graduate level. Students choosing Advisement Track Four develop further expertise in the changing impact of European economic integration on global trade, communications and finance.

COMM 426

ECON 330, 331, 335, 351 (unless selected to fulfill core requirements), 411, 431, 450

FIN 370

FREN 310, 311, 407

GRMN 310, 311, 482

HCOM 432

MGMT 346, 350 , 480

MKTG 445, 475, 489

PORT 310

RTVF 370

SPAN 310, 311, 407

ADVISEMENT TRACK FIVE – THEMATIC PLAN IN EUROPEAN STUDIES (12-15 UNITS)

This track is useful for students with specialized individual career goals or those with career plans in education. Students must develop their thematic plan in conjunction with the Program Coordinator to insure that their course of study meets European Studies learning goals.

Option 1 – Individualized plan of study to be developed in conjunction with European Studies Program Coordinator.

Option 2 – Open to Liberal Studies students only. Individualized plan of study to be developed in conjunction with Liberal Studies adviser and European Studies Program Coordinator.

MINOR IN EUROPEAN STUDIES

The minor consists of 19 upper-division units including a required set of core courses (10 units) and an elective component (9 units).

Required Core Courses (10 units)

Geography (3 units)

GEOG 336 Europe (3)

History (3 units)

ANTH 320 Cultures of Europe (3)

ECON 351 European Economic History (3)

HIST 320 Modern European History (1789-present) (3)

POSC 330 Politics in Nation-States (3)

Upper-Division Foreign Language Composition and Grammar (3 units)

One course in advanced composition and grammar in a European language other than English. With the approval of the Program Coordinator, students wishing to pursue European languages other than those offered at CSUF may satisfy these requirements by enrolling in comparable courses at other CSU or UC campuses or be transferring credits from other accredited language programs. Students may also meet the language requirement by passing a proficiency exam administered by the European Studies Program Coordinator.

FREN 307 Advanced Composition and Grammar (3)
OR FREN 308 Advanced Composition and Grammar (3)

GRMN 305 Advanced Conversation and Composition (3)

PORT 317 Advanced Conversation and Composition (3)

SPAN 301 Advanced Grammar and Composition (3)

European Studies Senior Colloquium (1 unit)

EUST 490 European Studies Senior Colloquium (1)

Upper-Division Elective Courses (9 units)

Students may choose to take any of the courses listed as electives for the major.

EUROPEAN STUDIES COURSES

Courses are designated as EUST in the class schedule.

490 European Studies Senior Colloquium (1-3)

Course open only to European Studies majors and minors with senior standing who have completed 6 units of European Studies Required Core Courses. Senior capstone seminar requires majors and minors to assemble a portfolio of prior work in European Studies and majors to complete an additional original research paper/project that deals in some way with a problem or challenge facing Europe today.