

# Colleges



# College of the Arts



*“More than anything else, the excellence of our programs can be seen in our people – the faculty, staff, students and graduates. Their presence is perhaps the strongest recommendation to be made for pursuing the arts at Cal State Fullerton.”*

**Dean Jerry Samuelson**  
COLLEGE OF THE ARTS

## **DEAN**

Jerry Samuelson

## **ASSOCIATE DEAN**

Joseph Arnold

## **ASSISTANT DEAN, STUDENT AFFAIRS**

Andi Sims

## **DEAN'S OFFICE**

Visual Arts 199  
657-278-3256

## **COLLEGE WEBSITE**

<http://www.fullerton.edu/arts>

The learning opportunities within the College of the Arts are based on a commitment to artistic and academic excellence. We provide an environment that encourages individual achievement for performers, artists and scholars.

Within the broader university liberal arts environment, the College of the Arts offers intensive programs in Art, Music, Theatre and Dance. We are also committed to the enhancement of artistic awareness of all students.

We extend a warm welcome to you, and we promise that with your perseverance, we will do everything possible to further your goals and objectives in whatever field of the arts you choose.

Academic advisement is available through the departments. Faculty advisers are available to assist students with career decisions and degree requirements.

Several scholarships are available to students in the College of the Arts. Inquiries should be made to the respective department offices.

## **PROGRAMS OFFERED**

Art, Bachelor of Arts

Art History

General Studio Art

Teaching–Single Subject Preparation

Art, Bachelor of Fine Arts

Ceramics

Crafts

Creative Photography

Drawing and Painting

Entertainment Art/Animation

Graphic Design  
 Illustration  
 Printmaking  
 Sculpture  
 Art, Minor  
 Art, Master of Arts  
     Design  
     Drawing and Painting (Printmaking)  
     Sculpture  
     Crafts (including Ceramics, Glass, Wood,  
         Jewelry/Metalsmithing)  
     Design (including Graphic Design, Illustration, Exhibition  
         Design, Creative Photography)  
     Art History  
 Art, Master of Fine Arts  
     Drawing, Painting and Printmaking  
     Sculpture  
     Ceramics (including Glass)  
     Crafts (including Jewelry/Metalsmithing and Woodworking)  
     Design (including Graphic Design, Illustration and  
         Exhibition Design)  
     Creative Photography  
 Art, Museum Studies, Certificate  
 Dance, Bachelor of Arts  
 Music, Bachelor of Arts  
     Liberal Arts  
     Music Education  
     Music History and Theory  
 Music, Bachelor of Music  
     Composition  
     Classical Guitar  
     Instrumental  
     Jazz and Commercial Music  
     Keyboard  
     Voice  
     Accompanying  
 Music, Minor  
 Music, Master of Arts  
     Music History and Literature  
     Music Education  
     Piano Pedagogy  
 Music, Master of Music  
     Performance  
     Theory-Composition  
 Music, Single Subject (Secondary) Credential  
 Theatre Arts, Bachelor of Arts  
     Liberal Arts  
     Production/Performance  
         Directing  
         Playwriting  
         Technical Production/Design  
     Teaching  
 Theatre Arts, Bachelor of Fine Arts  
     Acting  
     Musical Theatre  
 Theatre Arts, Master of Fine Arts  
     Acting  
     Directing  
     Design and Technical Production

# Mihaylo College of Business and Economics



*“Welcome to the premier public university business school in Orange County. Our impact stems from our immense presence in the region and strong links to the economic progress of the area. As California’s largest AACSB-accredited business school, the college prepares an unmatched number of graduates for success in the workplace, and our faculty, staff and students work with business leaders to advance the fortunes of businesses in Orange County and Southern California.”*

**Dean Anil K. Puri**

MIHAYLO COLLEGE OF BUSINESS AND ECONOMICS

## **DEAN**

Anil K. Puri

## **ASSOCIATE DEAN, ACADEMIC PROGRAMS AND FACULTY DEVELOPMENT**

Mark Hoven Stohs

## **ASSOCIATE DEAN, ADMINISTRATION**

Joni Norby

## **ASSISTANT DEANS**

Robert Miyake, Academic Services  
Emeline Yong, Student Affairs

## **DEAN’S OFFICE**

Steven G. Mihaylo Hall 3100  
657-278-4652

## **COLLEGE WEBSITE**

[www.business.fullerton.edu](http://www.business.fullerton.edu)

## **VISION AND MISSION STATEMENTS**

### **Vision Statement**

We will be the choice of Southern California’s businesses and governments for college graduates, business solutions and professional development.

### **Mission Statement**

We create and apply knowledge that transforms student lives, develops business leaders who shape the regional economy and advances the intellectual capital of our diverse region.

Mihaylo College’s educational program instills in our vast corps of graduates core business knowledge and flexible critical thinking and motivation, thereby putting our students in a position to contribute to the success of regional business. As the only Orange County business school with AACSB accreditation in Business Administration and Accounting at both the undergraduate and graduate level, we provide:

A practical and applied curriculum. When students receive their diplomas, they will be able to quickly translate their education into a good job and success in the workplace. Students and alumni of our program are “ready to work” and prepared to make contributions to their organizations from their first days on the job.

A global perspective. Students gain an international perspective from a culturally and ethnically rich student body, a diverse faculty and global academic and business community partners.

State-of-the-art technology. Students will keep pace with e-commerce and evolving business information systems through a mix of educational tools, instructional technology and technological partners.

Value. By being affordable, accredited and practical, Mihaylo College defines value in education and keeps pace with today’s economy.

## PROGRAMS OFFERED

Accountancy, Master of Science  
Business Administration, Bachelor of Arts  
Accounting  
Business Economics  
Entertainment and Tourism Management  
Entrepreneurship  
Finance  
Information Systems  
Management  
Management Science  
Marketing  
Joint Emphasis in Accounting and Finance  
Business Administration, Minor  
Business Administration (MBA)  
Accounting  
Business Economics  
Business Intelligence  
Entrepreneurship  
Finance  
Information Systems  
International Business  
Management  
Management Science  
Marketing  
Joint Emphasis in Accounting and Finance  
Economics, Bachelor of Arts  
Economics, Minor  
Economics, Master of Arts  
Entrepreneurship, Minor  
Information Systems, Minor  
Information Systems, Master of Science  
Decision Sciences  
Business Intelligence  
Information Technology, Master of Science

International Business, Bachelor of Arts  
Chinese  
French  
German  
Japanese  
Portuguese  
Spanish  
Taxation, Master of Science

## ACCREDITATION

The Mihaylo College of Business and Economics holds dual accreditation in business administration and accounting from AACSB International, the premier accrediting body for university business programs in the world. Our program is the only University in Orange County, and one of five in California to hold this prestigious level of dual accreditation. Our accreditation assures that students receive a high quality education, delivered by the most qualified faculty, all from a College that has met the highest standards in business education.

## CENTERS OF EXCELLENCE

In support of our mission, the Steven G. Mihaylo College of Business and Economics sponsors Centers of Excellence that address issues in the community, provide services to government and business, and provide academic and practical learning experiences and connections for our students.

Center of Corporate Reporting and Governance  
Center for Economic Education  
Center for Entrepreneurship  
Center for Insurance Studies  
Center for International Business  
Center for the Study of Emerging Financial Markets  
Family Business Council  
Center for the Forum for Advanced Security Technologies  
Institute for Economic and Environmental Studies  
International Center of Economics of Pharmaceuticals, Aging and Health  
Real Estate and Land Use Institute  
Sales Leadership Center  
Small Business Development Center  
Small Business Institute

## **MIHAYLO COLLEGE OF BUSINESS AND ECONOMICS SCHOLARSHIPS**

### **Michael A. Reagan Graduate Scholarship for Outstanding Incoming Graduate Students**

The Michael A. Reagan Scholarship is awarded each semester to newly admitted graduate students in Mihaylo College of Business and Economics who have demonstrated academic excellence in their undergraduate studies. Recipients of these \$4,000 non-need based scholarships receive this one-time award disbursed in two installments over consecutive semesters. Applicants to the MBA, MS in Accountancy, MS in Information Systems, MS in Information Technology, MS in Taxation and MA in Economics with outstanding undergraduate academic records are encouraged to apply. Multiple awards are given in both fall and spring semesters. For further information and application information, please go to [www.business.fullerton.edu/graduateprograms/costs/Scholarships.htm](http://www.business.fullerton.edu/graduateprograms/costs/Scholarships.htm) or call the Graduate Programs Office at 657-278-3622.

### **General Scholarships**

Stephen J. Barres Leadership Award

Dean's Advisory Board Awards

College of Business and Economics Alumni Scholarship

Executive Council Outstanding Student Award

Faith Guthrie Endowed Memorial Scholarship

Samuel Mendoza Memorial Scholarship

Professor for a Day Scholarship

Theodore H. Smith Outstanding Graduate Student Award

Frank P. Stanek Continuing Junior Scholarship

Kathleen Taylor Business Scholarship

Francisco J. Valle Scholarship

For more awards listed under each department, please refer to [www.fullerton.edu/financialaid/scholar/baebody1.htm](http://www.fullerton.edu/financialaid/scholar/baebody1.htm). For further information and application information, please contact the Assistant Dean for Student Affairs at 657-278-4577.

### **BUSINESS HONORS PROGRAM**

The Business Honors Program provides high-potential students special opportunities for academic challenge, unique in-class and out-of-classroom learning opportunities and individualized career planning and development. Students in the program take honor courses in the business program that are smaller than regular classes, where active discussion and imaginative learning experiences are encouraged, and individual attention from professors is the norm. Students also have special out-of-classroom opportunities to participate in seminars, study abroad, internships, service learning, and directed research projects.

Students in the Business Honors Program belong to an exclusive group of students who are among the most talented in Cal State Fullerton's Mihaylo College of Business and Economics. Students who successfully complete the Business Honors Program receive special recognition on their diploma and transcripts visible for all future employers and shall be awarded Certificate of Honors upon graduation.

The Business Honors program is open to new entering freshmen and upper-division transfer students who have demonstrated prior academic excellence, leadership and service. For further information, eligibility requirements and procedures to apply, please visit the Business Honors website at [www.business.fullerton.edu/honors](http://www.business.fullerton.edu/honors)

### **STUDENT ORGANIZATIONS**

Chapters of the following national honor societies have been established on campus with membership open to qualified students: Beta Alpha Psi (Accounting), Beta Gamma Sigma (Business) and Phi Kappa Phi (all majors). In addition, students are encouraged to join the following clubs/organizations: Accounting Society (AS), American Marketing Association (AMA), Association of Information Technology Professionals (AITP), Delta Sigma Pi (DSP - Professional Business Fraternity), Economics Association (EA), Finance Association (FA), Future Business Leaders of America - Phi Beta Lambda (FBLA-PBL), Gamma Iota Sigma (GIS) - Insurance Risk Management, Latino Business Student Association (LBSA), MBA Association, Real Estate Association (REA), Society for the Advancement of Management (SAM) and Young Entrepreneur Society (YES). Students can also participate in the Business Inter-Club Council (BICC), the coordinating board for all the business clubs and organizations. The Council provides resources and assistance to club representatives and enforces guidelines and procedures for governance and registration. This Council interacts with other campus government boards.

### **STEVEN G. MIHAYLO HALL AND INFORMATION SERVICES**

Opened in fall 2008, the Steven G. Mihaylo Hall is the new home for the College. Designed specifically to enhance learning and collaborative interaction, the building provides students and faculty with the most technologically advanced classrooms, interactive labs and collaborative working spaces.

The College's Information Services department supports the full spectrum of technology services and solutions to students, faculty and administration. The department provides wireless access throughout, open computer labs, and access to the latest professional business software and data bases.

## **BUSINESS ADVISING CENTER**

### **Undergraduate Program Advising -**

**Steven G. Mihaylo Hall 1201**

The Business Advising Center serves business administration, economics and international business majors. Information is available on admissions, curriculum and graduation requirements, as well as on registration and grading procedures, residence and similar academic matters. Transfer students must see an adviser immediately upon admission regarding transfer credit. For information on general education, consult the Academic Advisement Center.

### **Graduate Program Advising -**

**Steven G. Mihaylo Hall 3280**

Graduate advisers provide academic advising for the graduate programs in accountancy, business administration, information systems and taxation. Information is available on admissions, curriculum and graduation requirements, as well as on registration procedures, residence and similar academic matters. For information on admission, curriculum and graduation requirements for the M.A. in Economics, see the graduate program adviser in the Economics department.

Students should also consult the faculty advisers for the programs in accountancy, information systems and taxation.

## **INTERNSHIPS AND COOPERATIVE EDUCATION**

Students may earn academic credit, first-hand work experience and financial remuneration as well. Opportunities exist in accounting and auditing; cost-benefit analysis and econometrics; finance and real estate; insurance and banking; management and industrial relations; marketing, sales and advertising; and business data systems. For more information, consult the internship adviser in your department or in the Center for Internships and Service Learning.

## **INFORMATION ON DEGREE REQUIREMENTS**

Information on degrees is located in the following department and program listings:

### Accounting:

Accountancy, M.S.

Taxation, M.S.

### Business Administration:

Business Administration, B.A.

Business Administration, Minor

Business Administration, MBA

### Economics:

Economics, B.A.

Economics, Minor

Economics, M.A.

### International Business:

International Business, B.A.

### Information Systems and Decision Sciences:

Information Systems, M.S.

Information Technology, M.S.

# College of Communications



*“The College of Communications provides an excellent learning environment with nationally recognized faculty and modern laboratory facilities. Students are welcomed into a supportive environment that consists of computerized writing, editing photo and graphics labs; a cutting edge media facility providing digital content production, broadcast and streaming services; a speech and hearing clinic; a presentation lab and a newspaper and magazine production complex.”*

**Dean Rick D. Pullen**  
COLLEGE OF COMMUNICATIONS

**DEAN**

Rick D. Pullen

**ASSOCIATE DEAN**

S. Irene Matz

**ASSISTANT DEAN, STUDENT AFFAIRS**

Peggy Garcia Bockman

**DEAN'S OFFICE**

College Park Building, Suite 450  
657-278-3355

**COLLEGE WEBSITE**

<http://communications.fullerton.edu>

The College of Communications is committed to advancing a democratic society by preparing students to function in a wide variety of communication professions. With a strong tradition in the liberal arts and social sciences, the academic programs of the College share a common theoretical base which identifies the elements of human communication and the principles governing their use in all communicative processes essential to contemporary society, namely, the spoken and written word and visual images. Specialized programs in advertising, argumentation and persuasion, communication theory and process, intercultural, interpersonal, organizational communication, communication studies, communicative disorders, journalism, photocommunications, public relations, entertainment and tourism and radio-television-film make up the basic curricula of the College. These programs of study lead to traditional academic degrees for undergraduates and graduates, to state credentials and licenses, to professional certification and to entry into graduate and professional degree programs.

Academic programs in the College of Communications prepare students to function as professionals in the fields of business, education, government, entertainment and in media and health related careers. Ancillary educational experiences are available through the campus daily newspaper, audio and video production, post-production studios, television facility, forensics program, speech and hearing clinic, the Center for Children who Stutter, Tusk magazine and internships in professional settings.

The College is dedicated to the principles of academic excellence and sees its fundamental mission as preparing citizens to function as effective communicators who practice their disciplines in accordance with the highest ethical codes of professional and personal conduct.



## **PROGRAMS OFFERED**

Communications, Bachelor of Arts

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

Communications, Minor

- Advertising
- Journalism
- Public Relations

Communications, Master of Arts

- Professional Communications
- Mass Communications Research and Theory

Communicative Disorders, Bachelor of Arts

- Speech Pathology
- Audiology
- Speech/Language Development
- Intercultural Clinic Practice
- Aphasia and Adult Therapy
- Phonology

Communicative Disorders, Master of Arts

Speech Communication, Bachelor of Arts

- Argumentation and Persuasion
- Intercultural Communication
- Interpersonal Communication
- Organizational Communication

Speech Communication, Minor

Speech Communication, Master of Arts

Radio-TV-Film, Bachelor of Arts

- Criticism
- Production
- Writing

Radio-TV-Film, Minor

## **STUDENT ORGANIZATIONS**

The College of Communications supports a large number of student organizations and activities that provide a wide variety of preprofessional opportunities for academic advancement. They include: the Advertising Club; Comm Grads: Communications Week; Daily Titan; Debate (forensics); Entertainment and Tourism; International Association of Business Communicators; National Press Photographers Association; National Student Speech-Language-Hearing Association; Public Relations Student Society of America; Society of Professional Journalists; Titan Internet Radio; Tusk Magazine; and TV-Film Society.

## **ACCREDITATION**

The Department of Communications is accredited by the Accrediting Council on Education in Journalism and Mass Communications. The Communicative Disorders program in the Department of Human Communication Studies is accredited by the American Speech-Language-Hearing Association.

## **INTERNSHIPS**

A wide variety of student internships is available throughout Southern California. In the Department of Communications, students are required to complete an internship, unless specifically waived from doing so, normally as the culminating undergraduate experience. The Human Communication Studies' internship is optional and normally taken sometime in the junior or senior year.

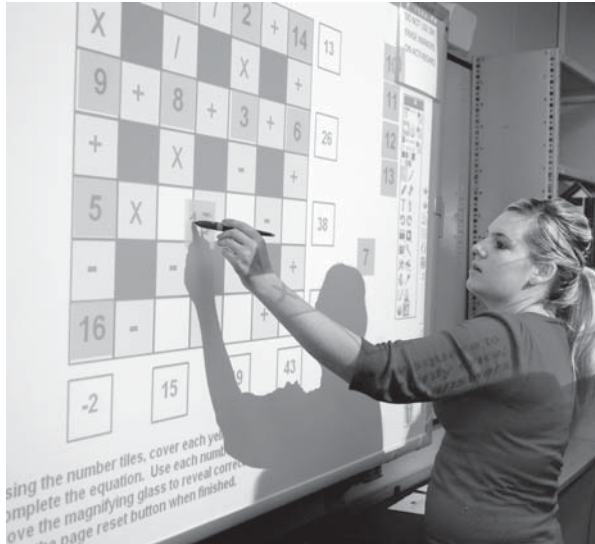
## **SCHOLARSHIPS AND AWARDS**

Some \$30,000 in scholarships and awards are presented annually to students in the College of Communications. Among the sponsors of scholarships are the Advertising Club of Orange County, the Los Angeles Angels of Anaheim, the Hearst Foundation, the Orange County chapter of the Public Relations Society of America and the Society of Professional Journalists. Awards annually are presented to students who excel in academic and pre-professional activities in the three departments.

## **FACILITIES**

The College of Communications is equipped with modern laboratory facilities including a state-of-the-art speech and hearing clinic; photography studio; teaching labs for writing and graphics with more than 200 upgraded and networked workstations; television and sound studios and control rooms; video and audio production, postproduction, storage and streaming facilities; a daily newspaper newsroom and production area; Internet radio; dedicated multi-media network and quality video-on-demand and multicasting facilities.

# College of Education



*“The mission of the College of Education is to prepare high quality educators and leaders who engage in research-based instruction and reflective practice, meet ethical and professional standards, participate in innovative collaborative endeavors, are committed to lifelong learning, are dedicated to making the world a better place through education, and whose actions reflect valuing diversity. The College has an exceptional and diverse faculty and staff committed to excellence in teaching, scholarship and service. Through rigorous inquiry, they look to expand the realm of knowledge about teaching, learning and educational leadership.”*

**Dean Claire C. Cavallaro**  
COLLEGE OF EDUCATION

## **DEAN**

Claire C. Cavallaro

## **ASSOCIATE DEAN**

Carmen Zuniga Dunlap

## **ASSISTANT DEAN**

Aimee Nelson

## **DEAN'S OFFICE**

College Park 500  
657-278-3411

## **COLLEGE WEBSITE**

<http://ed.fullerton.edu>

The College provides educators, leaders and professionals in various learning environments with the ability to apply critical and informed thinking to professional practice and problem-solving and to use these skills and attributes to become change agents in their schools, communities and other work places. The College prepares undergraduate students to become active and critical thinkers in order to meet academic requirements related to university learning.

The College of Education is organized into the following departments: Educational Leadership, Elementary and Bilingual Education, Reading, Secondary Education and Special Education. In addition, there is an Instructional Design and Technology program for graduate students, and a Doctor of Education program.

## **PROGRAMS OFFERED**

- California Reading Certificate
- Certificate, Instructional Design and Technology
- Certificate, Postsecondary Reading and Learning
- Doctor of Education in Educational Leadership
- Education, Master of Science
  - Bilingual/Bicultural Education (Spanish-English)
  - Educational Administration
  - Elementary Curriculum and Instruction Reading
  - Secondary Education
  - Special Education

Teaching English to Speakers of Other Languages (For further information refer to the Department of Modern Languages and Literatures section of this catalog.)

Master of Science in Instructional Design and Technology

Teaching Credential (See Teaching Credential Programs section of this catalog)

## **ACCREDITATION**

The College of Education offers high quality programs that meet state and national accreditation standards. The accreditation bodies for the college include:

- California Commission on Teacher Credentialing
- National Council for Accreditation of Teacher Education

## **STUDENT ORGANIZATIONS**

The College of Education supports a variety of student organizations. These include: The Council of Educational Leadership Students; the Education InterClub Council; the Reading Educators Guild; Student California Teachers Association; and the Student Council for Exceptional Children.

## **SCHOLARSHIPS AND AWARDS**

The College of Education offers the following scholarships:

Alumni Association Scholarship for the College of Education: \$1,000

Ballentine Scholarship: \$1000

Emma Bauman Holmes – Master’s Program in Curriculum and Instruction: \$1,000

Emma Bauman Holmes – Multiple Subject Credential Program: \$1000

Brenneman Scholarship: \$1000

Marilyn C. Brewer Scholarship: \$3,500

The College of Education Book Scholarship: \$500

Cracchiolo Award: \$1000

Founders Scholarship: \$1000

Lorenz & Ruth Graham Memorial Scholarship: \$500

Lewis and Deborah Hancock Scholarship in Reading Education: \$500 (dependent upon funding)

Miriam K. Herman Scholarship: Two \$500 awards (subject to funding)

Honor an Educator Scholarship: \$1000

Dorothy C. Klausner Scholarship: \$500 (dependent upon funding)

Krausman Scholarship: \$1000

The Ernest G. Lake Endowed Scholarship: \$400 (subject to funding)

Robert Liebl Scholarship: \$2000

MSIDT Alumni Association Scholarship: \$500

Mildred Ransdorf Donoghue Education Scholarship for the Master’s in Elementary Curriculum & Instruction: \$500 (subject to funding)

Mildred Ransdorf Donoghue Education Scholarship for the Elementary Credential: \$500 (subject to funding)

Reading Educators Guild (REG) Scholarship: \$500

Fannie Shaftel Scholarship: \$500 (subject to funding)

The Bernhard J. and Vivian W. Strand Scholarship: \$1000

The California Retired Teachers Association Scholarship honoring Founder Laura E. Settle: \$2000

Full details regarding scholarship requirements and application deadlines can be found at the College of Education Office (CP 500).

## **CREDENTIAL ADVISEMENT**

Students seeking a Multiple Subject, Single Subject or Special Education credential should attend an overview before submitting an application. Information on overview schedules is available in CP 500 or at <http://ed.fullerton.edu/adtep>.

## **GRADUATE ADVISEMENT**

Graduate students should consult the graduate adviser in their major department before registering for the first semester. No more than nine units may be completed before an approved study plan is filed.

# College of Engineering and Computer Science



*“Our mission is simple. We want to educate engineers and computer scientists who will graduate with state-of-the art knowledge in their chosen field and are ready to embark on careers in industry and government, or proceed to acquire advanced degrees in their own or related fields. More and more of our graduates are also interested in being entrepreneurs, thanks to the success of so many young people on the West Coast who have become successful in creating wealth via technology.”*

**Dean Raman Menon Unnikrishnan**

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

## **DEAN**

Raman Unnikrishnan

## **ACTING ASSOCIATE DEAN**

Susamma Barua

## **DEAN'S OFFICE**

Computer Science 502  
657-278-3362

## **COLLEGE WEBSITE**

<http://www.fullerton.edu/ecs>

The curricula of the College of Engineering and Computer Science are designed to prepare students for careers in engineering and computer science and for further study and specialization in graduate work. The faculty of the college is actively involved not only in instruction and scholarship but also in the advisement of students on topics relating to the planning of career and program goals. Cooperative education and internship programs are available.

## **PROGRAMS OFFERED**

Civil Engineering, Bachelor of Science

    Emphasis in Architectural Engineering

Civil Engineering, Master of Science

    Concentration in Environmental Engineering

Computer Engineering, Bachelor of Science

Computer Science, Bachelor of Science

Computer Science, Minor

Computer Science, Master of Science

Electrical Engineering, Bachelor of Science

Electrical Engineering, Master of Science

    Option in Systems Engineering

Mechanical Engineering, Bachelor of Science

    Emphasis in Manufacturing Engineering

Mechanical Engineering, Master of Science

Software Engineering, Master of Science

## **ENGINEERING**

Engineering is the application of scientific principles to the solution of practical problems. Engineers are professionals who employ the empirical art and techniques of engineering to the benefit of the society. Throughout the ages, human progress has been able to flourish due to the brilliant minds of engineers. Historical works, such as the Egyptian pyramids, Roman aqueducts, and Greek and Persian monuments, are examples of engineering ingenuity. In the contemporary world, technological breakthroughs, such as computers, lasers and robots, have become reality due to the creativity and imagination of engineers.

People-made wonders, such as Hoover Dam, the Golden Gate Bridge, the Empire State Building and the Gateway Arch on the Mississippi River, are examples of engineering ingenuity. Great inventors like Leonardo da Vinci, Galileo, James Watt and Thomas Edison had exceptional engineering minds.

Engineers need a firm knowledge of the sciences and mathematics, and must be able to analyze complex situations involving people, money, machines and information in order to create workable and economical designs. Engineers often work with others in a team to develop systems and products. The increasing technological complexity of modern society offers opportunities, as well as challenges, to the engineering graduates of the future.

Engineers are employed in practically every field of human endeavor. This includes manufacturing, construction, education, government, health care and business. As society becomes increasingly more technological, an engineering education provides a background for careers that will extend well into the 21st century. There is a real need for more engineering professionals, and so there are tremendous opportunities for everyone, including women and underrepresented minorities, in this field.

The College of Engineering and Computer Science has developed a reputation for excellence in its undergraduate and graduate engineering and computer science programs. The college is committed to providing the student with a solid preparation in the fundamental principles of engineering, as well as the practical experience to use these principles in the solution of engineering problems. The bachelor's degrees in civil, electrical and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410-347-7700.

Each engineering degree program incorporates the following three curricular areas: mathematics and basic science courses such as physics and chemistry; engineering topics courses such as thermodynamics, materials science and electrical circuits, which provide a bridge between basic math/science and engineering practice and engineering design courses in which a system, component, process or structure is devised to meet a specific need; general education courses in the arts, humanities and social sciences. Each undergraduate program prepares students for entry into the engineering profession or for further study and specialization in graduate study.

## **COMPUTER SCIENCE**

Computer Science deals with all forms of information, including its representation, storage, structure, display and the processes by which it is transformed and used. Computer science professionals create new systems, such as an inventory control system for a large manufacturer, a navigational system for a new space vehicle or a decision support system for the management of a bank. These people use their technical skills to convert specific needs into specialized programs, procedures and systems that will actually do the job.

Students who pursue the Bachelor of Science in Computer Science degree at Cal State Fullerton are prepared for careers in a variety of fields in business, government and industry. The curriculum emphasizes fundamental concepts exemplified by various types of programming languages, computer architectures, operating systems and data structures.

The computer science program focuses on several curricular objectives that are designed to provide the student with the foundations of the discipline and the opportunity for specialization. The department faculty are well-versed in the discipline through education and work experience.

The Computer Science Department houses five large computer science laboratories with an extensive range of computers and related equipment for student use. The facilities provide ample space for a full range of state-of-the-art systems and equipment.

The Bachelor of Science program is accredited by the Computing Accreditation Association of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410-347-7700.

## **UNDERGRADUATE STUDENT ADVISEMENT**

Undergraduate students should call the department office of their major to arrange for advising and approval of their study plans. The College of Engineering and Computer Science has a policy of mandatory advising. Each undergraduate student must see an advisor at least once per year.

Students interested in programs in the college, but without a declared major should contact either the dean's office, for an interest in engineering, or the Computer Science Department office for advisement.

## **GRADUATE STUDENT ADVISEMENT**

Graduate students should consult the graduate adviser in their major department before registering for the first semester. No more than nine units may be completed before an approved study plan is filed.

## **PROGRAM IN GENERAL EDUCATION**

Because of high unit requirements for the Bachelor of Science degrees in Engineering, these programs have modified requirements for general education. Students should consult the department for requirements. Majors in the College of Engineering and Computer Science should take mathematics and other courses in related fields early. General education courses normally should be scheduled throughout the student's program of study.

## **CENTER FOR ACADEMIC SUPPORT IN ENGINEERING AND COMPUTER SCIENCE (CASECS)**

CASECS is an academic support program designed to recruit, retain and graduate students. CASECS serves educationally disadvantaged students, to the extent possible by law and emphasizes participation by students from groups with low eligibility rates for four-year colleges.

### **MESA**

The goal of the Mathematics, Engineering, Science Achievement (MESA) program is to create opportunities for educationally disadvantaged students, especially those from groups with low college acceptance rates, to prepare for and enter colleges and universities in majors such as engineering, computer science and other mathematics-based scientific fields.

### **STUDENT ORGANIZATIONS**

There are 18 active student organizations in the college. These are student branches of the American Institute of Aeronautics and Astronautics (AIAA), American Society of Civil Engineers (ASCE), American Society of Mechanical Engineers (ASME), Association for Computing Machinery (ACM), Electrical Engineering Honor Society, Eta Kappa Nu (HKN), Institute of Electrical and Electronics Engineers (IEEE), IEEE Computer Society, Institute of Navigation (ION), Instrumentation Systems and Automation Society (ISA), Society of Mexican-American Engineers and Scientists (MAES), National Society of Black Engineers (NSBE), Society of Automotive Engineers (SAE), Computer Science Honor Society, Upsilon Pi Epsilon (UPE), California Chi Chapter of Tau Beta Pi, Society for the Advancement of Materials and Process Engineering (SAMPE), Society of Women Engineers (SWE), Society of Hispanic Professional Engineers (SHPE), Society of Manufacturing Engineers (SME) and Video Game Design Club (VGDC). These 18 societies form the college's Interclub Council.

### **INTERNSHIPS IN ENGINEERING**

Internships for Engineering provide practical work experiences which integrate with and supplement the student's academic studies. Internship jobs are coordinated through the Center for Internships and Cooperative Education. In order to participate in this program, a student must register for EGGN 495 Professional Practice (1-3) for each semester of internship participation.

## **GENERAL ENGINEERING COURSES**

Courses are designated as EGGN in the class schedule.

### **205 Digital Computation (3)**

(Same as EGME 205)

### **308 Engineering Analysis (3)**

Prerequisites: Physics 226, Math 250B or equivalent. Fundamentals and engineering applications of Fourier series, Fourier transforms, Laplace transforms, complex analysis, vector analysis; engineering applications. (Same as EGCE 308, EGEE 308 and EGME 308)

### **314 Engineering Economy (2)**

Prerequisite: junior or senior standing in engineering. Development, evaluation and presentation of alternatives for engineering systems and projects using principles of engineering economy and cost benefit analysis. (Same as EGME 314)

### **403 Computer Methods in Numerical Analysis (3)**

Prerequisites: Math 250B and EGGN 205 or equivalent. Use of numerical methods and digital computers in the solution of algebraic, transcendental, simultaneous, ordinary and partial differential equations.

### **495 Professional Practice (1-3)**

Prerequisite: junior or senior standing in engineering. Professional engineering work in industry or government. Written report required. May be repeated for credit. Applicable towards bachelor's degree programs. Not for credit in the graduate program.



# College of Health and Human Development



*“Our college offers programs that focus on areas of broad human concern – the health, development and well-being of people of all ages, from infancy to older adult years. I welcome you to the College of Health and Human Development and the opportunity to learn the knowledge and skills needed to make a lasting contribution to the world in which we live.”*

**Dean Roberta E. Rikli**

COLLEGE OF HEALTH AND HUMAN DEVELOPMENT

## **DEAN**

Roberta E. Rikli

## **ASSOCIATE DEAN**

Kathy Koser

## **ASSISTANT DEAN, STUDENT AFFAIRS**

Lea Beth Lewis

## **DEAN'S OFFICE**

Education Classroom Building 606  
657-278-3311

## **COLLEGE WEBSITE**

<http://hhd.fullerton.edu>

Through its teaching, scholarship and service mission, the College of Health and Human Development provides students with an education that contributes to their intellectual, personal and professional development. Emphasis is placed on theory and practice, with special attention to the development of critical thinking and humanistic skills needed to function in a widely diverse and ever-changing society. Programs in the college lead to traditional academic degrees at the baccalaureate and graduate levels, as well as to a variety of specific certificates, credentials and licenses.

The College of Health and Human Development is organized into the following departments and programs: Child and Adolescent Studies, Counseling, Health Science, Human Services, Kinesiology, Military Science, Nursing and Social Work.

## **PROGRAMS OFFERED**

Child and Adolescent Development, Bachelor of Science

Early Childhood Development

Elementary School Settings

Adolescent/Youth Development

Family and Community Contexts

Child and Adolescent Development, Minor

Counseling, Master of Science

Health Science, Bachelor of Science

Health Science, Minor

Human Services, Bachelor of Science

Human Services, Minor

Kinesiology, Bachelor of Science

Kinesiology, Bachelor of Science in Athletic Training

Kinesiology, Minor

Kinesiology, Master of Science



Military Science, Minor  
 Second Lieutenant Commission, U.S. Army  
 Nursing, Bachelor of Science (RN to BSN)  
 Prelicensure to BSN  
 Nursing, Master of Science  
 Accelerated RN to MSN  
 Nurse Anesthetist  
 Nursing Leadership  
 Prelicensure to MSN  
 School Nursing  
 Women's Health Care  
 Master of Public Health  
 Master of Social Work

### **ACCREDITATIONS/LICENSURES**

The College of Health and Human Development offers high quality programs that meet state and national accreditation standards. Major accrediting bodies for college programs include:

- American College of Nurse Midwives
- American Association of Nurse Anesthetists
- California Board of Registered Nursing
- California Commission on Teacher Credentialing
- Commission on Accreditation of Athletic Training Education
- Commission on Collegiate Nursing Education
- Council in Education for Public Health
- Council on Accreditation for Counseling and Related Educational Programs
- Council for Social Work Education
- Council for Standards in Human Services Education

### **RESEARCH CENTERS AND INSTITUTES**

In addition to its academic degree programs, the college also sponsors the following interdisciplinary centers and institutes. For additional information, see the Research Centers section of the catalogue.

- Center for Cancer Disparities Research
- Center for Community Collaboration
- Center for the Promotion of Healthy Lifestyles and Prevention of Obesity
- Center for the Advancement of Responsible Youth Sports
- Center for Successful Aging
- Fall Prevention Center of Excellence
- Fibromyalgia Research and Education Center
- Health Promotion Research Institute
- Sports and Movement Institute

### **STUDENT ORGANIZATIONS**

The College of Health and Human Development is proud of its active student organizations and honor societies. The following department-based organizations combine to form the College of H&HD Inter-Club Council:

- Alpha Lamda (ROTC)
- Child and Adolescent Studies Student Association
- Chi Sigma Iota Counseling Academic and Professional Honor Society, International, Kappa Omega Chapter
- Eta Sigma Gamma Honorary Society, Delta Rho Chapter, Health Science
- Graduate Counseling Student Association
- Human Services Student Association
- Kappa Omicron Nu Honor Society, Kinesiology
- Kinesiology and Health Science Student Association
- Nursing Students Association

# College of Humanities and Social Sciences



*“Students new to the College of Humanities and Social Sciences appreciate how friendly and helpful our faculty are. Classes are ‘student friendly,’ and students discover many opportunities for participation with their teachers in research, projects, conference presentations and in service learning. Our faculty make a really positive difference in students’ lives.”*

**Dean Thomas Klammer**  
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

## **DEAN**

Thomas Klammer

## **ASSOCIATE DEAN, ADMINISTRATION**

Claire Palmerino

## **ASSOCIATE DEAN, ACADEMIC PROGRAMS**

Angela Della Volpe

## **ASSISTANT DEAN, STUDENT AFFAIRS**

David McKenzie

## **DEAN'S OFFICE**

Humanities 211  
657-278-3528

## **COLLEGE WEBSITE**

<http://hss.fullerton.edu>

The College of Humanities and Social Sciences (H&SS) offers students the breadth of a traditional liberal arts education in the humanities and social sciences while preparing them for a wide range of professions, for graduate school and for advanced professional study in fields such as law, public administration, clinical psychology and business. In fact, the college is home to 20 different departments and programs, most offering both bachelor's and master's degrees. Our faculty and staff are student-centered and enjoy providing friendly, personal guidance and mentoring to our students. That's why the College of H&SS is the right place for so many Cal State Fullerton students.

Many of our students intend to become teachers, and each of our programs includes a track that prepares students for entry into the elementary school teaching credential program. For those seeking to become high school teachers, we offer programs leading to secondary credentials in English/Language Arts, Foreign Languages and History/Social Science.

In the College of Humanities and Social Sciences, students know that “the name of your major does not have to be the same as the name of your career.” In fact, for most college students, it rarely is. All majors in H&SS provide students with the broad education and core skills (reading, writing, critical thinking, working in teams, public speaking) that will be attractive to employers in whatever career or field a graduate may later choose.

Majors in the Humanities and Social Sciences not only prepare students for the profession of their choice, but also help them to excel in coursework throughout their time at the university. If you're a student working on an assignment that involves complex analysis, critical thinking or persuasive communication, your studies in one of the degree programs in the College of Humanities and Social Sciences will provide you with what you need to succeed in your classes at the university and in any professional field.

Of course, learning takes place outside of the formal structure of classes, as well. We give a high priority to involving students directly in faculty research and professional internships. And each of our departments includes one or more student clubs and organizations that promote life-long friendships, social activities and service projects.

The H&SS Interclub Council (ICC) provides additional leadership opportunities for students in the College, as well as promoting communication among more than 50 clubs and organizations run by and for Humanities and Social Sciences students.

Listed below are the many majors, minors and graduate degrees offered within the College of Humanities and Social Sciences. Academic advisement is provided by each of the college's departments and programs, as well as in our Student Access Center located in Humanities 112.

## PROGRAMS OFFERED

Afro-Ethnic Studies (Option in B.A. Ethnic Studies)

Afro-Ethnic Studies, Minor

American Studies, Bachelor of Arts

American Studies, Master of Arts

American Studies, Minor

Anthropology, Bachelor of Arts

Anthropology, Master of Arts

Anthropology, Minor

Asian American Studies (Option in B.A. Ethnic Studies)

Asian American Studies, Minor

Asian Studies, Minor

Chicana/o Studies (Option in B.A. Ethnic Studies)

Chicana/o Studies, Minor

Christian Studies, Minor

Comparative Literature, Bachelor of Arts

Criminal Justice, Bachelor of Arts

Criminal Justice, Minor

English, Bachelor of Arts

English, Master of Arts

English, Minor

Environmental Studies, Master of Science

Environmental Sciences

Environmental Policy and Planning

Environmental Education and Communication

Ethnic Studies, Bachelor of Arts

European Studies, Bachelor of Arts

European Studies, Minor

French, Bachelor of Arts

French, Master of Arts

French, Minor

Geography, Bachelor of Arts

Urban Geography

Environmental Analysis

Geography, Master of Arts

Geography, Minor

German, Bachelor of Arts

German, Master of Arts

German, Minor

Gerontology, Master of Science

Gerontology, Minor

Gerontology, Certificate

History, Bachelor of Arts

History, Master of Arts

History, Minor

International Politics, Minor

Japanese, Bachelor of Arts

Japanese, Minor

Jewish Studies, Minor

Latin American Studies, Bachelor of Arts

Latin American Studies, Minor

Law, Politics and Society, Minor

Liberal Studies, Bachelor of Arts

Liberal Studies, Minor

Linguistics, Bachelor of Arts

Linguistics, Master of Arts

Applied Linguistics

Anthropological Linguistics

Analysis of Special Language Structures

Communication and Semantics

Disorders of Communication

Linguistics, Minor

Philosophy, Bachelor of Arts

Social, Moral and Legal Philosophy for the Professions

Philosophy, Minor

Political Science, Bachelor of Arts

Political Science, Master of Arts

Political Science, Minor

Portuguese, Minor

Psychology, Bachelor of Arts

Psychology, Master of Arts

Psychology, Master of Science Clinical

Psychology, Minor

Public Administration, Bachelor of Arts

Public Administration (M.P.A.)

Criminal Justice

Human Resources

Public Finance

Urban Management

Public Administration, Minor

Religious Studies, Bachelor of Arts

Religious Studies, Minor

Sociology, Bachelor of Arts

Deviance and Socio-Legal Studies

Education

Family

Gerontology

Social Work

Sociology of Class, Race and Gender

Sociology, Master of Arts

Sociology, Minor

Spanish, Bachelor of Arts

Spanish, Master of Arts

Spanish, Minor

Teachers of English as a Second Language (Certificate)

Teaching English to Speakers of Other Languages- TESOL  
(Concentration in M.S. Education)

Women's Studies, Bachelor of Arts

Women's Studies, Minor

## **HUMANITIES COURSES**

### **350T Life and Culture Abroad (3)**

Prerequisite: completion of General Education Categories III.B.1. and III.B.2. Interdisciplinary course to give students a broad background to culture and civilization abroad. Takes a social, historical and cultural approach to contemporary societies abroad. Examines traditions and institutions to help understand the 21st century way of life abroad. Related field trips. (Course only offered as part of CSUF Humanities Study Abroad Program.)



# College of Natural Sciences and Mathematics



*“We provide a comprehensive educational experience to all students through student-centered, inquiry-based instruction in the classroom and the laboratory. We view research experience for students as an essential and necessary component in the learning of science.”*

**Dean Steven N. Murray**  
COLLEGE OF NATURAL SCIENCES AND MATHEMATICS

## **DEAN**

Steven N. Murray

## **ASSOCIATE DEAN**

Mark S. Filowitz

## **ASSISTANT DEAN, STUDENT AFFAIRS**

Rochelle Woods

## **DEAN'S OFFICE**

McCarthy Hall 166  
657-278-2638

## **COLLEGE WEBSITE**

<http://nsm.fullerton.edu>

The curricula of the College of Natural Sciences and Mathematics are designed to prepare students for careers in scientific, mathematical and other technical fields; for further study and specialization in advanced graduate work; and for entry into professional schools of medicine and other health-related disciplines. The faculty of the college is actively involved not only in instruction and research but also in the advisement of students in the college on topics relating to the planning of career and program goals. Cooperative education internship programs are available in each of the College's Departments.

The College sponsors a variety of professional and educational programs at which students and faculty have an opportunity to meet with their counterparts. The College also has an external advisory council.

## **PROGRAMS OFFERED**

Biological Science, Bachelor of Science

Biology, Master of Science

Biochemistry, Bachelor of Science

Biotechnology, Minor

Chemistry, Bachelor of Arts

Chemistry, Bachelor of Science

Chemistry, Minor

Chemistry, Master of Science

Geology, Bachelor of Science

Geology, Minor

Geology, Master of Science

Mathematics, Bachelor of Arts

Mathematics, Minor  
Mathematics for Teacher Education, Minor  
Mathematics, Master of Arts  
Natural Sciences, Minor  
Physics, Bachelor of Science  
Physics, Minor  
Physics, Master of Science  
Pre-Health Professions Studies, Certificate  
Science, M.A.T.S.

### Recommended Preparation

For a career in mathematics or science, a sound foundation is essential. High school preparation should include:

At least three, preferably four, years of mathematics

Chemistry and/or physics, preferably both

Two or three years of foreign language

Community college preparation should include at the minimum:

College writing

Calculus

College chemistry

First course in the major

Qualifying Examinations

Enrollment in introductory courses is restricted to those who are adequately prepared, as shown by performance on qualifying examinations. In addition, the Entry Level Mathematics (ELM) examination is required of all students unless exempt.

### UNDERGRADUATE STUDENT ADVISEMENT

Undergraduate students should call the department office of their major to arrange for advising and approval of their study plan. University policy requires students to see an adviser each of their first two semesters and every year thereafter. Most departments prefer to advise their majors more frequently. Students interested in programs in the College, but without a declared major should call the Office of the Dean for advisement.

### ADVISEMENT FOR HEALTH PROFESSIONS

It is important for any student interested in a career in the health professions to seek advisement at the Health Professions Office prior to registering for the first semester.

### GRADUATE STUDENT ADVISEMENT

Graduate students should consult the graduate adviser in their major department before registering for the first semester. No more than nine units may be completed before an approved study plan is filed.

## SCHOLARSHIPS AND AWARDS

### General

Diefenderfer Award. Presented annually to an outstanding woman or minority student

College of Natural Sciences and Mathematics' Alumni Association Scholarship for Scholastic Achievement

Jewel Plummer Cobb Scholarship for Scholastic Achievement. Awarded to an outstanding, underrepresented science major

Wolfram Award in Computational Science. Award offers a lifetime copy of Mathematica software to student who demonstrates greatest potential in computational science.

### Health Professions

Miles McCarthy Health Professions Award. Annually awarded to the outstanding graduate from the program for the health professions

Kenneth Goodhue-McWilliams Award. For outstanding contributions to community service by a health professions student

### Chemistry and Biochemistry

American Chemical Society Award. Recognizes a graduating senior chemistry-biochemistry major for exemplary academic achievement

American Institute of Chemists Award. Presented to a graduating senior who has demonstrated outstanding scholarship and undergraduate research

James Sternberg Scholarship. Awarded to an outstanding first-year graduate student

Glorya Welch Scholarship. Presented to an outstanding transfer student (from a local community college)

Glenn Nakaya Scholarship. Given to an outstanding, deserving undergraduate chemistry student based on academic achievement

The Lyle Wallace Award. For service to the Department of Chemistry and Biochemistry

The Hypercube Scholar Award recognizes a graduating senior for accomplishments in molecular modeling/computational chemistry

### Other awards made by the Department of Chemistry and Biochemistry are the:

Freshman Chemistry Award and the Undergraduate Awards for Achievement in Organic Chemistry and in Analytical Chemistry

CSUF Institute of Gerontology Outstanding Student in Biochemistry Award. Given to an outstanding biochemistry student engaged in studies on aging

Mark Lackey Award. For graduate student teaching

Glenn Nagel Scholarship. To provide support for summer undergraduate research

Robert C. Belloli Future Chemistry Teacher Scholarship. To provide support for future junior high school or high school chemistry teachers.

## Biology

Rachel Carson Award. A commemoration of the ideals of Rachel Carson

Biology Chair's Undergraduate Research Scholarship for biology majors

Friends of the Arboretum, David L. Walkington Scholarship. For an outstanding biology student who has chosen botany for a career

Donald Gardner Memorial Scholarship to recognize individuals who have demonstrated a love of teaching biology

Dr. and Mrs. Donald B. Bright Environmental Scholarship.  
For students interested in careers in environmental biology

Stanley Hillman and Lon McClanahan Scholarship in plant or animal physiological ecology. For graduate students engaged in research in these subjects

Coppel Graduate Science Award. Awarded to biology graduate students

L. Jack Bradshaw Scholarship. Awarded to upper-division undergraduate or graduate students planning a career in immunology

Jerome Wilson Memorial scholarship. Awarded to biology students with an interest in genetics

Kenneth Goodhue-McWilliams First Instar Award for Teaching Excellence. Awarded to promising new graduate student-teaching associate

Kenneth Goodhue-McWilliams Metamorphosis Award in Teaching Excellence. Awarded to a continuing graduate student teaching assistant

Dharm Vireo Pellegrini Memorial Research Grant. Awarded to biology students engaged in ornithological field research

Dr. and Mrs. Marvin J. Rosenberg Scholarship. Awarded to students in cell or molecular biology

Judith A. Presch Endowment Desert Research Scholarship.  
For students pursuing research in the Mojave Desert

David L. Walkington Memorial Scholarship. For upper-division or graduate biology students

## Geology

Outstanding Service Award for graduating senior students in recognition of extraordinary service to the department community

Outstanding Major Award for academic achievement and collegiality

Outstanding Academic Achievement for academic achievement in geology coursework

John D. Cooper Field Camp Award. For outstanding field research performance

Prem K. Saint Hydrology Award. For research and study of hydrology

Marilyn A. Brown Scholarship

Margaret T. Skillman Woyski Scholarship. For geology majors

## Mathematics

The Department of Mathematics recognizes excellent academic achievement and service by undergraduate and graduate students in a number of awards, including the Outstanding

Teaching Award, the Outstanding Math Scholar, the Math Club Scholarship, the Lila B. Hromadka and Major Theodore Hromadka Award, and a Service Award.

Actuarial Studies Scholarship. Recognizes academic achievement for students in actuarial science

The Brandon Nghi Tran Memorial Scholarship

Santa Ana/CSUF Mathematics Scholarship. For Santa Ana High School students enrolling at CSUF

The Stiehl Prize for Excellent in Mathematics.  
For exceptional honor students

Rose Klein Award in Algebra and Probability for the Secondary Teacher

## Physics

The Dan Black Scholarship provides support to a junior Physics major based on need and promise, and is renewable for the senior year

The Dan Black Physics/Business Scholarship assists students enrolled in the business emphasis of the physics major and promotes entrepreneurship with physics majors

The Department of Physics honors the memory of Edward Lee Cooperman, and a scholarship in his name goes to an outstanding student

The Constance Beech Eiker-Raymond V. Adams Creativity Award is given to a student who developed an outstanding set of instructional laboratory experiments

The Dr. Robert W. Kedzie Award recognizes the most improved Physics major

Norman Nitzberg Awards in Experimental Physics

## FUNDED RESEARCH OPPORTUNITIES

### MARC (Minority Access to Research Careers)

This NIH-supported program develops six exceptional under-represented scholars in the biomedical sciences and prepares them for success in PhD programs.

### REU (Research Experience for Undergraduates) Program

This NSF-funded program provides students interested in research and pursuit of PhD degrees in chemistry and biochemistry, with support to carry out research during the summer months. Applicants are accepted from all over the country and from local community colleges.

### MHIRT (Minority Health & Health Disparities International Research Training) Program

This NIH-sponsored program provides minority students the opportunity to carry out research during the summer at laboratories in England, Mexico or Thailand.

### Individual Faculty Research Projects



## RECOMMENDED PROGRAM IN GENERAL EDUCATION

Majors in the College of Natural Sciences and Mathematics should take mathematics and other courses in related fields early in their academic careers. General education courses normally should be scheduled throughout the study sequence.

Because of high unit requirements for the Bachelor of Science in Chemistry, this program has modified requirements for general education. Students should consult the department for particulars.

## CERTIFICATE IN PRE-HEALTH PROFESSIONS STUDIES

This certificate program provides the required and appropriate coursework for post-baccalaureate students who wish to change career direction and prepare for medical, dental or pharmacy professional schools. The program includes the facilities of an advising center with support for many issues related to the health professions. It is not for science majors wishing to improve their academic records or test scores in anticipation of application to professional schools.

### Application Deadlines

Students are encouraged to apply for admission as soon as possible by submitting an online application starting on Oct. for fall admission and Aug. for spring admission (see <http://www.csumentor.edu>). Because of the limited number of students that can be accepted into this program, application deadlines may be changed based on enrollment projections.

### Admission

Admission is competitive. Applicants will be evaluated based on the following:

1. Acceptable bachelor's degree in a non-science-based discipline from an appropriately accredited institution;
2. Minimum grade point average of at least 3.0 in the last 60 semester units attempted, and applicant must be in good standing at last college attended;
3. A well-written, one-page statement of purpose.

Students with deficiencies in mathematics or who require additional science background in order to take the required courses are encouraged to complete the necessary coursework prior to enrolling in the certificate program. Under no circumstances will such coursework be credited towards the Pre-Health Professions Studies certificate program requirements.

### Study Plan

The Certificate in Pre-Health Professions Studies requires a minimum of 50 units of approved coursework, most of which will be required by the professional schools. Other courses required for this program are either highly recommended by professional schools or important for standardized test preparation. Each student, in consultation with the Health Professions Coordinator or his or her representative, will develop a program for the student that will include the following courses or their equivalents:

Biology 172 Cellular Basis of Life (5)  
Biology 273 Genetics and Molecular Biology (5)  
Chemistry 120A General Chemistry (5)  
Chemistry 120B General Chemistry (5)  
Chemistry 301A Organic Chemistry (3)  
Chemistry 301B Organic Chemistry (3)  
Chemistry 302 Organic Chemistry Lab (2)  
Chemistry 421 Biological Chemistry (3)  
Physics 211 Elementary Physics (3)  
Physics 211L Elementary Physics Lab (1)  
Physics 212 Elementary Physics (3)  
Physics 212L Elementary Physics Lab (1)  
Math 130 or 150A A Short Course in Calculus or Calculus (4)

In addition, seven to 11 units of appropriate coursework determined in consultation with the Health Professions Coordinator shall be taken from the following list of courses or their equivalents:

Biology 302 General Microbiology (4)  
Biology 303 Intermediate Cell Biology (3)  
Biology 309 Intermediate Molecular Biology (3)  
Biology 361 Human Anatomy (4)  
Biology 362 Mammalian Physiology (4)  
Philosophy 314 Medical Ethics (3)  
OR Philosophy 316 Research Ethics (3)

For more detailed information or advisement, students should contact the Health Professions Advising Office.

# Degree Programs

California State University Fullerton offers more than 100 undergraduate and graduate degrees in a wide variety of academic fields. Many of these disciplines also provide opportunities for concentrations and special emphasis areas within a given degree. Please see the applicable academic department or program descriptions beginning on the pages indicated below:

## Bachelor's Degrees: (55)

American Studies – B.A. ....	154
Anthropology – B.A. ....	159
Art – B.A. and B.F.A. ....	167, 169
Athletic Training – B.S. ....	405
Biochemistry – B.S. ....	212
Biological Science – B.S. ....	191
Business Administration – B.A. ....	204
Chemistry – B.A. and B.S. ....	211
Child and Adolescent Development – B.S. ....	226
Civil Engineering – B.S. ....	233
Communications – B.A. ....	242
Communicative Disorders – B.A. ....	373
Comparative Literature – B.A. ....	317
Computer Engineering – B.S. ....	261
Computer Science – B.S. ....	265
Criminal Justice – B.A. ....	277
Dance – B.A. ....	595
Economics – B.A. ....	281
Electrical Engineering – B.S. ....	296
English – B.A. ....	317
Ethnic Studies – B.A. with options in	
Afro-Ethnic Studies ....	151
Asian-American Studies ....	183
Chicano Studies ....	221
European Studies – B.A. ....	329
French – B.A. ....	463
Geography – B.A. ....	337
Geology – B.S. ....	342
German – B.A. ....	464
Health Science – B.S. ....	355
History – B.A. ....	364
Human Services – B.S. ....	385
International Business – B.A. ....	402
Japanese – B.A. ....	465
Kinesiology – B.S. ....	407
Latin American Studies – B.A. ....	418
Liberal Studies – B.A. ....	422
Linguistics – B.A. ....	426
Mathematics – B.A. ....	438
Mechanical Engineering – B.S. ....	449
Music – B.A. and B.M. ....	485, 488
Nursing – B.S. ....	501
Philosophy – B.A. ....	517
Physics – B.S. ....	522
Political Science – B.A. ....	528
Psychology – B.A. ....	536
Public Administration – B.A. ....	544
Radio-TV-Film – B.A. ....	548
Religious Studies – B.A. ....	255
Sociology – B.A. ....	575
Spanish – B.A. ....	466
Speech Communication – B.A. ....	373
Theatre Arts – B.A. and B.F.A. ....	592, 593
Women's Studies – B.A. ....	605

## Master's Degrees: (48)\*

Accountancy – M.S. ....	145
American Studies – M.A. ....	155
Anthropology – M.A. ....	161
Art – M.A. and M.F.A. ....	173, 174
Biology – M.S. ....	195
Business Administration – MBA ....	209
Chemistry – M.S. ....	214
Civil Engineering – M.S. ....	235
Communications – M.A. ....	245
Communicative Disorders – M.A. ....	375
Computer Science – M.S. ....	266
Counseling – M.S. ....	272
Economics – M.A. ....	282
Education – M.S. with Concentrations in	
Bilingual/Bicultural Education ....	306
Educational Technology ....	307
Elementary Curriculum and Instruction ....	307
Reading ....	553
Educational Administration ....	289
Secondary Education ....	564
Special Education ....	586
T.E.S.O.L. ....	470
Electrical Engineering – M.S. ....	298
English – M.A. ....	318
Environmental Studies – M.S. ....	326
French – M.A. ....	468
Geography – M.A. ....	339
Geology – M.S. ....	342
German – M.A. ....	468
Gerontology – M.S. ....	351
History – M.A. ....	364
Information Systems – M.S. ....	391
Information Technology – M.S. (online only) ....	394
Instructional Design and Technology – M.S. (online only) ....	399
Kinesiology – M.S. ....	411
Library and Information Science – M.S. (thru San Jose State)* ...	70
Linguistics – M.A. ....	427
Mathematics – M.A. ....	440
Mechanical Engineering – M.S. ....	452
Music – M.A. and M.M. ....	490
Nursing – M.S. ....	503
Physics – M.S. ....	523
Political Science – M.A. ....	529
Psychology – M.A. ....	537
Psychology (Clinical) – M.S. ....	538
Public Administration – M.P.A. ....	545
Public Health – M.P.H. ....	359
Science (Teaching) – M.A.T. ....	558
Social Work – M.S.W. ....	570
Sociology – M.A. ....	576
Software Engineering – M.S. (online only) ....	581
Spanish – M.A. ....	469
Speech Communication – M.A. ....	375
Taxation – M.S. ....	147
Theatre Arts – M.F.A. ....	595

## Doctoral Degree: (1)

Educational Leadership – Ed.D. ....	290
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\*The M.S. in Library and Information Science is offered through San Jose State; it is not included in the master's degree count.