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College of
Engineering

Master of Science in
Engineering

CNU[®]

CALIFORNIA NATIONAL UNIVERSITY
FOR ADVANCED STUDIES



THIS BROCHURE DETAILS THE MASTER OF SCIENCE IN ENGINEERING PROGRAM AVAILABLE THROUGH CNU'S COLLEGE OF ENGINEERING. FOR OUR MOST UP-TO-DATE COURSE LISTINGS, PLEASE VISIT US AT OUR WEB SITE: WWW.CNUAS.EDU

California National University for Advanced Studies

PROVIDES AN ONLINE LEARNING ENVIRONMENT WHERE STUDENTS RECEIVE ONE-ON-ONE INSTRUCTION FROM AN ESTEEMED FACULTY, PERSONALIZED STUDENT SERVICE, AND THE FLEXIBILITY TO ACHIEVE THEIR LIFELONG LEARNING GOALS WHILE BALANCING CAREER AND FAMILY RESPONSIBILITIES.



CNU IS NATIONALLY ACCREDITED BY THE ACCREDITING COMMISSION OF THE DISTANCE EDUCATION AND TRAINING COUNCIL (DETC), WASHINGTON, D.C.

(WWW.DETC.ORG, 1601 18TH STREET, N.W., WASHINGTON, D.C. 20009, PHONE: (202) 234-5100).



ALL CNU PROGRAMS ARE APPROVED FOR VETERAN'S BENEFITS UNDER THE G.I. BILL AND VETERANS EDUCATIONAL ASSISTANCE PROGRAM (VEAP). IF YOU ARE ELIGIBLE AND WISH TO RECEIVE TUITION ASSISTANCE UNDER ONE OF THESE PROGRAMS,

CONTACT YOUR LOCAL VA OFFICE OR EDUCATION OFFICE TO RECEIVE AN ELIGIBILITY CERTIFICATE.



CALIFORNIA NATIONAL UNIVERSITY FOR ADVANCED STUDIES IS APPROVED TO PARTICIPATE IN THE VOLUNTARY EDUCATION TUITION ASSISTANCE PROGRAM

ADMINISTERED BY THE DEFENSE ACTIVITY FOR NON-TRADITIONAL EDUCATION SUPPORT (DANTES).

ACTIVE DUTY MILITARY PERSONNEL AND RESERVISTS SHOULD CONTACT THEIR EDUCATION OFFICE FOR MORE INFORMATION.



CNU ADHERES TO THE STANDARDS OF THE SOC (SERVICEMEMBERS OPPORTUNITY COLLEGES).

CNU offers **Bachelor** and **Master of Science in Engineering** degrees with electives in computer, electrical, environmental, quality, and mechanical engineering, as well as a **Bachelor of Computer Science**.

Our undergraduate programs highlight the basic sciences and general engineering courses to help students evolve into well-rounded engineers with strengths in the area of his/her elective choice. In our graduate programs, students and faculty work closely together to choose a sub-discipline that complements the work environment for real-world application.

For example, a computer engineering student could specialize in microprocessors or switching theory; an electrical engineering student could specialize in electronics power distribution, control systems, or communications; an environmental engineering student could specialize in hazardous waste management, transport phenomena, or air pollution control; a mechanical engineering student could specialize in thermodynamics or mechanical design; and a computer science student could specialize in advanced computer architecture or programming languages. Graduates are expected to possess sufficient knowledge to achieve professional certification.



College of Engineering

CNU's Online Campus* delivers high quality academic programs with the flexibility and personalized support you need to achieve your education goals without compromising work and family responsibilities. With a computer, internet, and e-mail access, you can participate in your online classroom anytime, from anywhere.

Complete and submit assignments online. Communicate with professors in one-on-one interactions for feedback and support from an expert in the field. Engage with virtual classmates through threaded discussion forums to enrich your learning.

CNU puts you in control of your learning. With no campus visits required and 15-week trimesters starting every Friday, you can study at the time, the place, and the pace that work best for your lifestyle.

* The minimum recommended computer requirements for using CNU's Online Campus are:

Platform:

- PC (Windows 2000 or XP or higher)
- Mac (10.2 or higher)

Hardware:

- 128 MB of RAM
- 2 GB of free disk space
- CD ROM and DVD drive
- Sound card with speakers (for courses with multimedia)
- Ethernet or Wireless network card (for high-speed Internet connection)
 - or 56K modem (for dial-up Internet connection)
- T1, DSL, Cable, or Satellite high-speed connection
- A monitor capable of at least 800x600 resolution

Master of Science in Engineering

The **Master of Science in Engineering** curriculum is designed for working professionals who wish to enhance their technical skills for career advancement. The program is structured around a core of knowledge related to analytical and management tools, supplemented by advanced technical electives in the student's area of interest.

MSE STUDENTS WILL GAIN:

- An ability to use advanced mathematics and statistics for the analysis of engineering problems.
- An understanding and appreciation of concepts related to quality and information management.
- An in-depth understanding of concepts and knowledge related to the student's area of technical interest.
- An ability to synthesize knowledge gained in coursework to a research project.
- An ability to communicate the results of a comprehensive research project.

DEGREE PROGRAM REQUIREMENTS

A Bachelor of Science degree in Engineering or in a related field is required. Applicants must have a 3.0 cumulative GPA in their Bachelor's degree program to be eligible for the Master's program, or in special circumstances, may be accepted on a provisional basis with approval from the Faculty Advisor and Academic Dean. The Master of Science in Engineering requires successful completion of 36 units of coursework. Students are expected to maintain a 3.0 GPA. Students with a non-engineering Bachelor's degree may need additional Calculus, Physics, and 300-level and 400-level engineering courses to prepare them for engineering graduate courses. The degree requirements are organized in the following categories:

Graduate Core	12 Units
Electives	18 Units
Master's Project	6 units
TOTAL	36 units

Master of Science in Engineering

GRADUATE CORE

(12 UNITS)

The Graduate Core is designed to provide a background in advanced mathematical topics and an introduction to concepts related to quality management and technology.

ELECTIVES

(18 UNITS)

The elective courses must be chosen with the assistance and formal approval of the Faculty Advisor and the Dean of Engineering. Elective courses may be chosen from the six elective areas listed below, but must form a coherent plan of study. Approval of the elective program must be established before the student completes three graduate-level courses.

ELECTIVE AREAS

- Computer Engineering
- Electrical Engineering
- Mechanical Engineering
- Computer Science
- Environmental Engineering
- Quality Assurance Science

MASTER'S PROJECT

(6 UNITS)

The Master's Project (6 units) is initiated with an approved proposal on a relevant and current subject. The student will work closely with the Project Committee, consisting of the Dean of Engineering and two Faculty members. The Project culminates with a formal report, which must be approved by the Project Committee.

Course Listing

GRADUATE CORE (12 UNITS)

ENGR 501 Graduate Engineering Analysis (3 units)

ENGR 502 Graduate Engineering Statistics (3 units)

ENGR 503 Graduate Total Quality Assurance Management (3 units)

MIS 502 Graduate Computers & Management Information Systems (3 units)

ELECTIVES (SELECT 18 UNITS)

Select 18 Units with Faculty Advisor.

CULMINATING EXPERIENCE (6 UNITS)

MSE 599A Master's Project (Research and Development) (3 units)

MSE 599B Master's Project (Final Report) (3 units)

College of Engineering

Admissions Checklist

(GREEN INDICATES REQUIRED)

- Completed Application
- Application Fee
- Admissions Essay
- Resume

INSTITUTIONAL

- Transcripts
(all postsecondary schools attended)
- Tuition Assistance Forms
(if applicable)
- Diplomas
- Test Scores
(CLEP, PEP, DANTES, SAT, ACT, GRE, etc.)

EXPERIENTIAL

- Professional Licenses/Certifications
- Certificates of Completion
- Patents/Projects
- Honors/Awards

OTHER

- Workplace Supervisor's Evaluation
- Letters of Recommendation
- Articles/Publicity

DEGREE PROGRAM		
COLLEGE OF ENGINEERING	U.S. & CANADIAN RESIDENTS	NON U.S. & NON CANADIAN RESIDENTS
BACHELOR OF SCIENCE IN ENGINEERING	\$300 PER UNIT	\$300 PER UNIT
BACHELOR OF COMPUTER SCIENCE	\$300 PER UNIT	\$300 PER UNIT
MASTER OF SCIENCE IN ENGINEERING	\$330 PER UNIT	\$330 PER UNIT

GO TO WWW.CNUAS.EDU TO APPLY ONLINE

FOR FURTHER INQUIRIES OR COMMENTS, E-MAIL: cnuadms@mail.cnuas.edu



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