

# Engineering - Graduate Programs

## Lyles College of Engineering

### Campus advisers:

#### M.S. in Civil Engineering

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#### M.S. in Engineering

##### *Electrical Engineering Option*

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##### *Mechanical Engineering Option*

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#### M.S. in Engineering

##### *Electrical Engineering Option*

##### *Mechanical Engineering Option*

Lancaster University Center

45356 Division Street

Lancaster, CA 93535

661.723.6429

The Master of Science in Engineering program has the following goals: (1) to develop the students' advanced analytical skills by developing an in-depth understanding of major theoretical and practical engineering concepts; (2) to develop students' written and oral communication skills applied to technical areas; (3) to achieve an appropriate level of competence by the students in solving practical electrical or mechanical engineering problems; (4) to develop students' critical and creative thinking skills in mastering new topics required to understand and solve complex engineering problems; and (5) to allow the students to demonstrate a sufficient depth of knowledge in a substantive area of electrical or mechanical engineering to pursue advanced academic or industrial work.

### Program Objectives

The program has the following objectives: (1) to complete a minimum of 30 units of graduate coursework, including appropriate core courses, (2) to successfully demonstrate knowledge base in culminating experience, and (3) to enhance the students' career goals by increasing their theoretical, research, and problem-solving skills in applied engineering.

### Program Requirements

The program consists of the following:

#### A. Main Core

ENGR 200 ..... 1

#### B. Option Core.....

EE Option: ENGR 201, 202, 206

or

ME Option (choose 3 courses):

ENGR 201, 202, 205, 206

#### C. Electives .....

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EE Option: Choose from remaining upper-division and program courses. Maximum of 9 upper-division units. See pages 311-312 for courses in Electrical Engineering.

or

ME Option: Choose from remaining upper-division and program courses. Maximum of 9 upper-division units. See pages 318-319 for courses in Mechanical Engineering.

#### D. Culminating Experience.....

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For either option, choose

1. 6 units of electives plus comprehensive exam, or

2. EE 298 or ME 298 Project (3 units) plus 3 units of program electives, or

3. EE or ME 299 Thesis (6 units) \_\_\_\_\_

**Total .....** **30**

Up to nine semester hours of satisfactory graduate credit may be transferred into the program from other institutions if not used in completing another graduate degree program. Undergraduate courses may be transferred if the courses were not used in completing another degree program. The total undergraduate upper-division semester hours applied to this degree program cannot exceed nine hours.

The Graduate Record Examination (GRE) Aptitude Test is required of all students prior to advancement to candidacy status.

The program requires extensive use of a computer; therefore, students are expected to have their own computer or access to one 24 hours a day.

**Admission to the University.** Requirements for admission to California State University, Fresno are in accordance with Title 5, Chapter 1, Subchapter 3 of the *California Code of Regulations*.

**Admission to the Program.** Students who apply to the program are placed in one of the following categories:

- 1. Graduate Standing, Classified.** Students with (a) an undergraduate degree in an appropriate engineering discipline from an ABET accredited program, (b) an undergraduate grade point average of 3.0, (c) a minimum GRE quantitative score of 550 are eligible for classified (degree status) graduate standing, and (d) a letter of recommendation from an academic or an industrial source.
- 2. Graduate Standing, Conditionally Classified.** Students from non-ABET accredited engineering programs, or with a degree in physical science or mathematics or a different engineering discipline, and who have not met the requirements of category 1, will be given conditionally classified graduate standing. These students may be required to take prerequisite courses as determined by the graduate program at the time of admission. Upon satisfactorily meeting any specified requirements, students will then be advanced to classified standing.

**Degree Candidacy.** The following requirements must be met prior to advancement to candidacy:

1. Classified graduate standing.
2. Completion at California State University, Fresno of at least 9 units of the proposed program with a 3.0 average