MASTER OF SCIENCE IN CIVIL ENGINEERING

The Civil Engineering program at CSUF is both current and innovative. It offers unique opportunities for advanced studies in the area of Civil Engineering and prepares the student to meet the challenging needs of the Civil Engineering profession. In consultation with a Graduate Advisor, the student can design a flexible study plan by selecting a variety of graduate courses, including: Structural Engineering, Environmental Engineering, Construction Engineering and Management, Geotechnical Engineering*, Hydraulics/Hydrology*, and Engineering Mechanics*.

*Not currently active.

ADMISSION PROCEDURE

- 1. Apply for admission to the university for graduate standing.
- 2. Declare the objective to be a Master of Science in Civil Engineering.
- 3. Request two official transcripts to be sent to the Admission and Records Office from all institutions attended.
- 4. If the objective is not declared at the time of admission, then the student must file a graduate application for a Change of Academic Objective before being admitted to the Civil Engineering Department.
- 5. Graduate and post baccalaureate students who do not possess a bachelor's degree from a postsecondary institution where English is the principal language of instruction must receive a minimum score of 550 on the Test of English as a Foreign Language (TOEFL). The Civil Engineering Department does not require the GRE.

GRADUATE ADMISSION REQUIREMENTS

Students with a Civil Engineering degree from an ABET-accredited school, and a 2.50 GPA or greater, will be admitted to the graduate program in Civil Engineering and advanced to "classified" status immediately after filing an advisor-approved study plan in the Civil Engineering Office (the GPA may be computed from the last 60 semester units attempted).

Students not meeting the above requirements <u>may</u> be admitted at the discretion of the Department Chair and will be required to take an additional 6 or more units of advisor-approved prerequisite coursework. The student must demonstrate his or her potential for graduate study by earning a GPA of 3.0 or better in these courses.

GRADUATE ADVISOR

Following notification of admission to the graduate program, each student must immediately contact the Department Chair for assignment of a Graduate Advisor. The student must make an appointment with the Graduate Advisor to set up a formal study plan before taking any course in the graduate area. Courses taken without prior approval of the Graduate Advisor may not be counted towards graduation. Students must have an approved study plan before completing 9 units total.

TRANSFER CREDIT

A maximum of 9 units of coursework done at other universities may be transferred for course credit in the study plan. *Coursework credit used for obtaining another degree cannot be transferred*. All transfer credit must be approved by the Graduate Advisor and the Department Chair. After admission to the graduate program, the student must obtain the written authorization from the Department Chair to take courses outside CSUF. For detailed information see CSUF's latest catalog.

ACHIEVEMENT OF CLASSIFIED GRADUATE STANDING

- 1. Before completing 9 units at CSUF toward an M.S., the student must prepare a study plan with the help and approval of the Graduate Advisor.
- 2. Completion of the necessary deficiency coursework with a grade of "B" or better.
- 3. Before completing 9 units toward the M.S., the student must meet the **University Writing Requirement** to demonstrate writing ability commensurate with the baccalaureate degree. The University Writing Requirement may be met by successfully completing one of the following:
 - a. An upper-division writing requirement at any CSU campus (300 or 400-level).
 - b. An upper-division writing course from another university which is equivalent to a course satisfying the CSU University Writing Requirement (equivalency must be certified by the department responsible for the student's academic work.).
 - c. CSUF's Examination in Writing Proficiency (EWP).
 - d. An upper-division or graduate level course that is certified as meeting the writing requirement and is approved by the department or program responsible for the student's academic work. The grade received must be a "C" or better.

ADVANCEMENT TO CANDIDACY

In order for advancement to candidacy, the student must file a graduation check in the Office of Graduate Studies. In addition to this, the Graduate Advisor must submit a recommendation to the Dean of Graduate Studies.

GRADUATION REQUIREMENT

- 1. Classified standing.
- 2. Advancement to candidacy.
- 3. Successful completion of all coursework in the advisor-approved study plan with an overall GPA of 3.0 or above.
- 4. Successful completion of the Oral Comprehensive Examination or, where appropriate, an oral defense of a thesis or project with a passing grade.

ORAL COMPREHENSIVE EXAMINATION

An Oral Comprehensive Examination is an assessment of the student's ability to integrate the knowledge of the area, show critical thinking in, and demonstration of his/her mastery of the subject matter. The results of the examination evidence independent thinking, appropriate organization, critical analysis and accuracy of documentation. The department maintains a record of the oral examination questions and the student's responses. Students enrolled for a thesis/project for less than 6 units must take the Oral Comprehensive Examination.

THESIS/PROJECT OPTION

In order to pursue a thesis/project option, the student must follow the procedures described below.

- 1. The student must have completed all the prerequisite courses required in the thesis area and have maintained a GPA of 3.0 or above.
- 2. No more than six semester units of the formal study plan may be utilized toward the thesis/project option.
- 3. During any semester, no more than three units of thesis or project may be taken.
- 4. Submit an "Approval for Thesis (or Project) Form" to the Civil Engineering faculty member who has agreed to serve as your Thesis/Project Advisor (this form may be obtained in the Civil Engineering Department). The form must be signed by the Thesis/Project Advisor, the two CE faculty members serving on the Thesis/Project Committee, the Graduate Advisor, and the Department Chair.

The final version of the thesis or project must be submitted for approval by the Thesis Committee and the Department Chair at least eight weeks prior to the last day of classes of any semester.

The "Thesis Manual", available in the Office of Graduate Studies, includes format guidelines and instructions for preparation and filing of the thesis. Information and assistance may also be obtained from the Reference Librarians at the Reference Desk on the first floor of the University Library.

The deadline for submission of the thesis to the Office of Graduate Studies is approximately two weeks prior to the last day of classes. Further, the Office of Graduate Studies must receive notification from the Titan Bookstore that the thesis has been deposited in the bookstore and the fees paid. This notification must be received prior to the last day of final examination week.

THESIS/PROJECT REQUIREMENTS

- 1. A thesis is the written product of a systematic study of a significant problem. It identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources for and methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, literature survey and appropriate organization and format, and thorough documentation. An oral defense of the thesis is required.
- 2. A project is a significant undertaking appropriate to the fine and applied arts or to professional fields. It evidences originality and independent thinking, appropriate form and organization, and a rationale. It is described and summarized in a written abstract that includes the project's significance, literature survey objectives, methodology and a conclusion or recommendation. An oral defense of the project is required.

ORAL DEFENSE OF THESIS OR PROJECT

At the discretion of the Master of Science degree candidate, subject to the approval of the advisor, the student may make an oral defense of a thesis or project rather than taking the comprehensive oral examination. In order to make this substitution, the student must either prepare a thesis, subject to the university's requirements, or submit a formal report of the project for review and approval by a committee of minimum two faculty members. A typed draft of the project report must be submitted to the reviewing committee for approval at least eight weeks prior to the last day of classes, and a final version submitted in accordance with university deadlines. The defense must be made before a committee of two or three faculty members and the student should be able to defend the rationale, methodology, and the conclusions made. Students enrolled in thesis/project for less than six units must take an Oral Comprehensive Examination.

DEFICIENCY COURSES

Deficiency courses for students not having a B.S. degree in Civil Engineering are to be taken according to the advisement provided by the Civil Engineering Department. Deficiency courses are listed for different cases. The number of courses may increase in some cases depending on the review by the Civil Engineering Department.

PREREQUISITES

Students must maintain Prerequisites for every course as listed in the Course List. While average grade point for graduation is "C" a "D" grade is a passing grade and will be allowed as a Prerequisite. In some of the courses, like math, a student will have to repeat the course to clear the "D" grade.

In some special situations, when a student is in distress, if the faculty member teaching the course agrees to cover the materials required from the Prerequisite course, the student may take the course with a written approval from the Civil & Environmental Engineering Department. Both the student and the faculty member would have to make the request in writing.

ASSISTANCE

Students who need additional information and/or assistance may call the Civil Engineering Department at (714) 278-3012. The Department will be more than happy to talk with the student about his/her goals and provide guidance regarding the enrollment process. The student may also write to the Civil Engineering Department Office at:

California State University, Fullerton Civil Engineering Department 800 N. State College Blvd. Room E-100 Fullerton, CA. 92834