The M.S. Programs

Admissions

To be unconditionally admitted to the M.S. thesis or non-thesis program, an applicant should have:

- a Bachelor's degree in Mechanical Engineering or in a related field, preferably from an accredited engineering program.
- a grade point average of at least 3.00 out of 4.00 on the last 60 semester credit hours attempted exclusive of grades received for activities such as seminars, physical education, industrial internships, etc.
- an adequate score on the Graduate Record Examination (GRE). Texas law prohibits the definition of minimum acceptable scores on the GRE. However, 160 to 163 is a typical average score on the Quantitative section across all degree programs for an admission class.
- a minimum score of 6.5 on the IELTS or 79 on the internet-based TOEFL examination for students whose native language is not English.
- three letters of recommendation attesting to the student's capacity to perform in the classroom and (for applicants to the thesis program) in a research capacity. A minimum of two letters should be from tenure-track faculty members who have observed the academic performance of the applicant, and one can come from an engineering industry supervisor.
- a statement of purpose that is consistent with the areas of instruction and (for applicants to the thesis program) the current research areas within the Department. The Application for Financial Aid and Statement of Purpose form available on the Application section of this website allows the applicant to specify areas of interest, and it lists issues to address in the statement of purpose.

Acceptance to the program is based on a competitive combination of academic background, GRE scores, and recommendation letters and Statement of Purpose. Domestic applicants who are not clearly competitive in all three areas may be admitted on a conditional basis at the discretion of the Director of Admissions. Nonimmigrant visa holders may not be admitted conditionally.

Program of Study for the M.S. Program with Thesis

The program requires completion of a minimum of 30 credit hours distributed as follows:

- Nine hours of thesis credits (the first three for MECE 6399, the remaining for MECE 7399).
- Three hours of graduate-level mathematics satisfied by the first course in one of these approved sequences:
MECE 6384, 6385  | Methods of Applied Mathematics I, II
CHEE 6331, 6332  | Mathematical Methods in Chemical Engineering I, II
PHYS 6303, 6304  | Methods of Mathematical Physics I, II

- At least nine hours from the MECE 6000-level or above, exclusive of the seminar (MECE 6111), research credits (MECE 6x98), and thesis credits.
- The remaining hours must be at the 6000-level or above from any department in the College of Engineering or the College of Natural Science and Mathematics.
- Credit for Subsea and Petroleum engineering courses requires a petition signed by the graduate advisor prior to registration for the class.

If a graduate course is dual-listed with an undergraduate 5000-level section, the student must enroll in the graduate section. Approval of any course that falls outside of the description given here must be requested by petition to the Director of Graduate Studies. Approval must be received prior to enrollment in the course.

The graduation requirements for this program are a successfully defended thesis and at least a 3.00 grade point average over all courses. The Director of Graduate Studies must approve the composition of the thesis examining committee prior to the defense date. The committee consists of at least three tenure-track faculty members, with one member from outside the Department.

**Program of Study for the M.S. Program without Thesis**

The program requires successful completion of 30 hours of course work distributed as follows:

- Three hours of graduate-level mathematics satisfied by the first course in one of these approved sequences:

| MECE 6384, 6385 | Methods of Applied Mathematics I, II |
| CHEE 6331, 6332 | Mathematical Methods in Chemical Engineering I, II |
| PHYS 6303, 6304 | Methods of Mathematical Physics I, II |

*or* the two-course undergraduate sequence, MATH 4335 and 4336. The student must complete both courses (6 hours) to satisfy the requirement.

- Eighteen hours from the MECE 6000-level or above, exclusive of graduate seminar (MECE 6111) and Graduate Project (MECE 6368).
- Nine hours at the 6000-level or above from any department in the College of Engineering or the College of Natural Science and Mathematics. A total of no more than six hours can be from each the Bauer College of Business and Law. A total of no more than six hours can be from Petroleum Engineering, Subsea Engineering and Industrial Engineering. Three hours can be satisfied by completing the directed-study Graduate Project course, MECE 6368. A statement of the intent of the directed study must be approved by petition to the Graduate Director prior to registration in MECE 6368. A report describing the results of the project must be filed with, and archived by, the instructor at the end of the course.

If a graduate course is dual-listed with an undergraduate 5000-level section, the student must enroll in the graduate section. Approval of any course that falls outside of the description given here must be requested by petition to the Director of Graduate Studies. Approval must be received prior to enrollment in the course. Non-thesis students should not enroll in research or thesis courses (6x98, 6399, 7399).
The graduation requirements for this program are at least a 3.00 grade point average over all courses, and separately, at least a 3.00 grade point average on the twenty-one or more hours comprised of all MECE courses and the course(s) used to satisfy the mathematics requirement.