

Engineering Mechanics (MSE)

of recent developments, and the ability as a master's degree student to participate in research and as a doctoral degree student to conduct individual research. The goals are accomplished through coursework, seminars, and active research programs.

Graduate study and facilities for research are offered in the areas of theoretical mechanics and applied mathematics, dynamics, computational mechanics, experimental fluid mechanics, computational fluid dynamics, finite element methods, boundary element methods, experimental mechanics, solid and structural mechanics, and structural dynamics. The extensive facilities of Information Technology Services and related hardware for interactive computer graphics and real-time control of experiments are available to graduate students for research use. For experimental research, the Department of Aerospace Engineering and Engineering Mechanics maintains laboratory facilities on the main campus and at the J. J. Pickle Research Campus. These facilities include equipment for studies in high-velocity impact, structural dynamics, and materials science. A well-equipped machine shop is partially supported by the department, and technical assistance is available when required.

Graduate Handbook

Graduate handbook information is updated and maintained by each program. Graduate handbooks are available within each program's office and [online](#). Please contact the program with concerns or questions.

Admission

Before being admitted to the program, the student must have a satisfactory proficiency in basic and intermediate material in engineering mechanics and mathematics. Students entering without an undergraduate degree in engineering are usually required to do some remedial work at the undergraduate level.

Total Hours Required: 30 Requirements

Students seeking the Master's degree have three options, each requiring a total of 30 credit hours. The thesis option requires 24 credit hours of coursework plus six credit hours for a master's thesis based on research. The report option requires 27 credit hours of coursework plus three credit hours for a master's report based on research. The coursework-only option requires 30 credit hours of coursework without a thesis or report.

Regardless of the option chosen, a student is required to take six credit hours of supporting coursework outside of the technical area. Only courses completed on the letter-grade basis may be counted toward the degree. Only three hours of business-related courses may be counted. Students may count no more than six hours of upper-division undergraduate coursework toward the degree.

Code	Title	Hours
All students must also follow the following requirements and policies:		
Graduate Engineering Requirements		
Graduate University Requirements		

Objectives

The engineering mechanics graduate program is involved in teaching and research in analytical, computational, and experimental methods in mechanics of solids, structures, and materials and fluid mechanics. The objectives of the program are to enable the student to attain a deeper understanding of engineering mechanics fundamentals, a knowledge