M.S. in Engineering

The Master of Science in Engineering degree is a personalizable 33-hour, non-thesis multidisciplinary program that enables students to tailor their engineering coursework to align with their interests. Students combine a primary concentration in an engineering field with a secondary concentration in another field, either in or outside engineering. Possible secondary concentrations are numerous, including education, business administration, computer science, information technology, and fields in the sciences, the liberal arts, and the health sciences. The degree offers students a growing number of pre-defined interdisciplinary tracks, including engineering education and smart cities.

Admission Requirements

Applicants are expected to have a Bachelor of Science in an Engineering or related Physical Sciences field or the equivalent. Depending upon selected area of concentration, students might need to complete deficiency undergraduate coursework.

Degree Requirements

The MS in Engineering is a 33-semester-hour non-thesis program. Coursework includes:

1. Eighteen(18) semester hours in the major concentration field of Engineering.
2. Twelve (12) semester hours in a second concentration field.
3. Three (3) semester hours of a graduate project or graduate research capstone.

No more than six (6) hours of upper-division undergraduate coursework can be counted toward the degree requirements. Coursework, direction of the project or research capstone, and administration of a final exam are coordinated by a committee of no less than three graduate faculty members. The chair of the committee would normally be a member of the graduate Engineering faculty.

Major concentration fields include:

1. Computer Science and Biomedical, Civil, Computer, Electrical, Environmental, Engineering Education and Leadership, Industrial, Manufacturing, Mechanical, Metallurgical and Materials Engineering, and Systems Engineering.
2. A coherent set of courses in the College of Engineering that relate to a single interdisciplinary theme, such as Smart Cities, subject to the approval of the Graduate Advisor and the Dean of the College of Engineering.

Second concentration fields include:

1. The major concentration fields.
2. Other areas of concentration such as Business Administration, Economics, Engineering Education, Engineering Leadership, Information Technology, Mathematics, Physics, STEM (Science, Technology, Engineering and Math) Chemistry, Biology, Geology, or others approved by the Graduate Advisor.
3. A coherent set of courses that relate to a single interdisciplinary theme, subject to the approval of the Graduate Advisor.

Degree Plan

Required Credits: 33

Code	Title	Hours
Master of Science-Engineering (All courses require a grade of C or better)		
Major Field of Engineering:		
Select (a) eighteen graduate hours from Computer Science or from one Engineering discipline or (b) eighteen graduate hours in a coherent set of courses in the College of Engineering that relate to a single interdisciplinary theme, such as Smart Cities, subject to the approval of the Graduate Advisor. For either option, qualifying courses are all courses carrying graduate credit in the College of Engineering other than 6000-level, thesis, project, or practicum courses.		18
Second Field of Concentration:		
Select twelve hours from:		12
a. The major concentration fields above, or		
b. Other areas of concentration such as Business Administration, Economics, Engineering Education, Engineering Leadership, Information Technology, Mathematics, Physics, STEM (Science, Technology, Engineering and Math) Chemistry, Biology, Geology, or others approved by the Graduate Advisor, or		
c. A coherent set of courses that relate to a single interdisciplinary theme, subject to the approval of the Graduate Advisor.		
Graduate Project:		
Select three hours of graduate Engineering project or research capstone of the following:		3
CE 5396	Graduate Projects	

CE 5397	Graduate Projects	
CS 5396	Graduate Projects	
CS 5397	Graduate Projects	
EE 5396	Graduate Projects	
EE 5397	Graduate Projects	
EEL 5394	Graduate Research Capstone	
EEL 5396	Graduate Projects	
MECH 5396	Graduate Projects	
MECH 5397	Graduate Projects	
Total Hours		**33**