M.S. in Integrated Engineering

The Master of Science in Engineering degree is a personalizable 33-hour 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. Applicants whose degrees are from non-English speaking institutions are required to demonstrate English proficiency. Please consult the Graduate School (https://www.utep.edu/graduate/future-students/applicant-timelines.html) website for required scores.

Degree Requirements

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

1. Eighteen(18) semester hours in the major Integrated Engineering Core.
2. Nine (9) - twelve (12) semester hours in a concentration field, depending on the selected capstone experience.
3. Three (3) - six (6) semester hours of a capstone experience: graduate design project (3 hrs), research capstone (3 hrs), or thesis (6 hrs).

No more than six (6) hours of upper-division undergraduate coursework can be counted toward the degree requirements. Coursework, direction of the project, research capstone or thesis, 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 with expertise in the concentration area.

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. Other areas of concentration such as Business Administration, Economics, Information Technology, Mathematics, Physics, 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-Integrated Engineering (All courses require a grade of C or better)		
Integrated Engineering Core:		
All courses listed below are required:		12
EEL 5330	Sustain Engr Innovation in Tec	3
Engineering Electives - Graduate engineering courses approved by the Graduate Advisor		3-6
Concentration:		
Select twelve hours from:		12
a. Computer Science and Biomedical, Civil, Computer, Electrical, Environmental, Engineering Education and Leadership, Industrial, Manufacturing, Mechanical, Metallurgical and Materials Engineering, and Systems Engineering.		
b. Other areas of concentration such as Business Administration, Economics, Information Technology, Mathematics, Physics, 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 - Option:		
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	
ECE 5396	Graduate Projects	

ECE 5397	Graduate Projects	
EEL 5394	Graduate Research Capstone	
EEL 5396	Graduate Projects	
MECH 5396	Graduate Projects	
MECH 5397	Graduate Projects	
Thesis-Option:		**6**
Complete two thesis courses		
EEL 5398	Thesis I	3
EEL 5399	Thesis II	3
Total Hours		**33**