

School of Industrial Engineering and Management

Master of Science (MS) Degree Program*

The master's degree in IEM may be earned by one of two plans as follows:

- *Plan I—coursework with thesis.* Minimum 30 graduate-level credit hours consisting of 24 credit hours of coursework and 6 credit hours of research (IEM 5000) with a grade of “SR.”
- *Plan II—coursework without thesis.* Minimum of 33 credit hours of graduate-level coursework. May include culminating experiences e.g., independent study, internship/practicum.

All MS plans require the selection of a **track**. The department currently supports a variety of courses in one general track and three specialty tracks (AKA options or concentrations)¹. These are:

- General Industrial Engineering² (GIE)
- Engineering Management (EM)
- Operations Research and Analytics³ (ORA)
- Supply Chain & Logistics⁴ (SCL)

Each track comprises of a set of **track core** courses and a set of **track supporting** courses. Any remaining courses on an MS plan of study (POS) are considered graduate **elective courses**, selected with the approval of the advisor and the committee. These electives can be any graduate level IEM course or any appropriate course approved for graduate credit. These electives must be substantial courses with strong relevance to the chosen track. Note that only courses with a minimum grade of ‘C’ can be included on a graduate plan of study.

MS Thesis POS under a chosen track:

- Must include a minimum 30 graduate-level credit hours.
- Must include all designated track core courses and the student must secure a grade of B or better in at least 4 of the track core courses.
- Supporting courses are not required.
- May include up to 2 electives—any IEM and non-IEM graduate-level courses approved by the advisor and committee as relevant to the track.
- Must complete 6 credit hours of IEM 5000 (thesis research credits) with an “SR” grade.

*Last updated: August 1, 2025

¹Subject to periodic revisions and offering subject to adequate enrollment

²Recommended for distance students

³Not available for distance students

⁴Not available for distance students

MS Nonthesis POS under a chosen track.

- Must include a minimum 33 graduate-level credit hours.
- Must include all the 6 designated track core courses and the student must secure a grade of B or better in at least 4 of the track core courses.
- Must include at least 2 supporting courses from designated track supporting courses.
- May include up to 3 electives—any IEM and non-IEM graduate-level courses approved by the advisor and committee as relevant to the track.

Independent study option.

- Non-thesis plans may include “IEM 5350 Industrial Engineering Projects” in the graduating semester as a culminating experience; must receive a grade of B or better in this course to be included in the POS.

Internship/practicum option.

- Thesis and non-thesis plans may include “IEM 5020 Graduate Engineering Practicum” for graduate-level internship/practicum in any field of IEM.
 - Students must take IEM 5020 in each semester doing an internship/practicum.
 - POS may include up to 6 credit hours of IEM 5020, counted as electives.
 - A student may participate in an internship for at most three semesters total during the degree program.
 - The student is responsible for meeting full-time enrollment requirements during spring/fall semester in which they participate in an internship/practicum.
 - International students need to keep their full-time Curricular Practical Training (CPT) under twelve months. Otherwise, they will lose the Optional Practical Training (OPT) option.⁵

⁵International students are expected to consult with the Office of International Students and Scholars to find out current full-time enrollment requirements.