

MS in Industrial Engineering

In order to be admitted in the MSIE program, applicants must:

1. Possess an undergraduate degree in engineering, science, business or other related discipline;
2. Have satisfactorily completed: MATH 243; and IME 255;
3. Have a minimum GPA of 3.000, on a 4.000 scale. (Students with a lower GPA may be considered only for probationary or nondegree admission. *In addition*,
4. Applicants whose native language is not English must submit official, acceptable scores for either the TOEFL, the Academic Module of the IELTS examination, or the PTE-Academic test. Please visit the Graduate School website (<http://wichita.edu/gradschool>) to check English proficiency requirements; and
5. Department prefers and strongly encourages the submission of GRE scores.

Program Requirements

Please note that:

- Some of the IME courses may require programming skills as a prerequisite.
- Some of the IME courses may require Linear Algebra or Calculus III as a prerequisite.
- A student must select a concentration. The concentrations in the ISME graduate program are:
 - Operations Research
 - Systems
 - Production and Supply Chain Analytics
 - Quality and Reliability
 - Manufacturing Engineering
 - Human Systems Engineering

- Course distribution:

Course	Title	Hours
Core Courses		
IME 724	Statistical Methods for Engineers	3
IME 777	IME Colloquium (one semester)	0
CESP 750D	Engineering Research Writing	1
Additional Courses		
Minimum 15 credit hours distributed as follows: ¹		15
Select one concentration area and take at least 9 credit hours from this concentration area		
Select at least 3 credit hours from each of two other concentrations		
Technical Electives		6
Select no more than 6 credit hours from other departments. (Must have written preapproval for non-IME courses by the graduate coordinator or department chair.)		
Total Credit Hours		25

- Students must select one of the following options for completion of MSIE degree: All Coursework, Directed Project, or Thesis
- A plan of study should be submitted during the first semester of enrollment and at least 60 percent of credit hours in a plan of study must be 700 or higher level WSU courses. Students may take at most three 500- or 600-level courses (9 credit hours);

- The professional and scholarly integrity training requirement must be completed, preferably during the first semester of the program.

- ¹ For a list of current courses in each concentration, please visit the ISME website (<https://wichita.edu/academics/engineering/ime/>).

Options

Thesis Option

Course	Title	Hours
Select a minimum of 24 credit hours of coursework		24
Select a minimum of 6 credit hours of thesis		6
Total Credit Hours		30

Directed Project Option

Course	Title	Hours
Select a minimum of 30 credit hours of coursework		30
Select 3 credit hours of directed project		3
Total Credit Hours		33

All Coursework Option

Course	Title	Hours
Select a minimum of 33 hours of coursework and receive an external certification, or select a minimum of 36 hours of coursework		33-36
Total Credit Hours		33-36

Details of the 33-credit-hour All Coursework MSIE option with external certification:

Terminal activity for the all coursework option can be satisfied by receiving any of the following external certificates:

- Any of the following ASQ certifications:
 - Certified Quality Engineer-CQE
 - Reliability Engineer-CRE
 - Six Sigma Black Belt-CSSBB
 - Six Sigma Green Belt-CSSGB
 - Software Quality Engineer-CSQE
- Any of the following modules or certifications from APICS:
 - One module from the Certified Production and Inventory Management
 - Basics of Supply Chain Management
 - Master Planning of Resources
 - Detailed Scheduling and Planning
 - Execution and Control of Operations
 - Strategic Management of Resources
 - Certified Supply Chain Professional
- Any of the SME certifications:
 - Certified Manufacturing Engineering (CMfgE) Certification
 - Lean Certification
 - Six Sigma Certification

Students need approval of the graduate coordinator for any other professional certifications not listed above. Note that certification resulting from completing any training module/online class does not qualify as an external certification.