

MS in Industrial & Systems Engineering Program Requirements

1. Admission to the Master of Science Program in Industrial & Systems Engineering

To apply for admission to the MS in Industrial & Systems Engineering, applicants should submit an application and its supporting documents on the online application portal through the Graduate School's website (<http://www.ncat.edu/tgc/admissions/how-to-apply.html>). It is strongly recommended that all required documents be received on or before the Graduate School's priority deadlines (February 1 for fall admissions and September 1 for spring admissions). The Department will evaluate applications within approximately 14 days of their receipt from the Graduate School.

To be considered for admission to the MS in Industrial & Systems Engineering an applicant must have:

1. A Bachelor degree and its cumulative Grade Point Average of 2.8 or above on a 4-point scale.
2. Evidence of English language proficiency for international applicants. Normally, an acceptable score on TOEFL, IELTS, or PTE test is required if the highest degree is from non-English speaking country. The official TOEFL score (at least 80 or higher internet-based score), or IELTS score (6.5 or higher effective July 1 2016), or PTE Academic score (53 or higher). These scores are reportable for a period of two years from the date of the exam. If the scores are older than two years, the student must re-take the exam.
3. Applicants without a BS in Industrial and Systems Engineering will need to take relevant background courses (GEEN 162: Computer programming in Visual Basic for Engineers / GEEN 163: Introduction to Computer Programming, MATH 132: Calculus II, ISEN 370: Engineering Statistics, ISEN 600: Survey of Industrial and Systems Engineering Topics).

However, meeting the requirements above does not guarantee acceptance as these are minimum requirements to be considered for admission.

2. Curriculum Requirements

The Department offers three options for the MS degree: a thesis option, a project option, or a course-only option.

Specific requirements for each option are given as below:

The total credit hours are 30 for all three options. Specifically, the student must complete the following credit hour requirements:

(i) Thesis option:

- Take Core courses (12 credits): ISEN 625: Information Systems, ISEN 655: Production Planning & Scheduling, ISEN 665: Human Machine Systems, ISEN 675: Design and Analysis of Experiments

- Take 12 credits of additional ISEN courses with approval of advisor
- Thesis (ISEN797: 6 credits)
- Take ISEN 992 (Seminar) twice in two semesters

(ii) Project Option:

- Take Core courses (12 credits): ISEN 625: Information Systems, ISEN 655: Production Planning & Scheduling, ISEN 665: Human Machine Systems, ISEN 675: Design and Analysis of Experiments
- Take 15 credits of additional ISEN courses with approval of advisor
- Project (ISEN 796: 3 credits)
- Take ISEN 992 (Seminar) twice in two semesters

(iii) Course Option:

- Take Core courses (12 credits): ISEN 625: Information Systems, ISEN 655: Production Planning & Scheduling, ISEN 665: Human Machine Systems, ISEN 675: Design and Analysis of Experiments
- Take 18 credits of additional ISEN courses with approval of advisor
- Take ISEN 992 (Seminar) twice in two semesters
- Pass comprehensive exam