Master of Science Degree Requirements

The M.S.I.E. program consists of a minimum of 41 credit hours, with a Coursework Only and a Thesis option.

**Coursework Only Option:**

- 21 Graded course credits in Industrial Engineering (500 level or above)
- 17 Graded course credits in Technical Electives (a maximum of 9 technical elective credits may be taken at the 400 level)
- 3 Credits of IE Seminar: IND E 591, 592, 593 (1 credit each)

**Total Credits:** 41

**Coursework Only students are expected to:**

1. Submit a Degree Plan to the ISE Academic Counselor by the end of the second quarter. The Degree Plan should reflect three or more quarters of scheduled classes that satisfy the requirements. The Coursework Only Degree Plan can be referenced at [http://depts.washington.edu/ie/homepage/Forms.htm](http://depts.washington.edu/ie/homepage/Forms.htm).

2. Apply on-line with the Graduate School to obtain the Master’s “Warrant” when ready to graduate. **The deadline is the end of the seventh week of the quarter you plan to graduate** (without incurring a late fee). Any questions regarding this procedure should be addressed to the IE Academic Counselor.

3. Obtain the required signatures on the Master’s “Warrant” (refer to the IE Academic Counselor on who needs to sign the Warrant), provide a copy of the signed Warrant to the IE Advising Office, and return the signed original to the Graduate School (G1 Communications) no later than 5:00pm on the last day of the quarter.

**Thesis Option:**

- 18 Graded course credits in Industrial Engineering (500 level or above)
- 11 Graded course credits in Technical Electives (a maximum of 9 technical elective credits may be taken at the 400 level)
- 9 Credits of Master's Thesis (IND E 700)
- 3 Credits of IE Seminar: IND E 591, 592, 593 (1 credit each)

**Total Credits:** 41

**Thesis students are expected to:**

1. Submit a Degree Plan to the ISE Academic Counselor by the end of the second quarter. The Degree Plan should reflect three or more quarters of scheduled classes which satisfy the requirements and complement the student's research interests. Students must select an advisor from the ISE faculty at this time. The Thesis Degree Plan can be referenced at [http://depts.washington.edu/ie/current/msie/degree](http://depts.washington.edu/ie/current/msie/degree).

2. Select Master’s thesis committee members by the end of the third quarter. The committee should consist of three faculty members, at least two of which are ISE faculty (including the Chair). The third faculty member may be from outside of Industrial Engineering. Submit a thesis proposal (approved and signed by your committee Chair) to the ISE Academic Counselor before registering for IND E 700, Master’s Thesis.

3. Apply on-line with the Graduate School to obtain the Master’s “Warrant” when ready to graduate. **The deadline is the end of the seventh week of the quarter you plan to graduate** (without incurring a late fee). Any questions regarding this procedure should be addressed to the ISE Academic Counselor.

4. Present the thesis research in an ISE seminar, where it must be approved by the thesis committee and satisfy University requirements. Obtain the required signatures on the Master’s “Warrant” (refer to the ISE Academic Counselor on who needs to sign the Warrant) and return the signed Warrant to the ISE Advising Office.

5. The final master’s thesis is to be submitted on-line to the Graduate School by the last day of the quarter. See the Graduate School’s website for instructions: [http://www.grad.washington.edu/students/etd/info.shtml](http://www.grad.washington.edu/students/etd/info.shtml).
Additional MSIE Degree Requirements (for students admitted autumn 2011 and later):

All students must take **one course from each** of the following four sections:

**Section A**
- IND E 512 Intro to Optimization
- IND E 513 Linear Optimization Models in Engineering
- IND E 516 Applications of Optimization for Engineering Design

**Section B**
- IND E 508 Stochastic Processes in Engineering
- IND E 535 Engineering Simulation

**Section C**
- IND E 521 Quality Control in Manufacturing
- IND E 524 Robust Design and Quality Engineering
- IND E 526 Reliability in Product Design and Testing
- IND E 546 Analytical Methods in Human Factors and Transportation

**Section D**
- IND E 543 Virtual Interface Technology
- IND E 549 Human Factors in Engineering Design
- IND E 570 Supply Chain Systems