

# Industrial Engineering (Minor)

The minor in Industrial Engineering is designed to provide undergraduate engineering students and other science majors in curricula other than Industrial Engineering with the fundamentals of industrial engineering necessary for advanced study in the discipline and/or employment in industrial engineering related occupations. The minor in Industrial Engineering offers a structured program that allows students to acquire some level of expertise in areas common to all industrial engineers as well as a deeper knowledge in at least one specific area of interest.

## Admissions and Certification of Minor

To be admitted to the program, a student must have a GPA of at least 2.0. Application for admission to any University minor program is now available via MyPack Portal. Admission will be based upon the student's academic record, and in most cases no longer requires departmental review. Go to Add a Minor (<https://studentservices.ncsu.edu/your-degree/coda-home/add-a-minor/>) to apply. The minor must be completed no later than the semester in which the student expects to graduate from his or her degree program.

## Contact Person

**Kanton Reynolds, Ph.D.**

4311E Fitts-Woolard Hall

919.515.0605

kreynolds@ncsu.edu

**Effective Date: 6/2011**

**SIS Code: 14IEM**

## Plan Requirements

- Complete a minimum of 15 credit hours of ISE designated courses.
- Students must complete 6 hours of required courses and 9 hours of elective courses.
- All courses must be completed with a grade of 'C-' or higher.

Code	Title	Hours	Counts towards
<b>Required Courses</b>		<b>6</b>	
ISE 311	Engineering Economic Analysis		
ISE 4XX	Any 400-level ISE Course		
<b>Elective Courses</b>		<b>9</b>	
ISE 135	Computer-Based Modeling for Industrial Engineering		
or TE 110	Computer-Based Modeling for Engineers		
ISE 216	Product Development and Rapid Prototyping		

ISE 316	Manufacturing Engineering I - Processes
ISE 352	Fundamentals of Human-Machine Systems Design
ISE 361	Deterministic Models in Industrial Engineering
ISE 362	Stochastic Models in Industrial Engineering
ISE 408	Design and Control of Production and Service Systems
ISE 416	Manufacturing Engineering II - Automation
ISE 417	Database Applications in Industrial & Systems Engineering
ISE 441	Introduction to Simulation
ISE 443	Quality Design and Control
ISE 452	Advanced Human-Machine Systems Design
ISE 453	Modeling and Analysis of Supply Chains
<b>Total Hours</b>	<b>15</b>