

Program Distribution Requirements for Industrial Engineering Major (IE)

The normal period of residency at WPI is 16 terms. In addition to the WPI requirements applicable to all students (see page 7), students wishing to receive the ABET accredited degree designated “Industrial Engineering” must complete a minimum of 10 units of study in the areas of mathematics, basic science, and engineering topics as follows:

REQUIREMENTS	MINIMUM UNITS
1. Mathematics and Basic Science (Notes 1, 2)	4
2. Industrial Engineering Topics (including the MQP) (Notes 3, 4)	6

NOTES:

1. Mathematics must include differential and integral calculus, ordinary differential equations, and 2/3 units in probability and statistics.
2. Basic Science must include both chemistry and physics, with a minimum of two courses in either.
3. Must include 1/3 unit of Capstone Design Experience.
4. Industrial Engineering Topics must include courses in the following three topic areas.
 - a. 3 units of Industrial Engineering core courses, including 1/3 unit in each of the following 9 areas: financial modeling, deterministic operations research methods, operations process design, materials management, simulation, stochastic methods in operations research, quality control, information systems design, and leadership skills.
 - b. 1 unit in Industrial Engineering electives. 3000/4000 level OIE courses, MIS 3720, MIS 4720, and Operations Research courses at the 3000/4000 level in Mathematics qualify. Courses in financial modeling and organizational science do not qualify.
 - c. 1 unit in technical electives. Industrial Engineering electives and any other Engineering Science/Design courses qualify.

INDUSTRIAL ENGINEERING PROGRAM CHART

OVERVIEW OF DEGREE REQUIREMENTS FOR THE IE PROGRAM

	FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
DEGREE REQUIREMENTS	HUMANITIES AND ARTS (2 Units) 6 courses including Inquiry Seminar/Practicum			
	SOCIAL SCIENCE (2/3 Units)			
			IQP (1 Unit)	
	MATH/SCIENCE (4 Units) Calculus/Diff. Equations Statistics Physics/Chemistry			
		IE CORE (3 Units) BUS 1010 BUS 2080 BUS 3020 CS 2118 OIE 2850 OIE 3401 OIE 3420 OIE 3460 OIE 3501		
			IE ELECTIVES (1 Unit) Choice of: OIE 3405 OIE 4410 OIE 4460 MIS 3720 MIS 4720 3000/4000 level OR courses in MA	
			TECHNICAL ELECTIVES (1 Unit) Any engineering/science design course	
				MQP (1 Unit)
		FREE ELECTIVES (1 Unit)		
		PHYSICAL EDUCATION (1/3 Unit)		