



COLLEGE OF  
ENGINEERING, ARCHITECTURE  
AND TECHNOLOGY

# INDUSTRIAL ENGINEERING AND MANAGEMENT



## WHAT IS INDUSTRIAL ENGINEERING AND MANAGEMENT?

Industrial Engineering and Management (IEM) is an engineering discipline that focuses on designing, operating, managing, and continuously improving manufacturing and service systems so that they are effective and efficient.

## WHY INDUSTRIAL ENGINEERING AND MANAGEMENT AT OSU?

Industrial Engineering is the most people-oriented discipline within the engineering family. The IEM program at OSU is the third oldest industrial engineering program in the world and is highly ranked. Unique to Industrial Engineering is a program designed to enable IEM students to obtain a Masters of Business Administration (MBA) in one year after the undergraduate program is completed. Students from industrial engineering and other engineering disciplines also have an opportunity to pursue an accelerated one-year Master's degree in Industrial Engineering and Management or a Master's degree in Engineering and Technology Management, a 4+1 option.

## HIGHLIGHTS

- Alumni hold or have held top management positions for major corporations
- World-class faculty
- Gender-balanced classes
- IEM is a close-knit family of faculty, staff, students and alumni
- Modern facilities in the 3rd floor of Engineering North
- Graduate program ranked in the top 25 among public universities in the US by US News and World report

## CAREER INDUSTRIES & FOCUS AREAS

### CAREER OPPORTUNITIES

Professions in, but not limited to, healthcare, oil and gas, transportation, manufacturing organizations, service enterprises and governmental organizations with the following possible job titles:

- Food Processing Engineer
- Health & Safety Engineer
- Manufacturing Engineer
- Process Engineer
- Project Manager
- Supply Chain Engineer
- Transportation Engineer
- Quality Engineer



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# Typical Four-Year Curriculum

## FIRST YEAR

### Fall Semester

HIST	1103	American History
ENGR	1111	Intro to Engineering
MATH	2144	Calculus I
CHEM	1414	Gen Chemistry for Engr
ENGL	1113	Composition I

### Spring Semester

ENGR	1412	Intro Engr Comp Programming
POLS	1113	American Gov't
PHYS	2014	University Physics I
MATH	2153	Calculus II
XXXX	XXXX	"H/D/I" Elective

## SECOND YEAR

### Fall Semester

ENSC	2113	Statics
PHYS	2114	University Physics II
MATH	2163	Calculus III
ENGR	1322	Engr Design with CAD
IEM	2903	Intro to Industrial Engineering
IEM	3103	Probability and Statistics for Engr I

### Spring Semester

IEM	3703	Probability and Statistics for Engr II
SPCH	2713	Speech
MATH	3013	Linear Algebra
ENSC	3313	Materials Science
IEM	3713	Software Prog. for Data Analytics

## THIRD YEAR

### Fall Semester

IEM	3813	Work Design, Ergonomics, and Human Perf.
IEM	3403	Engineering Project Management
IEM	3303	Manufacturing Processes
IEM	4013	Operations Research
ENSC	XXX3	Engineering Science Elective

### Spring Semester

IEM	4713	Systems Simulation Modeling
IEM	3523	Engr Cost Info & Control Sys
IEM	3503	Engr Econ
ENGL	3323	Technical Writing
ENSC	XXX3	Engineering Science Elective

## FOURTH YEAR

### Fall Semester

IEM	4113	Industrial Experimentation
IEM	4723	Info Sys Design and Development
IEM	4203	Fac & Material Handling Sys Dsgn
IEM	4613	Prod Planning and Control Sys
IEM	XXX3	IEM Elective

### Spring Semester

IEM	4913	Senior Design
IEM	4103	Quality Control and Reliability Analysis
IEM	4623	Supply Chain and Logistics
IEM	XXX3	IEM Elective
XXXX	XXXX	"H/D/I" Elective

# TOTAL HOURS: 123

Accredited by the Engineering  
Accreditation Commission of ABET,  
<http://www.abet.org>.



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This course plan is for general guidance only. An official course plan will be provided upon enrollment.

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