

# MANUFACTURING SYSTEMS OPTION

This option is offered within the following major(s):

- Manufacturing Engineering - College of Engineering (<http://catalog.oregonstate.edu/college-departments/engineering/school-mechanical-industrial-manufacturing-engineering/manufacturing-engineering-bs-hbs>)

This option, taken in conjunction with the BS in Manufacturing Engineering degree, will prepare students for careers in manufacturing industry that focus on production system design, analysis, and improvement.

CHE 445	POLYMER ENGINEERING AND SCIENCE
ECE 418	SEMICONDUCTOR PROCESSING
MATS 322	MECHANICAL PROPERTIES OF MATERIALS
ME 312	THERMODYNAMICS
ME 316	MECHANICS OF MATERIALS
ME 331	INTRODUCTORY FLUID MECHANICS
ME 383	MECHANICAL COMPONENT DESIGN
ME 480	MATERIALS SELECTION
ME 499	SPECIAL TOPICS
MFGE 438	COMPOSITES MANUFACTURING
MFGE 531	MICROMANUFACTURING
ROB 421	APPLIED ROBOTICS

Total Hours 39

Code	Title	Hours
<b>Required</b>		
ENGR 390	ENGINEERING ECONOMY	3
IE 212	COMPUTATIONAL METHODS FOR INDUSTRIAL ENGINEERING	4
IE 285	INTRODUCTION TO INDUSTRIAL AND MANUFACTURING ENGINEERING	3
or MFGE 285	INTRODUCTION TO INDUSTRIAL AND MANUFACTURING ENGINEERING	
IE 355	STATISTICAL QUALITY CONTROL	4
IE 356	EXPERIMENTAL DESIGN FOR INDUSTRIAL PROCESSES	4
IE 366	WORK SYSTEMS ENGINEERING	4
IE 367	PRODUCTION PLANNING AND CONTROL	4
IE 368	FACILITY DESIGN AND OPERATIONS MANAGEMENT	4

Option Code: 957

<b>Restricted Electives</b>	
Select a minimum of 9 credits from either one or both of the lists below.	9

<i>Systems Electives:</i>	
IE 355	STATISTICAL QUALITY CONTROL
IE 356	EXPERIMENTAL DESIGN FOR INDUSTRIAL PROCESSES
IE 366	WORK SYSTEMS ENGINEERING
IE 367	PRODUCTION PLANNING AND CONTROL
IE 368	FACILITY DESIGN AND OPERATIONS MANAGEMENT
IE 411	VISUAL PROGRAMMING FOR INDUSTRIAL APPLICATIONS
IE 412	INFORMATION SYSTEMS ENGINEERING
IE 415	SIMULATION AND DECISION SUPPORT SYSTEMS
IE 418	TELECOMMUNICATION CONCEPTS
IE 419	WIRELESS NETWORKS
IE 425	INDUSTRIAL SYSTEMS OPTIMIZATION
IE 426	STOCHASTIC MODELS OF INDUSTRIAL SYSTEMS
IE 470	MANAGEMENT SYSTEMS ENGINEERING
IE 471	PROJECT MANAGEMENT IN ENGINEERING
IE 475	ADVANCED MANUFACTURING COSTING TECHNIQUES

Process Electives: