

# PRODUCT DEVELOPMENT 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, will prepare students for careers in manufacturing industry that focus on the development of new products and equipment.

## Option Code: 833

Code	Title	Credits
<b>Required Courses</b>		
ENGR 202	ELECTRICAL FUNDAMENTALS II	3
ENGR 391	ENGINEERING ECONOMICS AND PROJECT MANAGEMENT	3
MATS 322/ENGR 322	MECHANICAL PROPERTIES OF MATERIALS	3
ME 312/NSE 312	THERMODYNAMICS	4
ME 316	MECHANICS OF MATERIALS	3
ME 317	INTERMEDIATE DYNAMICS	4
ME 331/NSE 331	INTRODUCTORY FLUID MECHANICS	4
ME 332/NSE 332	HEAT TRANSFER	4
ME 373	MECHANICAL ENGINEERING METHODS	4
ME 383	MECHANICAL COMPONENT DESIGN	4
<b>Restricted Elective</b>		
Select four credits from the following courses:		4
CHE 445	POLYMER ENGINEERING AND SCIENCE	
ECE 418	SEMICONDUCTOR PROCESSING	
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	
ME 430	SYSTEMS DYNAMICS AND CONTROL	
or ME 451	INTRODUCTION TO INSTRUMENTATION AND MEASUREMENT SYSTEMS	
ME 480	MATERIALS SELECTION	
ME 499	SPECIAL TOPICS	
MFGE 438	COMPOSITES MANUFACTURING	
MFGE 499	SPECIAL TOPICS	
ROB 421	APPLIED ROBOTICS	
Total Credits		40

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