MANUFACTURING SYSTEMS OPTION

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


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.

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

**Restricted Electives**

Select a minimum of 9 credits from either one or both of the lists below.

9

**Systems Electives:**

- 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:**

- 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

Option Code: 957