# Manufacturing Engineering Technology B.S. Course Sequence (Typical)

**Undergraduate Catalog - 2014/2015**  
**Total undergraduate credits**: 124

### Freshman (fall)
- ENGL 103 - Composition I
- ENGL 104 - Composition II
- CHEM 110 - Chemistry or CHEM 210 - General Chem I
- CHEM 111 - Chem Lab or CHEM 212 - Gen Chem Lab I
- MATH 155 - Trigonometry
- TECH 211 - Computer-Aided-Design

### Freshman (Spring)
- MATH 229 - Calculus I
- ENGL 104 - Composition II
- TECH 265 - Basic Manufacturing Processes
- TECH 262 - Machine Production Processes
- PHYS 210 - General Physics I

### Sophomore (fall)
- MATH 230 - Calculus II
- TECH 175 - Electronics and Electricity Fundamentals
- TECH 175A - Electronics & Electricity Fund Lab
- TECH 393 - Structure and Properties of Materials
- General Education Requirement 1

### Sophomore (Spring)
- TECH 210 - Engineering Mechanics
- TECH 212 - Engineering Dynamics
- TECH 175A - Electronics & Electricity Fund Lab
- STAT 208 - Basic Stats or STAT 301 - Elementary Stats
- Manufacturing Processes Elective 1

### Junior (fall)
- TECH 369 - Strength of Materials
- TECH 391 - Industrial Quality Control
- ENgl 308 - Tech Writing or Mgmt 346 - Bus Comms
- General Education Requirement 3

### Junior (Spring)
- TECH 326 - Fluid Mechanics/Lab
- TECH 342 - Manufacturing Component Design
- TECH 443 - Engineering Economy
- Manufacturing Processes Elective 2
- General Education Requirement 4

### Senior (fall)
- TECH 311 - Computer-Aided Modeling
- TECH 415 - Applied Industrial Experimental Analysis
- TECH 420 Computer-Integrated Manufacturing
- Manufacturing Systems Elective 1
- General Education Requirement 5

### Senior (Spring)
- TECH 362 - Numerical Control Systems
- TECH 423 - Automated Manufacturing Systems
- TECH 478 - Egr Tech Senior Design Project II
- Manufacturing Systems Elective 2
- General Education Requirement 6

### Manufacturing Systems Electives (2 courses)
- TECH 305 - Green Technologies
- TECH 404 - Supervision in Industry
- TECH 406 - Facilities Management Technology
- TECH 409 - Internship
- TECH 429 - Plant location, Layout, and Materials Handling
- TECH 434 - Human Factors in Industrial Accident Prevention
- TECH 442 - Work Simplification and Measurement
- TECH 444 - Production Control Systems
- TECH 484 - Energy Management
- TECH 492 - Manufacturing Distribution Applications
- TECH 496 - Industrial Project Management

### Manufacturing Processes Electives (2 courses)
- TECH 260 - Metal Fabrication Processes
- TECH 312 - Design Dimensioning and Tolerancing
- TECH 313 - Product Design & Development for Manufacturability
- TECH 344 - Materials and Processes in the Plastics Industry
- TECH 345 - Plastic Molding Processes
- TECH 365 - Metrology
- TECH 416 - Heating, Ventilating, and Air Cond Tech
- TECH 417 - Design for Energy Efficiency and Green Materials
- TECH 427 - Testing Methods, Procedures, & Selection of Sustainable Plastics
- TECH 479 - Special Topics in Engineering Technology
### Required Technology Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>Tech 175</td>
<td>Electricity and Elect Fund</td>
<td>Math 155, Phys 210</td>
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<tr>
<td>Tech 175a</td>
<td>Elements of Elect Fund</td>
<td>Math 155</td>
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<tr>
<td>Tech 210</td>
<td>Electromagnetism</td>
<td>Math 155, Phys 210</td>
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<td>Tech 211</td>
<td>CAD/Comp-Aided Modeling</td>
<td>Math 155, Tech 211</td>
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<td>Tech 212T</td>
<td>Tech 210, Math 229</td>
<td>Math 155</td>
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<tr>
<td>Tech 262</td>
<td>Machinery Dynamics</td>
<td>Math 155</td>
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<tr>
<td>Tech 265</td>
<td>Basic Manufacturing Processes</td>
<td>Math 155</td>
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</tbody>
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### Technology Department Electives

#### Manufacturing Systems

- **Choose 2 courses**
  - Tech 305: p: Math 155, Chem 110 or Math 110
  - Tech 404: p: Math 155, Tech 265
  - Tech 406: p: Math 155, Tech 265
  - Tech 409: p: Junior standing
  - Tech 429: p: Math 155 & Tech 265

#### Manufacturing Processes - Choose 2 courses

- **Choose 2 courses**
  - Tech 260: p: Math 115
  - Tech 312: p: Math 115, Tech 260
  - Tech 313: p: Math 115, Tech 260
  - Tech 365: p: Math 115
  - Tech 416: p: Math 115, Phys 210

### General Education Courses - See Tech Department website or Undergraduate Catalog

- **Humanities and the arts - 3 courses**
- **Interdisciplinary Studies - 1 course**
- **Social Science - 2 courses**

Legend:
- **p**: prerequisite
- **c**: corequisite
- **f**: fall semester
- **s**: spring semester