# Engineering Technology - MECHATRONICS Concentration

**Bachelor of Science**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Semester</th>
<th>Minimum Grade of D Required:</th>
<th>Grade</th>
<th>Semester</th>
<th>Minimum Grade of C Required:</th>
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<tbody>
<tr>
<td>ENGL 101</td>
<td>Freshman Composition (3 hrs)</td>
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<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing (3 hrs)</td>
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<tr>
<td>ENGL 230, 231 or 232 (3 hrs)</td>
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<tr>
<td>ENGL 322</td>
<td>Intro to Prof and Technical Writing (3 hrs)</td>
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<tr>
<td>Biology - GBIO 151 (3 hrs)</td>
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<td>Biology - BIOL 152 (1 hr)</td>
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<tr>
<td>Chemistry - CHEM 121 Lecture (3 hrs)</td>
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<tr>
<td>Physics - PHYS 191 Lecture (3 hrs)</td>
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<td>Physics - PLAB 193 Lab (1 hr)</td>
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<tr>
<td>Physics - PHYS 192 Lecture (3 hrs)</td>
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<td>Physics - PLAB 194 Lab (1 hr)</td>
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<td>ART, DNCE, MUS, or THEA (3 hrs)</td>
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<td>HIST 101, 102, 201, or 202 (3 hrs)</td>
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<td>COMM 211</td>
<td>Introduction to Public Speaking (3 hrs)</td>
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<td>ECON 201 or ECON 202 (3 hrs)</td>
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<td>ANTH, ECON, POLI SCI, PSYC, or SOC (3 hrs)</td>
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<td>SE 101 or Free Elective (2 hrs) not required of transfer or re-admitted students with 30 hours or more.</td>
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<tr>
<td>MATH 175</td>
<td>Precalculus with Trigonometry (5 hrs)</td>
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<td>MATH 200</td>
<td>Calculus I (5 hrs)</td>
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**ENGINEERING TECHNOLOGY (31 hrs)**

- ET 100 Introduction to Engineering Technology (3 hrs)
- ET 111 Engineering Graphics (3 hrs)
- ET 202 Computer Applications (3 hrs)
- ET 212 Introduction to Programming (3 hrs)
- ET 213 Electrical Circuits (3 hrs)
- ET 241 Introduction to Engineering Materials (3 hrs)
- ET 245 Control and Automation (3 hrs)
- ET 250 Mechatronics Systems (3 hrs)
- ET 251 Mechatronics Systems (3 hrs)
- ET 252 Mechatronics Systems (3 hrs)

**MECHATRONICS CONCENTRATION (36 hrs)**

- ET 213 Electronics I (3 hrs)
- ET 225 Electronics I (3 hrs)
- ET 320 Microprocessors and Interfacing (3 hrs)
- ET 342 Programmable Logic Controllers (3 hrs)
- ET 345 Control and Automation (3 hrs)
- ET 348 Robotics and Automation (3 hrs)

**GENERAL EDUCATION (17 hrs)**

- ET 205 Mathematical Methods for Engineering (3 hrs)
- ET 215 Computer Logic and Organization (3 hrs)
- ET 225 Electronics I (3 hrs)
- ET 320 Microprocessors and Interfacing (3 hrs)
- ET 342 Programmable Logic Controllers (3 hrs)
- ET 422 Mechatronics Systems (3 hrs)
- ET 425 Control and Automation (3 hrs)

**NATURAL SCIENCE (15 hrs)**

- MATH 175 Precalculus with Trigonometry (5 hrs)
- MATH 200 Calculus I (5 hrs)

**ENGINEERING TECHNOLOGY (31 hrs)**

- ET 205 Mathematical Methods for Engineering (3 hrs)
- ET 215 Computer Logic and Organization (3 hrs)
- ET 320 Microprocessors and Interfacing (3 hrs)
- ET 425 Control and Automation (3 hrs)

**MECHATRONICS CONCENTRATION (36 hrs)**

- ET 213 Electronics I (3 hrs)
- ET 225 Electronics I (3 hrs)
- ET 320 Microprocessors and Interfacing (3 hrs)
- ET 342 Programmable Logic Controllers (3 hrs)
- ET 422 Mechatronics Systems (3 hrs)

**Catalyst Year: 2021-2022**

**Last Updated: 08/25/2021**

**Total Semester Hours: 124**

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Technical Electives can be chosen from:

- CMPS 280 Algorithm Design & Implementation II
- ET 362 Solar and Geothermal Systems
- ET 365 Power Electronics
- ET 371 Engineering Dynamics
- ET 376 Applied Fluid Mechanics
- ET 381 Strength of Materials
- ET 385 Mechanical Design
- ET 400 Internship

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- CMPS 280 Algorithm Design & Implementation II
- ET 362 Solar and Geothermal Systems
- ET 365 Power Electronics
- ET 371 Engineering Dynamics
- ET 376 Applied Fluid Mechanics
- ET 381 Strength of Materials
- ET 385 Mechanical Design
- ET 400 Internship