### Engineering Technology/Manufacturing Concentration

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>CREDIT HOURS</th>
<th>TERM COMPLETED</th>
<th>GRADE</th>
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</thead>
<tbody>
<tr>
<td><strong>Semester I (Fall)</strong></td>
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<tr>
<td>COLL 1000  First Year Seminar</td>
<td>1</td>
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<tr>
<td>ENGL 1010  English Composition I</td>
<td>3</td>
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<tr>
<td>ENST 1310  Computers in Engineering Technology</td>
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<tr>
<td>ENST 1340  Machine Tool Technology</td>
<td>3</td>
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<tr>
<td>MATH 1730(^1) Precalculus</td>
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<td><strong>Semester II (Spring)</strong></td>
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<tr>
<td>ENST 1311  Computer Aided Design I</td>
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<td>ENST 1350  Industrial Safety</td>
<td>3</td>
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<td>ENST 1370  Manufacturing Processes</td>
<td>3</td>
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<td>ENST 2340  CNC Programming I</td>
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<td>METC 1310  Statics with Applications</td>
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<td><strong>Semester III (Fall)</strong></td>
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<tr>
<td>COMM 2045  Public Speaking</td>
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<td>ENST 1351  GD &amp; T</td>
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<td>ENST 1372  3-D Additive Manufacturing</td>
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<tr>
<td>ENST 2341  CNC Programming II</td>
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<td>METC 2310  Strength of Materials</td>
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<td><strong>Semester IV (Spring)</strong></td>
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<tr>
<td>ENST 2342  Advanced CNC Programming</td>
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<td>ENST 2390  Capstone</td>
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<tr>
<td>HUM/FA(^2) Humanities/Fine Arts Elective</td>
<td>3</td>
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<tr>
<td>PHYS 2010(^3) Non-Calculus Physics I</td>
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<tr>
<td>SBS(^2) Social/Behavioral Sciences Elective</td>
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</table>

**Total Credit Hours Needed for Graduation:** 61

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\(^1\)Students transferring to a 4-year institution must complete MATH 1730 (5 credits) or both MATH 1710 and MATH 1720 (6 credits) to meet transfer requirements. Students not transferring to a 4-year institution may complete MATH 1050 (3 credits).

\(^2\)HUM/FA /SBS

See the list of General Education electives below.

\(^3\)PHYS 2010

Students transferring to a 4-year institution must complete PHYS 2010 (4 credits) to meet transfer requirements. Students not transferring to a 4-year institution may complete ENST 1352 (3 credits).

Note: a minimum of 60 credit hours are needed for graduation.
2018-2019 General Education Electives by Category

This is a General Education course transferable within the Tennessee Board of Regents System.
★ This course is directly equivalent to a course at the University of Tennessee, Knoxville.

Communication
- COMM 2045 - Public Speaking ♦ ★
- ENGL 1010 - English Composition I ♦ ★
- ENGL 1020 - English Composition II ♦ ★

Humanities/Fine Arts
- ART 2010 - Art History Survey I ♦ ★
- ART 2020 - Art History Survey II ♦ ★
- ENGL 2035 - Introduction to Fiction ♦ ★
- ENGL 2055 - African-American Literature ♦ ★
- ENGL 2110 - Early American Literature ♦ ★
- ENGL 2120 - Modern American Literature ♦ ★
- ENGL 2150 - Appalachian Literature
- ENGL 2210 - Early British Literature ♦ ★
- ENGL 2220 - Modern British Literature ♦ ★
- ENGL 2310 - Early World Literature ♦ ★
- ENGL 2320 - Modern World Literature ♦ ★
- ENGL 2510 - Introduction to Poetry ♦ ★
- ENGL 2520 - Introduction to Drama ♦ ★
- ENGL 2860 - Introduction to Film ♦ ★
*(ENGL 2860 will not fulfill a literature elective.)*
- MUS 1030 - Music Appreciation ♦ ★
- PHIL 1030 - Introduction to Philosophy ♦ ★
- PHIL 1040 - Introduction to Ethics ♦ ★
- PHIL 1300 - Critical Thinking ♦ ★
- PHIL 1500 - Philosophy & Film
- PHIL 2200 - Introduction to World Religions ♦ ★
- PHO 1200 - History of Photography
- THEA 1030 - Introduction to Theatre ♦ ★

Social/Behavioral Sciences
- AAST 2200 - African-American Studies ♦ ★
- ANTH 1230 - Introduction to Cultural Anthropology ♦ ★
- ECON 2100 - Principles of Macroeconomics ♦ ★
- ECON 2200 - Principles of Microeconomics ♦ ★
- GEOG 1000 - Introduction to Geography ♦
- PHED 1100 - Concepts of Wellness
- POLS 1010 - Introduction to Political Science ♦ ★
- POLS 1030 - American Government ♦ ★
- PSYC 1030 - Introduction to Psychology ♦ ★
- PSYC 2100 - Psychology of Human Development ♦ ★
- PSYC 2120 - Social Psychology
- PSYC 2130 - Lifespan Psychology ♦ ★
- PSYC 2210 - Biological Basis of Behavior ♦
- SOCI 1010 - Introduction to Sociology ♦ ★
- SOCI 1040 - Social Problems ♦ ★
- WGST 2050 - Introduction to Women/Gender Studies ♦ ★

Natural Sciences
- BIOL 1110 - General Biology I ♦ ★
- BIOL 1120 - General Biology II ♦ ★
- BIOL 2010 - Human Anatomy & Physiology I ♦ ★
- BIOL 2020 - Human Anatomy & Physiology II ♦ ★
- BIOL 2310 - General Botany I ♦ ★
- BIOL 2320 - General Botany II ♦ ★
- CHEM 1010 - Introductory Chemistry I ♦ ★
- CHEM 1020 - Introductory Chemistry II ♦ ★
- CHEM 1050 - Concepts of Chemistry
- CHEM 1110 - General Chemistry I ♦ ★
- CHEM 1120 - General Chemistry II ♦ ★
- GEOL 1040 - Physical Geology ♦ ★
- GEOL 1050 - Historical Geology ♦ ★
- GEOL 1300 - Environmental Science W/Lab ♦ ★
- PHYS 1070 - Concepts of Physics
- PHYS 2010 - Non-Calculus Physics I ♦ ★
- PHYS 2020 - Non-Calculus Physics II ♦ ★
- PHYS 2110 - Calculus Based Physics I ♦ ★
- PHYS 2120 - Calculus Based Physics II ♦ ★

Mathematics
- MATH 1010 - Math for General Studies ♦ ★
- MATH 1050 - Trigonometric Applications
- MATH 1130 - College Algebra ♦ ★
- MATH 1530 - Introductory Statistics ♦ ★
- MATH 1630 - Finite Mathematics ♦ ★
- MATH 1710 - PreCalculus Algebra ♦ ★
- MATH 1720 - PreCalculus Trigonometry ♦ ★
- MATH 1730 - PreCalculus ♦ ★
- MATH 1830 - Applied Calculus ♦ ★
- MATH 1910 - Calculus I ♦ ★

Revised: May 17, 2018 for AAS Checklists