

**INDUSTRIAL TECHNOLOGY CURRICULUM****Manufacturing option 120 credits required for graduation (2014-2015 Catalog)****Interpersonal and Public Communication Skills (13 credits)**

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|---|---------------------|---|---|
| 3 | ENGL 150 (F.S.SS.)  | Critical Thinking and Communications              |   |
| 3 | ENGL 250 (F.S.SS.)  | Written, Oral, Visual, and Electronic Composition |   |
| 3 | ENGL 302 (F.S.SS.)  | Business Communication, <b>or</b>                 |   |
|   |                     | ENGL 309 (F.S.)                                   | Report and Proposal Writing, <b>or</b>                                  |
|   |                     | ENGL 314 (F.S.SS.)                                | Technical Communication, <b>or</b>                                      |
|   |                     | AGEDS 327 (F.S.)                                  | Advanced Communication for Agriculture and Life Sciences                |
| 3 | SP CM 212 (F.S.SS.) | Fundamentals of Public Speaking, <b>or</b>        |   |
|   |                     | AGEDS 311 (F.S.)                                  | Presentation and Sales Strategies for Agricultural Audiences, <b>or</b> |
|   |                     | COMST 214 (F.S.)                                  | Professional Communications   |
| 1 | LIB 160 (F.S.SS.)   | Information Literacy                              |   |

**Mathematical, Physical, and Life Sciences (25 credits)**

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|---|---------------------|--|
| 3 | MATH 145X (F.S.)    | Applied Trigonometry   |
| 3 | MATH 151 (F.S.SS.)  | Calculus for Business and Social Sciences  |
| 5 | PHYS 111 (F.S.)     | General Physics  |
| 3 | STAT 104 (F.S.SS.)  | Introduction to Statistics   |
| 4 | CHEM 163 (F.S.SS.)  | General Chemistry  |
| 1 | CHEM 163L (F.S.SS.) | Laboratory in General Chemistry  |
| 3 | BIOL 101 (F.S.SS.)  | Introductory Biology <b>or</b>   |
|   |                     | BIOL 211 (F.S.)  |
| 3 | Life Sciences       | (College of Agriculture and Life Sciences list)<br><a href="http://www.agstudent.iastate.edu/agriculturestudentservices/life_science.htm">http://www.agstudent.iastate.edu/agriculturestudentservices/life_science.htm</a> |

**Business, Humanities, Ethics and Social Sciences (18 credits)**

Certain courses in this section may be double counted to fulfill more than one academic requirement. Check with your advisor and this link for more details:

<http://www.abe.iastate.edu/undergraduate-students/advising-for-ast-i-tech/>

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|-----------------------------|----------------------------|--|
| 3                           | ACCT 284 (F.S.SS.)         | Financial Accounting   |
| 3                           | ECON 101 (F.S.SS.)         | Principles of Microeconomics   |
| 3                           | Ethics Course              | TSM 370 (S.) Occupational Safety   |
| <b>From approved lists:</b> |                            |  |
| 3                           | Humanities                 | (College of Agriculture and Life Science list)<br><a href="http://www.agstudent.iastate.edu/agriculturestudentservices/humanities.htm">www.agstudent.iastate.edu/agriculturestudentservices/humanities.htm</a> |
| 3                           | International Perspectives | (University list)<br><a href="http://www.registrar.iastate.edu/students/div-ip-guide/IntlPerspectives-current">http://www.registrar.iastate.edu/students/div-ip-guide/IntlPerspectives-current</a>             |
| 3                           | U.S. Diversity             | (University list)<br><a href="http://www.registrar.iastate.edu/students/div-ip-guide/usdiversity-courses">http://www.registrar.iastate.edu/students/div-ip-guide/usdiversity-courses</a>                       |

**Technology Core (30 credits)**

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|---|-------------------|---|
| 1 | TSM 110 (F.)      | Introduction to Technology                                  |
| 1 | TSM 111 (S.)      | Experiencing Technology                                     |
| 3 | TSM 115 (F.S.)    | Solving Technological Problems                              |
| 3 | TSM 116 (F.S.)    | Introduction to Design in Technology                        |
| 1 | TSM 201 (F.S.)    | Preparing for Workplace Seminar                             |
| 3 | TSM 210 (F.S.)    | Fundamentals of Technology                                  |
| 3 | TSM 270 (F.)      | Principles of Injury Prevention                             |
| 3 | TSM 310 (S.)      | Total Quality Improvement                                   |
| 4 | TSM 363 (F.)      | Electric Power and Electronics for Agriculture and Industry |
| R | TSM 397 (F.S.SS.) | Internship in Technology                                    |
| 2 | TSM 399 (F.S.SS.) | Work Experience in Technology                               |
| 1 | TSM 415 (F.S.)    | Technology Capstone I                                       |
| 5 | TSM 416 (F.S.)    | Technology Capstone II                                      |

**Option Core (24 credits)**

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|---|-----------------|--|
| 3 | TSM 216 (F. S.) | Advanced Technical Graphics, Interpretation, and CAD |
| 3 | TSM 240 (F.S.)  | Introduction to Manufacturing Processes              |
| 3 | TSM 337 (S.)    | Fluid Power Systems Technology                       |
| 3 | TSM 340 (F.S.)  | Advanced Automated Manufacturing Processes           |
| 3 | TSM 440 (F.)    | Cellular Lean Manufacturing Systems                  |
| 3 | TSM 443 (S.)    | Statics and Strength of Materials for Technology     |
| 3 | TSM 444 (F.)    | Facility Planning                                    |
| 3 | TSM 465 (S.)    | Automation Systems                                   |

**Electives (10 credits)**

Electives to strengthen degree