

**INDUSTRIAL TECHNOLOGY CURRICULUM****Occupational Safety Option- 120 credits required for graduation (2020-2021 Catalog)****Interpersonal and Public Communication Skills (13 credits)**

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

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

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|---|---------------------|---|
| 3 | MATH 145 (F.S.)     | Applied Trigonometry                      |
| 3 | MATH 151 (F.S.SS.)  | Calculus for Business and Social Sciences |
| 5 | PHYS 131 (F.S.SS.)  | General Physics                           |
| 3 | STAT 104 (F.S.SS.)  | Introduction to Statistics                |
| 4 | CHEM 163 (F.S.SS.)  | College Chemistry                         |
| 1 | CHEM 163L (F.S.SS.) | Laboratory in College Chemistry           |
| 3 | BIOL 101 (F.S.SS.)  | Introductory Biology                      |
| 3 | BIOL 255 (F.S.SS.)  | Fundamentals of Human Anatomy             |

**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 | TSM 370 (F.S.)     | Occupational Safety [Ethics requirement] |

**From approved lists:**

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|---|----------------------------|--|
| 3 | Humanities                 | (College of Agriculture and Life Science list)<br><a href="https://www.cals.iastate.edu/student-services/humanities">https://www.cals.iastate.edu/student-services/humanities</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 (F.S.)    | Experiencing Technology                                     |
| 3 | TSM 115 (F.S.)    | Solving Technology 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                                  |
| 1 | TSM 214 (F.S.)    | Managing Technology Projects                                |
| 3 | TSM 270 (F.S.)    | Principles of Injury Prevention and Safety                  |
| 3 | TSM 310 (F.S.)    | Total Quality Improvement                                   |
| 4 | TSM 363 (F.S.)    | 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                               |
| 2 | TSM 415 (F.S.)    | Applied Project Management in Technology                    |
| 3 | TSM 416 (F.S.)    | Technology Capstone   |

**Option Core (22 credits)**

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|---|----------------|--|
| 3 | TSM 240 (F.S.) | Introduction to Advanced Manufacturing and Metals Processing   |
| 2 | TSM 371 (S.)   | Occupational Safety Management                                 |
| 2 | TSM 372 (F.)   | Legal Aspects of Occupational Safety and Health                |
| 3 | TSM 376 (F.)   | Fire Protection and Prevention                                 |
| 3 | TSM 470 (S.)   | Industrial Hygiene: Physical, Chemical, and Biological Hazards |
| 1 | TSM 471 (S.)   | Safety Laboratory  |
| 3 | TSM 477 (F.)   | Risk Analysis and Management                                   |
| 2 | H S 105 (F.S.) | First Aid and Emergency Care                                   |
| 3 | PSYCH 250 (S.) | Psychology of the Workplace                                    |

**Electives (12 credits)**

Electives to strengthen degree