

INDUSTRIAL TECHNOLOGY CURRICULUM
Occupational Safety option
(2012-2013 Catalog)
129 credits required for graduation

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, or |
| | ENGL 309 (F.S.) | Report and Proposal Writing, or |
| | ENGL 314 (F.S.SS.) | Technical Communication, or |
| | AGEDS 327 (F.S.) | Advanced Communication for Agriculture and Life Sciences |
| 3 | SP CM 212 (F.S.SS.) | Fundamentals of Public Speaking, or |
| | AGEDS 311 (F.S.) | Presentation and Sales Strategies for Agricultural Audiences, or |
| | COMST 214 (F.S.) | Professional Communications |
| 1 | LIB 160 (F.S.SS.) | Information Literacy |

Mathematical, Physical, and Life Sciences (26-29 credits)

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| 3 | MATH 142 (F.S.SS.) | Trigonometry and Analytic Geometry and |
| 4 | MATH 160 (F.S.) | Survey of Calculus; or |
| 4 | MATH 165 (F.S.SS.) | Calculus I |
| 4 | PHYS 111 (F.S.SS.) | General Physics |
| 4 | PHYS 112 (F.S.SS.) | 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 or |
| | BIOL 211 (F.S.) | Principles of Biology I |
| 3 | BIOL 155 (F.S.) | Human Biology |

Humanities, Ethics and Social Sciences (15 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 | ECON 101 (F.S.SS) | Principles of Microeconomics |
| | From approved lists: | |
| 3 | Humanities | (College of Agriculture and Life Science list)
www.agstudent.iastate.edu/agriculturestudentservices/humanities.htm |
| 3 | Ethics Course | Required course TSM 370 will meet this requirement |
| 3 | International Perspectives | (University list)
www.iastate.edu/%7eregistrar/courses/ip-list.html |
| 3 | U.S. Diversity | (University list)
www.iastate.edu/~registrar/courses/diversity-list.html |

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 (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 |
| 3 | TSM 415 (F.S.) | Technology Capstone I |
| 3 | TSM 416 (F.S.) | Technology Capstone II |

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Business Core (6 credits)

3	ACCT 284 (F.S.SS.)	Financial Accounting
3	ECON 230 (F.S.)	Farm Business Management or
	ECON 334 (F.S.)	Entrepreneurship in Agriculture or
	ECON 336 (F.)	Agricultural Selling or
	ECON 355 (F.S.)	International Trade and Finance or
	MGMT 370 (F.)	Management and Organization or
	MGMT 414 (F.)	International Management or
	SCM 301	Supply Chain Management or
	SCM 437	Project Management or
	TSM 408 (odd F. even S.)	Interdisciplinary Problem Solving or
	TSM 409 (odd F. even SS.)	Interdisciplinary Systems Effectiveness

Option Core (33 credits)

3	TSM 240 (F.)	Introduction to Manufacturing Processes
3	TSM 370 (S.)	Occupational Safety
2	TSM 371 (S.)	Occupational Safety Management
2	TSM 372 (odd F.)	Legal Aspects of Occupational Safety and Health
3	TSM 376 (even F.)	Fire Protection and Prevention
3	TSM 470 (even S.)	Industrial Hygiene: Physical, Chemical, and Biological Hazards
1	TSM 471 (even S.)	Safety Laboratory
3	TSM 477 (even F.)	Risk Analysis and Management
3	I E 271 (S.)	Applied Ergonomics and Work Design
2	H S 105 (F.S.)	First Aid and Emergency Care
8	Technical Electives	See Departmental List

Departmental Technical Elective List for Occupational Safety Option (OS):

Aerospace Engineering

3	AER E 381	Introduction to Wind Energy
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Biology

3	BIOL 255	Fundamentals of Human Anatomy
1	BIOL 255L	Fundamentals of Human Anatomy Laboratory
3	BIOL 256	Fundamentals of Human Physiology
1	BIOL 256L	Fundamentals of Human Physiology Laboratory

Chemistry

3	CHEM 231	Elementary Organic Chemistry
1	CHEM 231L	Laboratory in Elementary Organic Chemistry

Entomology

3	ENT 283	Pesticide Application Certification
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Environmental Studies

2	ENV S 201	Introduction to Environmental Issues
3	ENV S 260	Soils and Environmental Quality
2	ENV S 324	Energy and the Environment
3	ENV S 383	Environmental Politics and Policies
3	ENV S 491	Environmental Law and planning

Health Studies

3	H S 110	Personal and Consumer Health
3	H S 215	Drug Education
2	H S 305	Instructor's First Aid and Cardio-pulmonary Resuscitation
3	H S 310	Community and Public Health
3	H S 350	Human Diseases
3	H S 380	Worksite Health Promotion

Management

3	MGMT 371	Organizational Behavior
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Mathematics

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|---|----------|-----------------------------------|
| 4 | MATH 166 | Calculus II |
| 3 | MATH 266 | Elementary Differential Equations |

Psychology

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|---|-----------|-----------------------------|
| 3 | PSYCH 250 | Psychology of the Workplace |
| 3 | PSYCH 450 | Industrial Psychology |

Technology

Any 300 level or higher TSM and AE course not required in the technology or option cores.