

Recommended Energy and Environmental Technology Course sequence

Undergraduate Catalog - 2016/2017

Total undergraduate credits 120

Freshman (Fall)

3	TECH 211 - Computer-Aided-Design
3	MATH 155 - Trigonometry
3	CHEM 110 - General Chemistry I
1	CHEM 111 - General Chemistry I Lab
3	ENGL103 - Composition I
3	General Education Requirement 1

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Sophomore (Fall)

3	TECH175 - Electricity and Electrical Fund.
1	TECH175A - Electricity and Electrical Fund. Lab
3	STAT 208 - Basis Statistics or STAT 301 - Elementary Statistics
3	TECH 265 - Basic Manufacturing Processes
3	TECH 231 - Safety Programs
3	General Education Requirement 3

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Junior (Fall)

3	TECH 391 - Industrial Quality Control
3	TECH 417 - Design for Energy Efficiency and Green Materials
3	TECH 411 - Env Sustainability Practices for Ind Ops
3	GEOG 359 - Intro to Geographic Info Systems
3	General Education Requirement 5

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Senior (Fall)

3	Technology Elective 1
3	TECH 419 - Energy Auditing
3	TECH 426 - Electric Systems Applications for Alternative Energy
3	ENVS 304 - Environmental Law, Policy, & Economics
3	General Elective 1

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Freshman (Spring)

3	COMS100 - Communications
3	ENGL203 - Composition II
4	MATH 229 - Calculus 1
3	PHYS 150 - Physics
1	PHYS 151 - Physics Lab
3	General Education Requirement 2

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Sophomore (Spring)

3	TECH 305 - Green Technologies
3	GEOG 256 - Maps and Mapping
3	TECH 295 or CSCI 215 or CSCI 240
3	TECH 245 - Pollution Prevention & Sustainable Production
3	General Education Requirement 4

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Junior (Spring)

3	TECH 406 - Facilities Management Technology
3	TECH 416 - Heating, Ventilating and Air Conditioning Technology
3	ENGL 308 - Tech Writing or MGMT 346 - Business Comms
3	TECH 443 - Engineering Economy
3	TECH 326 - Fluid Power Technology

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Senior (Spring)

3	Technology Elective 2
3	TECH 445 - Industrial Energy Utilization and Environmental Impacts
3	TECH 496 - Industrial Project Management
3	General Elective 2

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Technology Electives (Choose 2)

ENVS 301 - Environmental Sciences I: Physical Systems (3)
ENVS 302 - Environmental Sciences II: Biological Systems (3)
GEOG 455 - Land-Use Planning (3)
GEOG 459 - Geographic Information Systems (3)
TECH 311 - Advanced Computer-Aided Modeling (3)
TECH 409 - Internship (3)
TECH 415 - Applied Industrial Experimental Analysis (3)
TECH 425 - Programmable Electronics Controllers (3)
TECH 427 - Testing Methods, Procedures, and Selection of Sustainable Plastics (3)
TECH 436 - Design and Administration of Ind Safety Programs (3)
TECH 437 - Fundamentals of Industrial Hygiene (3)
TECH 479 - Special Topics in Engineering Technology (3)

2016/2017 NIU Undergraduate Bulletin
Energy and Environmental Technology
Credits Required for Graduation

Name _____
 ZID# _____
 Advisor _____

Note: Semester offering and prerequisites may change, the current bulletin and schedule should be consult

Legend - **p** - prerequisite **c**-corequisite **f** - fall semester **s** - spring semester

<input type="checkbox"/> Engl 103 RHETORIC AND COMPOSITION I - (f,s)	<input type="checkbox"/> Chem 110 (or Chem210T) GENERAL CHEMISTRY I - (f,s)	<input type="checkbox"/> Stat 208 (or Stat 301) STATISTICS - (f,s)
<input type="checkbox"/> Engl 203 p: Eng 103 RHETORIC AND COMPOSITION II - (f,s)	<input type="checkbox"/> Chem 111 (or Chem212) GENERAL CHEMISTRY I LAB (f,s)	<input type="checkbox"/> Math 155 p: Math110 or placement test TRIGONOMETRY - (f,s)
<input type="checkbox"/> Coms 100 FUNDAMENTALS OF ORAL COMM (f,s)	<input type="checkbox"/> Phys 150 or (Phys210 - p: M155) PHYSICS - (f,s)	<input type="checkbox"/> Math229 p: Math155 or placement test CALCULUS I - (f,s)
<input type="checkbox"/> English 308 or Mgmt 346 TECHNICAL WRITING OR BUSINESS COMMUNICATIONS (f,s)	<input type="checkbox"/> Phys 151 PHYSICS LAB-(f,s)	

Required Technology Courses

<input type="checkbox"/> Tech175 p: Math155, Phys 150A or Phys 210 ELECTRICITY AND ELECT FUND - (f,s)	<input type="checkbox"/> Tech 305 p: Math 155, Chem 110 GREEN TECHNOLOGIES(f, s)	<input type="checkbox"/> Tech 419 p: Math 155 ENERGY AUDITING
<input type="checkbox"/> Tech175a c: TECH175 ELECTRICITY AND ELECT FUND LAB (f,s)	<input type="checkbox"/> Tech 326 p: M 229; Phys 150A or 210 FLUID POWER TECHNOLOGY -(s)	<input type="checkbox"/> Tech 426 p: Math 155, Tech 175 or Phys 211 ELECTRIC SYS APPS FOR ALTERNATIVE ENERGY
<input type="checkbox"/> Tech 211 CAD/COMP-AIDED MODELING -(f,s)	<input type="checkbox"/> Tech 391 p: Math155, Stat208 INDUSTRIAL QUALITY CONTROL- (f, s)	<input type="checkbox"/> Tech 443 p: Math 155 ENGINEERING ECONOMY -(s)
<input type="checkbox"/> Tech 231 SAFETY PROGRAMS - (f)	<input type="checkbox"/> Tech 406 p: Math 155, Tech 211 FACILITIES MANAGEMENT TECHNOLOGY (s)	<input type="checkbox"/> Tech 445 p: Math 155, Chem 110 or 210 IND ENERGY UTILIZATION & ENV IMPACTS (f)
<input type="checkbox"/> Tech 245 POLLUTION PREVENTION, & SUSTAINABLE PROD(s)	<input type="checkbox"/> Tech 411 p: M155; Tech 245 or Tech 305 ENV SUSTAINABILITY PRACTICES FOR IND OPS -(f)	<input type="checkbox"/> Tech 496 p: (below) INDUSTRIAL PROJECT MANAGEMENT (f, s)
<input type="checkbox"/> Tech 265 p: Math 155 BASIC MANUFACTURING PROCESSES -(f, s)	<input type="checkbox"/> Tech 416 p: Math155, Phys 150/151 or 210 HEATING, VENTILATING, AND AIR CONDITIONING	p: Engl 308 or Mgmt 346; Senior Status; Tech 419; Tech 416
<input type="checkbox"/> Tech 295 p: M155,T265 or Csci 215 p: M110 MANUFACTURING COMPUTER APPS OR VISUAL BASIC or Csci 240 p: Math 110 or 155 or 229 COMPUTER PROGRAMMING IN C++ (f,s)	<input type="checkbox"/> Tech 417 p: Math 155, Phys 150/151 or 210 DESIGN FOR ENERGY EFFICIENCY & GREEN MATERIALS	

Requirements outside Technology

9 semester hours

<input type="checkbox"/> Envs 304 ENVIRONMENTAL LAW, POLICY, & ECONOMICS(f)
<input type="checkbox"/> Geog 256 MAPS AND MAPPING - (f, s)
<input type="checkbox"/> Geog 359 p: Geog 256 or Geog 352 INTRO TO GEOGRAPHIC INFO SYSTEMS- (f, s)
<input type="checkbox"/> Elective (3 hrs)
<input type="checkbox"/> Elective (3 hrs)

Technology Electives

Choose 2 courses (6 hrs required)

<input type="checkbox"/> Envs 301 ENVIRONMENTAL SCIENCES I:PHYSICAL SY:	<input type="checkbox"/> Tech 409 p: Junior Standing INTERNSHIP
<input type="checkbox"/> Envs 302 p: Envs 301 ENVIRONMENTAL SCIENCES II:BIOLOGICAL SY:	<input type="checkbox"/> Tech 415 p: Math 155, Stat 208 APPLIED INDUSTRIAL EXPERIMENTAL ANALYSIS (s)
<input type="checkbox"/> Geog 455 LAND-USE PLANNING	<input type="checkbox"/> Tech 425 p: M155, T175/A; T265; T295 or Csci 2 MICRO CONTROLLERS INTERFACING AND APPS -(f, s)
<input type="checkbox"/> Geog 459 p: Geog 359 GEOGRAPHIC INFORMATION SYSTEMS	<input type="checkbox"/> Tech 427 p: T265 or T344, Chem 110 TEST METH, PROCED, & SELECT OF SUSTAIN PLASTICS
<input type="checkbox"/> Tech 311 p: Tech 211 C or better COMPUTER-AIDED MODELING -(s)	<input type="checkbox"/> Tech 436 p: T231 or T245; T434 DESIGN & ADMIN OF IND SAFETY PROGRAMS -
	<input type="checkbox"/> Tech 479 p: see My NIU SPECIAL TOPICS IN EGR TECH

General Education Knowledge Domain Courses - See CEET website or online Undergraduate Catalog

Creativity & Critical Analysis - 2 courses

one course must be from VPA

<input type="checkbox"/> _____ (3)
<input type="checkbox"/> _____ (3)

Society & Culture - 2 courses

<input type="checkbox"/> _____ (3)
<input type="checkbox"/> _____ (3)

From any of the Knowledge Domain Areas

<input type="checkbox"/> _____ (3)
