Required Core Courses
TECH 175 - Electricity and Electronics Fundamentals
TECH 175A - Electricity and Electronics Fundamentals Laboratory
TECH 211 - Computer-aided Design
TECH 245 - Pollution, Pestilence, Prevention, and the Cost of Doing Business
TECH 262 - Machine Production Processes
TECH 265 - Basic Manufacturing Processes
TECH 295 - Manufacturing Computer Applications
or CSCI 215 - Visual Basic
TECH 305 - Green Technologies
or ENVS 305 - Green Technologies
TECH 391 - Industrial Quality Control
TECH 406 - Facilities Management Technology
TECH 416 - Heating, Ventilating and Air Conditioning Technology
TECH 417 - Design for Energy Efficiency and Green Materials
TECH 418 - Bio-based Fuels and Alternative Energy Applications
TECH 419 - Energy Auditing
TECH 432 - Disaster Preparedness
TECH 443 - Engineering Economy
TECH 484 - Energy Management
TECH 496 - Industrial Project Management

Technical Electives (Choose 3)
ENVS 301 - Environmental Science I: Physical Systems
ENVS 302 - Environmental Science II: Biological Systems
GEOG 459 - Geographic Information Systems
TECH 311 - Computer-aided Modeling
TECH 409 - Internship
TECH 425 - Programmable Electronic Controllers
TECH 437 - Fundamentals of Industrial Hygiene
TECH 440 - Monitoring and Evaluating Exposures to Hazardous Materials
TECH 441 - Hazard Control in Industrial Operations
TECH 479 - Special Topics in Engineering Technology

Requirements outside Department
CHEM 110 - Chemistry
AND CHEM 111 - Chemistry Laboratory
OR CHEM 210 - General Chemistry I
AND CHEM 212 - General Chemistry Laboratory I
ENGL 308 - Technical Writing
OR MGMT 346 - Business Communication
ENVS 304 - Environmental Law, Policy, and Economics
GEOG 256 - Maps and Mapping
GEOG 359 - Introduction to Geographic Information Systems
MATH 155 - Trigonometry and Elementary Functions
MATH 229 - Calculus I
PHYS 150A - Physics
OR PHYS 210 - General Physics I
STAT 208 - Basic Statistics
OR STAT 301 - Elementary Statistics

Minor in Energy Systems Technology
Students majoring in Technology or other majors on the NIU campus may also complete the Department of Energy Technology minor. This minor gives students a background in energy related systems and knowledge of real-world energy applications.
The Energy and Environmental Systems Technology (EEST) program, a dynamic, applications-oriented curriculum, prepares students for employment or continued education in the growing fields of energy conservation and renewable energy production. EEST students learn the fundamentals of energy-based manufacturing techniques such as energy-efficient design and green material usage. These students also learn new and emerging energy areas such as bio-based fuels, alternative energy applications and energy auditing. The EEST program provides students with a wide range of professional skills in the areas of energy and environmental systems, thus preparing them for a variety of career possibilities after graduation.

The EEST faculty teach courses that combine the best “real-world” experiences with the “hands-on” applications and theoretical base needed to develop a deep understanding of many of the areas within the energy profession. Graduates of this program have the ability to conduct energy audits and work with the various fuel technologies (solar, bio-based, co-generation, etc.) required to maintain energy supplies long into the future.

NIU Institute for the Study of the Environment, Sustainability, and Energy (ESE Institute)
Interdisciplinary opportunities in energy and environmental research and education exist with our partners in the ESE Institute (www.niu.edu/ese).

An Open Invitation
If energy and environmental systems technology at Northern Illinois University sounds interesting, and you would like some additional information or to see our facilities, please contact us at (815) 753-1349. Or check us out on the Web: www.niu.edu/tech/

After Graduation and Beyond
An indicator of a technology program’s success is its ability to place students in successful career paths upon graduation. At NIU, most technology students receive employment offers prior to graduation, working for companies in the Chicago area with high starting salaries. In addition, many of our graduates choose to obtain a master’s degree either directly after graduation or while working.

What types of jobs can I expect to apply for after graduation?
The EEST program is designed to incorporate a wide range of areas to provide maximum flexibility so students are never restricted to a single industry.

- Electrical technician
- Energy auditor
- Generator maintenance technician
- Instrumentation electrician
- Environmental control electrician
- Energy management electrician
- Industrial maintenance electrician
- Green product designer
- Process planner
- Wind farm technician
- Photovoltaic and wind system installer and troubleshooter

NIU graduates in the technology fields are employed by such companies as
Motorola • Omron • Caterpillar • Prime Automation
• Ingersoll • Sundstrand • Underwriters Labs
• Chrysler • AON • Siemens • General Motors
• Hewlett Packard • Greenfield Industries • Conner-Winfield • Woodward Governor • IBM • Excelon