

Northwestern Engineering

MS Degree in Energy and Sustainability

Jump-start your career with a Master of Science at [Northwestern University](#) with an emphasis in energy and sustainability. Intended for students with a Bachelors of Science in engineering or a related field, this program is for individuals with a desire to enter the increasingly critical and dynamic fields of energy and sustainability. Dedicated, intensive, and hands-on courses provide thorough training and preparation for exciting, rewarding jobs.



The curriculum is highly interdisciplinary and includes deep, technical courses in energy and technology topics, as well as courses critical to understanding the law, policy, and economics of energy.

PROGRAM FEATURES

- ❖ Rigorous MS in energy science, technology, & policy
- ❖ Graduate-level courses in policy, economics, and legal issues surrounding the energy sector
- ❖ Broad-based, flexible, interdisciplinary program
- ❖ Fast-paced, course-only MS option in as short as 9 months, or an option to take courses and do a thesis
- ❖ Projects (1-3 quarters) working closely with faculty on energy application topics
- ❖ Northwestern's Evanston campus is located next to Lake Michigan and is just minutes away from Chicago's cultural hubs



Requirements for Degree

The degree requires 12 total units, including between 9 and 11 course units and the balance in project units. ISEN410 (Topics in Contemporary Energy and Climate Change) and at least one course from each of the topical areas listed below are required. 7 of the units, including projects, must be ME courses or approved courses related to energy and sustainability, and 5 units must be 400-level. Below is a sample list of available courses as of the 2015-2016 academic year. Other courses may be available in future years.

ENERGY

ISEN410 (Topics in Contemporary Energy and Climate Change)*
ME377 (Heat Transfer)
ME395 (Energy Systems)
ME395 (Thermal Energy Systems Design)
MatSci395 (Electronic & Thermal Properties of Materials)

CORE PRINCIPLES OF ENERGY SYSTEM

ME370 (Thermodynamics II)
ME414-1 (Mechanics of Composite Materials I)
ME414-2 (Mechanics of Composite Materials II)
ME495 (Industrial Energy Utilization and Management)
MatSci381 (Energy Materials)
MatSci382 (Electrochemical Energy Materials and Devices)

ENVIRONMENT

ISEN410 (Topics in Contemporary Energy and Climate Change)*
CEE314 (Organic Geochemistry)
CEE361-2 (Public & Environmental Health)
CEE363 (Env. Eng. Applications: Air/Land)
CEE364 (Env. Eng. Applications: Water)
CEE368 (Sustainability: Issues and Action, Near and Far)

ECONOMICS & POLICY

ISEN430 (NUvention: Energy)
CEE303 (Environmental Law and Policy)
CEE395 (Environmental Justice)
ChBE365 (Sustainability, Technology, & Society)
PROJMGT443 (Sustainability Strategies)
PROJMGT445 (Sustainability Policy)
PROJMGT448 (Metrics of Sustainability)
PROJMGT449 (Economics of Sustainability)

*ISEN410 may count towards either the Environment or Energy area, but not both

**ME499 (Projects in Energy Systems and Sustainability) may count as any of the areas, depending on the subject matter of the project

CONTACT

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