



Northeastern University
University Career Services

WHAT CAN I DO WITH A DEGREE IN
**Mechanical and
Industrial Engineering**

www.northeastern.edu/careerservices

OVERVIEW

Industrial Engineers determine the most effective ways for an organization to use the basic factors of production: people, machines, materials, information, and energy to make a product or provide a service. They are the bridge between management goals and operational performance. They are concerned with increasing productivity through the management of people, methods of business organization, and technology. Although most industrial engineers work in manufacturing industries, they also work in consulting services, healthcare, and communications.

Mechanical Engineers research, develop, design, manufacture, and test tools, engines, machines, and other mechanical devices. They work on power-producing machines such as refrigeration and air-conditioning equipment, machine tools, material handling systems, elevators and escalators, industrial production equipment, and robots used in manufacturing. The field of nanotechnology, which involves the creation of high-performance materials and components by integrating atoms and molecules, is introducing entirely new principles to the design process

Concentrations: Biomedical Engineering and Biomechanical Engineering
Department website: <http://www.coe.neu.edu/Depts/MIE/index.php>

SAMPLE JOB TITLES

- | | |
|-----------------------------|-------------------------------|
| Chassis Systems Engineer | Operations Engineer |
| Commissioning Engineer | Plant Engineer |
| Design Engineer | Process Engineer |
| Design Maintenance Engineer | Process Engineer |
| Engineer | Product Engineer |
| Engineering Manager | Product Safety Engineer |
| Equipment Engineer | Production Engineer |
| Industrial Engineer | Solar Energy Systems Designer |
| Industrial Health Engineer | Stress Analyst |
| Manufacturing Specialist | Supply Chain Engineer |
| Mechanical Design Engineer | Systems Engineer |
| Mechanical Engineer | Tool Engineer |

Positions that require additional education or training are indicated by a ().*

Job qualifications are based not only on degree program, but on skills and experience. Students should seek out as many experiential opportunities in their fields of interest as possible, including Co-op and internships.

TYPES OF EMPLOYERS

Aerospace
Airlines
Construction
Consulting (Metals, Metallurgy)
Consulting (Military, Textiles)
Electronics
Federal Government
Hospitals and Health Care

Machine Tools
Manufacturing Industries
Navigational, Measuring, Electro-medical
Nuclear
Plant Operations
Power station
Public Utilities
Transportation (all)

INTERNSHIPS

These sample titles can be used to research internship opportunities in the field.

Biomechanical Constructs
Sub-strate Free Constructs
Repair and Regeneration
Geotextile Tubes for the Sustainable Watering

National Science Foundation

http://www.nsf.gov/crssprgm/reu/list_result.cfm?unitid=10006

To search for internship opportunities, login to [Husky Career Link](#), Career Services' online job and internship bank for opportunities with employers seeking to hire NU students.

CO-OPS

For more information, please visit the department's website.

Students enrolled in the *College of Professional Studies* may click [here](#) for co-op and internship information.

CAREER EXPLORATION & JOB POSTINGS

The following resources include various websites and campus resources that will aid you in exploring this career field and industry.

CAREER & JOB WEBSITES

[MassCIS – Massachusetts Information System](#)

[Bureau of Labor Statistics – Occupational Outlook Handbook](#)

[Vocational Biographies](#) (username: NE Univ; password: RAZDE)

[O*NET OnLine](#)

[Mechanical Engineer](#)

[National Engineering Resources](#)

[Engineering Jobs](#)

[Industrial Engineering](#)

[Job Central](#)
[Simply Hired](#)

CAMPUS ORGANIZATIONS & ACTIVITIES

[American Society of Mechanical Engineers – ASME](#)

[Engineers Without Borders- EWB](#)

[Institute of Industrial Engineers- IIE](#)

[Mechanical Contracting Association of America- MCAA](#)

[Society of Hispanic Professional Engineers- SHPE](#)

[Society of Women Engineers- SWE](#)

**For additional student organizations click [here](#).*

**For additional student activities click [here](#).*

PROFESSIONAL ASSOCIATIONS

Find valuable industry information, job sites, and professionals in the field you may contact for informational interview requests and networking opportunities.

[Society of Mechanical Engineers](#)

[Society of Manufacturing Engineers](#)

[American Society of Mechanical Engineers](#)

[Society of Automotive Engineers](#)

[National Society of Professional Engineers](#)

[Institute of Industrial Engineers](#)

SOCIAL MEDIA

Sample LinkedIn.com Groups providing resources such as industry trends, company information, job listings, and networking opportunities within the field:

[American Society of Mechanical Engineers](#)

[Automation and Control Engineering](#)

[Institute of Industrial Engineers](#)