What can I do with a major in...

Environmental engineering

ACTIVITIES ENVIRONMENTAL ENGINEERING MAJORS DO:
Environmental engineers design and apply technologies to resolve issues of environmental concern. They design systems that produce safe drinking water, treat wastewater so that it can be reused and/or safely returned to the environment, accommodate municipal and hazardous waste, mitigate air pollution, and protect public health. They use engineering and ecological principles to protect and enhance the natural environment, including erosion and sediment control, pollution abatement, watershed management, impaired-waters diagnostics, and wetland and ecological restoration. Environmental engineers pursue a wide range of careers in the private sector, government, and academia.

INDUSTRIES ENVIRONMENTAL ENGINEERING MAJORS WORK IN (SAMPLE LISTING):
Hydrology and hydraulic engineering
State and local government
Urban planning and development
Solid/hazardous waste management
Sustainable development
Water quality/treatment
Transportation
Pollution control
Chemical companies
Consulting
Public works
Construction/building
Public health agencies
Environmental law
Industrial hygiene
Research firms/labs
Community development
Mining and manufacturing

EMPLOYERS WHO HIRE ENVIRONMENTAL ENGINEERING MAJORS (SAMPLE LISTING):
Black & Veatch
Howard R. Green
Geosyntec
United Water Works Company
St. Paul Regional Water Services
Corollo Engineers
U.S. Geological Survey
URS Corporation
Barr Engineering
SEH Engineering
Brown and Caldwell
Koch Industries
SRF Consulting
MN Dept. of Transportation
Metropolitan Counsel
Environmental Protection Agency
Arcadis
AECOM
AMES
3M
Environmental Protection Agency
CH2M Hill
TKDA
Xcel Energy

TYPES OF POSITIONS FOR ENVIRONMENTAL ENGINEERING MAJORS (SAMPLE LISTING):
• Air quality engineer: Inspects, analyzes, and quantifies levels of pollution and their environmental impact. Designs and assesses the effectiveness of environmental regulatory programs to manage health risks to the environment.
• Attorney: Uses knowledge of the law to advocate on behalf of a client. Engineering students are well-prepared to attend law school; environmental engineering students are particularly well-positioned for careers in environmental law.
• Environmental engineering consultant: Offers expert advice to local, state, and federal government agencies and private sector clients who need to adopt environmentally sound practices or clean up contaminated sites.
• Environmental analyst: Collects, studies, and analyzes data to propose actions and policies to create less harmful and cleaner interactions with the environment.
• Environmental engineer: Designs and supervises systems that prevent and control pollution.
• Environmental health research scientist: Conducts research for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect the environment or the health of the population.
• Energy engineer: Designs and evaluates projects and programs to reduce energy costs or improve energy efficiency during the design, building, or remodeling stages of construction.
• Water resource engineer: Determines areas prone to flooding, restores ecological function to streams and rivers, develops methods to handle and treat urban runoff, redirects water by constructing hydraulic structures to benefit residents and businesses in a community.
• Hydrologist: Studies the distribution, movement, and quality of underground and surface water. Hydrologists are involved in the design of irrigation systems, waste treatment plants, hydroelectric power plants, flood warning systems, and stream restoration.
TYPES OF POSITIONS FOR ENVIRONMENTAL ENGINEERING MAJORS (Continued):

- **Physician:** Skilled health-care professional trained to practice medicine. Environmental engineering is particularly important for the protection of public health. The environmental engineering major is well-suited to prepare students for taking the medical college admissions test (MCAT).

- **Public health engineer:** Identifies, evaluates, and rectifies environmental problems that have an impact on public health.

- **Stormwater engineer:** Designs flow-through stormwater management infrastructure to remove both general and site-specific pollutants from stormwater runoff.

- **Water resource engineer:** Redirects water to benefit residents and businesses in a community. (Example: constructing canals and building dams.)

- **Wastewater engineer:** Improves both the environment and economy by helping communities and businesses dispose of waste without polluting natural water sources.

- **Professor:** Develops and teaches environmental engineering curriculum.

**Some positions may require an advanced degree.**

USEFUL WEBSITES FOR ENVIRONMENTAL ENGINEERING MAJORS:

- Department of Civil, Environmental, and Geo Engineering: [cege.umn.edu](http://cege.umn.edu)
- Federal Government Jobs: [usajobs.gov](http://usajobs.gov)
- Environmental Career Center: [environmentalcareer.com](http://environmentalcareer.com)
- Environmental Career Opportunities: [ecojobs.com](http://ecojobs.com)

USEFUL WEBSITES FOR ENGINEERING MAJORS:

- Engineer.net: [engineer.net](http://engineer.net)
- Engineer Jobs: [engineerjobs.com](http://engineerjobs.com)
- Engineering Central: [engcen.com](http://engcen.com)
- Graduating Engineer: [graduatingengineer.com](http://graduatingengineer.com)
- ThinkJobs.com: [thinkjobs.com](http://thinkjobs.com)
- Engineering.com: [engineering.com](http://engineering.com)
- Engineer Info: [engineer.info](http://engineer.info)

PROFESSIONAL ORGANIZATIONS:

- Air and Waste Management Association: [awma.org](http://awma.org)
- American Public Works Association: [apwa.net](http://apwa.net)
- American Academy of Environmental Engineers and Scientists: [aaees.org](http://aaees.org)
- Institute of Professional Environmental Practice: [ipep.org](http://ipep.org)
- Water Environment Federation: [wef.org](http://wef.org)
- American Solar Energy Society: [ases.org](http://ases.org)
- American Council of Engineering Companies: [acec.org](http://acec.org)
- American Council of Engineering Companies-MN chapter: [acecmn.org](http://acecmn.org)
- American Water Works Association: [awwa.org](http://awwa.org)
- American Society of Civil Engineers: [asce.org](http://asce.org)
- American Institute of Chemical Engineers: [aiche.org](http://aiche.org)
- American Chemical Society: [acs.org](http://acs.org) or [acsenvr.com](http://acsenvr.com)
- American Geophysical Union: [agu.org](http://agu.org)
- National Society of ProfessionalEngineers: [nspe.org](http://nspe.org)
- Minnesota Society of Professional Engineers: [mnspe.org](http://mnspe.org)
- Society of Women Engineers: [swe.org](http://swe.org)

*Additional job/internship search websites and resources can be found at cse.umn.edu/career.*

Information on these pages were compiled from the Occupational Outlook Handbook, the Encyclopedia of Careers and Vocational Guidance, Careers in Engineering, SloanCareerCornerstone.org, University of Minnesota departmental websites, and student-reported data.