DESCRIPTION
Civil and environmental engineers’ intellectual focuses are discovery and innovation in order to better understand the world, as well as to invent and lead with creative design to sustain both life and society in ever-changing environments. They focus on five strategic areas: ecological systems, resources, structure and design, urban systems, and global systems. Civil engineers design the structures we live and work in, the roads and bridges we drive on, the clean water we drink, and wastewater treatment systems we use. Environmental engineers use engineering and ecological principles to protect and enhance the natural environment.

SKILLS
- Familiarity with engineering fundamentals
- Computer Aided Design / Drafting (CAD) software
- Familiarity with health and safety regulations
- Strong communication and time management skills

POSSIBLE FUTURE POSITIONS
- **Civil engineer**: Plan, design, and oversee construction and maintenance of building structures, and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, and water and sewage systems.
- **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.
- **Structural engineer**: Analyzes and designs structures such as stadiums, arenas, office buildings, and bridges to ensure they safely and satisfactorily perform their purpose.

CAREER INDUSTRY EXAMPLES
- Chemicals and Materials
- Computer Software
- Consulting
- Energy and Utilities
- Government
- Aerospace and Defense
- Construction

SAMPLE EMPLOYERS
- Accenture
- Amyris
- Bates White, LLC
- PA Consulting
- The Brattle Group
- Booz Allen & Hamilton
- Chevron
- Google
- Raytheon
- Ramboll-Environ
CIVIL AND ENVIRONMENTAL ENGINEERING
COURSE 1

INSIDE COURSE 1
1-ENG Civil and Environmental Engineering Undergraduates: 51
Includes tracks in Environment, Mechanics and Materials, and Systems Engineering

DEPARTMENT FAVORITES
1.057 Heritage Science and Technology
Accompany Professor Admir Masic for a three-week fieldwork experience in Italy over the summer. Students then analyze the data that they gathered on the trip through the fall subject, 1.057 where students will formulate projects based on their areas of interest

1.101 Introduction to Civil and Environmental Engineering Design I
Introduces the creative design process in the context of civil and environmental engineering. Fosters active learning through open-ended, student-driven projects in which teams apply the design process to a design/planning problem. In labs, students design and build a working model or an experiment that addresses a specific engineering aspect of their project.

6.012 Environmental Fluid Transport Processes and Hydrology Laboratory
Fundamentals of mass transport and flow measurements in the context of environmental systems. Topics include measurement uncertainty, propagation of error, diffusion, dispersion, air-water exchange, dissolution, gravity currents, particle transport, and transport in porous media.

COURSE 1-FRIENDLY LABS
Parsons Laboratory for Environmental Science and Engineering
Pierce Laboratory for Infrastructure Science and Engineering

GET INVOLVED WITH COURSE 1
The Civil and Environmental Engineering Students Association
MIT Energy Club
Food and Agriculture Club
Fossil Free MIT
The MIT Waste Alliance

Sources: MIT Global Education & Career Development, Graduating Student Survey 2015 - 2017. Collegeboard.org. University of Minnesota Center for Academic Planning. UPOP is here to help you! Come talk to us in 1-123 or email us at upopstudentprogram@mit.edu