

Civil, Environmental & Infrastructure Engineering

<http://www.civil.gmu.edu>

Name and description of the field.

The innovative Civil & Infrastructure Engineering (CIE) degree at Mason is ABET accredited and resides at the crossroads of civil engineering, information technology (IT), and urban planning. The extended scope of the CIE degree offers Mason graduates the opportunity to apply engineering solutions in an arena which will directly impact the public's well being, including: transportation, water resources, environment, telecommunications, energy and structures. The unique CIE program focuses on how these interrelated systems are conceived, developed, designed, built, maintained and renewed in a complex urban environment, such as the Washington, DC metropolitan area where Mason is located.

In our classes, we provide students with a variety of computer-based analytical and design tools widely used in the engineering industry. The philosophical thread that runs through the entire degree program is that civil, environmental and infrastructure engineering is IT-driven. It is fun, challenging, demands cooperation and skill, and is of vital importance to society. Furthermore, our approach is based on a close relationship with the engineering industry to ensure that sound professional practice is used in the classroom. This relationship ensures that our courses offer relevant engineering experiences and exposure to industry leaders.

What special skills or abilities are needed to succeed in this major?

- Strong motivation to be an engineer.
- Willingness to work hard.
- While a strong math background is preferable, many students with strong motivation succeed with only average math skills.
- Interest in the exciting and growing field of infrastructure, environment, and civil transportation engineering.

A B.S. in Civil and Infrastructure Engineering is offered at the undergraduate level and an M.S. is offered at the graduate level.

Is it possible to minor in Civil & Infrastructure Engineering? No minor is available.

What are recent graduates doing?

The graduating Civil and Infrastructure Engineer is expected to be competent in applying both the art and science of engineering, adept at understanding and using the tools available, and capable of solving problems from a variety of perspectives finding novel solutions. He or she should also be able to assess objectives and concerns, identify potential solutions, analyze options, and identify and execute a solution. CIE graduates work for organizations including:

- Land Development & Construction Firms
- Departments of Transportation and Public Works
- Consulting Engineering Firms (small & local to huge & international)
- Public Utilities(i.e. energy, water)
- Local, State and Federal Governments
- Information Technology Firms

Specific job titles include:

- Transportation Engineer
- Structural Engineer
- Civil Engineer
- Environmental Engineer
- Project Engineer
- Master Planner

EXPLORING MAJORS

Organizations that have hired recent GMU graduates include:

- Arlington County
- BC Consultants
- Black & Veatch
- Virginia Department of Transportation (VDOT)
- Burgess & Niple
- Dewberry
- Fairfax County
- Geraghty & Miller
- Greenhorne & O'Mara
- Intergraph
- Mitretek
- SAIC
- US Army Corp of Engineers
- Martins Construction Corp.
- Facility Engineering Associates, PC
- Clark Concrete, LLC

Printed Resources – <http://careers.gmu.edu/careerlibrary/wheretostart/engr.pdf>

Online Resources – <http://careers.gmu.edu/onlineresources/engr.htm>

Whom should students contact for further information?

Dr. Michael Bronzini
Civil, Environmental &
Infrastructure Engineering
1300 Engineering Building
703-993-1504

Academic Advising Center
304 SUB I
703-993-2470

Charlotte Strauss
University Career Services
348 SUB I
703-993-2370