

Careers

Civil engineers design and supervise the construction of roads, buildings, airports, tunnels, dams, bridges, and water supply and sewage systems.

The major specialties within civil engineering are structural, water resources, environmental, construction, transportation, and geotechnical engineering.

Civil engineering technicians help civil engineers plan and build highways, buildings, bridges, dams, wastewater treatment systems, and perform related surveys and studies. Some may prepare drawings or perform land-surveying duties. Others may set up and monitor instruments used to study traffic conditions.

Salary

According to a 2005 salary survey by the National Association of Colleges and Employers, bachelor's degree candidates in civil engineering received starting offers averaging \$43,679 a year. In 2004, median annual earnings of civil engineers were \$64,230, while civil engineering technicians salaries ranged from \$29,980 to \$57,550 (U.S. Department of Labor).

Job Outlook

General growth is expected to increase as fast as average through 2014. Civil engineers will be needed to design and construct transportation systems, water supply and pollution control systems, and large buildings to accommodate population growth. They will also be needed to repair or replace roadways, bridges, and other public structures.

Education & Training Options

Montgomery College offers a civil engineering track in its engineering science A.S. curriculum. (See reverse for civil engineering curriculum.)

■ Faculty

Four full-time faculty serve as engineering advisers. All hold their advanced degrees in either physics or engineering. All have extensive personal experience with direct application of their specialties in research and industry. Most retain some level of involvement in these areas even today. They share the classroom duties with a group of part-time faculty, including several veterans of many years at the College, who add their own special expertise on the world beyond academia.

■ Degree

This curriculum is designed to provide the first two years of a four-year program leading to the award of a B.S. in engineering. Specific requirements in colleges vary. Students planning to transfer in civil engineering should consult an engineering adviser:

- University of Maryland College Park—follow the curriculum as published in the *Montgomery College Catalog*.
- Johns Hopkins University—follow the general engineering track.

Contact @ MC

Rockville Campus240-567-5230
www.montgomerycollege.edu

Civil Engineering Curricula

Degrees, Certificates, and Letters of Recognition

Montgomery College is authorized by the Maryland Higher Education Commission (MHEC) to offer four degrees (associate of arts, associate of science, associate of applied science, and associate of arts in teaching) and certificates. In addition, the College recognizes students who satisfactorily complete certain course sequences with letters of recognition.

Some curricula are offered at all campuses, whereas others are limited to one or two. When a curriculum is offered at a specific campus, it is indicated by G for Germantown, R for Rockville, or TP for Takoma Park/Silver Spring.

Admission to Montgomery College is open to all.

Math, English, and reading assessment tests are required prior to registering. (Some students may be exempt from assessment. Consult the *Montgomery College Catalog* for criteria.) Financial aid and scholarships are available to qualified candidates.

Take the next step.

Complete an Application for Admission form (available online @ www.montgomerycollege.edu/admissions/mcadmin.htm) or call 240-567-5000 for information.

Civil Engineering: 407 Engineering Science A.S.

First Semester

CH 135	General Chemistry for Engineers†	4
EN 102	Techniques of Reading and Writing II	3
ES 100	Introduction to Engineering Design	3
	Health foundation	1
MA 181	Calculus I	4

Second Semester

MA 182	Calculus II	4
PH 161	General Physics I	3
ES 102	Statics	3
	Arts distribution	3
	Humanities distribution	3

Third Semester

MA 280	Multivariable Calculus	4
PH 262	General Physics II	4
ES 220	Mechanics of Materials	3
	Behavioral and social sciences distribution	3

Fourth Semester

MA 282	Differential Equations	3
PH 263	General Physics III	4
ES 240	Scientific and Engineering Computation	3
ES 221	Dynamics	3
	Arts distribution	3

Total credit hours 61

* ENCE 100, 200, 215, and 305 should be taken at University of Maryland College Park in order to achieve full junior standing upon transfer.

† Students may substitute CH 102.