

## Careers

Computer engineering, sometimes mixed with systems engineering, is one of the newest disciplinary specializations found in engineering schools. It deals with all aspects, both hardware and software, of the computer industry.

Computer hardware engineers research, design, develop, and test computer hardware and supervise its manufacture and installation.

Computer software engineers create, design, and develop computer applications software and systems that control computers, based on users' needs.

## Salary

Median annual earnings of computer hardware engineers were \$81,150 in 2004.

According to the National Association of Colleges and Employers, starting salaries in 2005 for bachelor's degree candidates in computer engineering averaged \$52,464 a year. According to Robert Half International, starting salaries for software engineers in software development ranged from \$63,250 to \$92,750 the same year.

## Job Outlook

Computer software engineers are projected to be the fastest growing occupation to 2014, driven by competition among businesses, and increasingly sophisticated technological innovations.

## Education & Training Options

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

### ■ 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. 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 computer 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.

### ■ Faculty

Four full-time faculty serve as engineering advisers. All hold their advanced degrees in either physics or engineering and 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, who add their own special expertise on the world beyond academia.

## Contact @ MC

Rockville Campus . . . . .240-567-5230  
[www.montgomerycollege.edu/Departments/phengrv](http://www.montgomerycollege.edu/Departments/phengrv)

# Computer Engineering Curriculum

## 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](http://www.montgomerycollege.edu/admissions/mcadmin.htm)) or call 240-567-5000 for information.

## Computer Engineering: 409 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
MA 181	Calculus I	4

### Second Semester

CS 103	Computer Science I	4
	Health foundation	1
MA 182	Calculus II	4
PH 161	General Physics I	3
	Behavioral and social sciences distribution	3

### Third Semester

CS 256	Introduction to Discrete Structures	4
EE 244	Digital Logic Design	3
MA 282	Differential Equations	3
PH 262	General Physics II	4
	Humanities distribution	3

### Fourth Semester

CS 204	Computer Science II	4
EE 204	Basic Circuit Analysis	3
EE 206	Fundamental and Digital Circuit Laboratory	2
ES 240	Scientific and Engineering Computation	3
	Arts distribution	3
	Behavioral and social sciences distribution	3

**Total credit hours 64**

\* Students may substitute CH 102.