

## Careers

Chemical engineers work to improve the efficiency of chemical processes. They also design equipment for the chemical industry. Chemical engineering technicians usually are employed in industries producing pharmaceuticals, chemicals, and petroleum products, among others. They work in laboratories and processing plants, help develop new chemical products and processes, test processing equipment and instrumentation, gather data, and monitor quality. Many chemical engineers ultimately find career opportunities in industry, in an academic setting, or in public and private institutes and agencies.

## Salary

According to a 2005 salary survey by the National Association of Colleges and Employers, bachelor's degree candidates in chemical engineering received starting offers averaging \$53,813 a year.

Median annual earnings of chemical engineers were \$76,700 in 2004.

## Job Outlook

Overall employment in the chemical manufacturing industry is expected to grow about as fast as the average for all occupations through 2014. Chemical companies will continue to research and develop new chemicals and more efficient processes in manufacturing.

## Education & Training Options

Montgomery College offers a chemical engineering track in its engineering science A.S. curriculum. (*See reverse for chemical 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 chemical 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 Campus . . . . .240-567-5230  
[www.montgomerycollege.edu/Departments/phengrv](http://www.montgomerycollege.edu/Departments/phengrv)

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

## Chemical Engineering: 406 Engineering Science A.S.

### First Semester

CH 102	Principles of Chemistry II	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

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

### Third Semester

CH 203	Organic Chemistry I	5
MA 280	Multivariable Calculus	4
PH 262	General Physics II	4
	Behavioral and social sciences distribution	3

### Fourth Semester

CH 204	Organic Chemistry II	5
MA 282	Differential Equations	3
PH 263	General Physics III	4
	Arts distribution	3
	Behavioral and social sciences distribution	3

**Total credit hours 62**