

## Pre-Engineering Requirements

### Bioengineering

### Chemical and Petroleum Engineering

### Civil and Environmental Engineering

### Computer Engineering

### Electrical Engineering

### Engineering Physics

### Industrial Engineering

### Mechanical Engineering and Materials Science

You can complete nearly half of the requirements for a degree in engineering in the College of General Studies (CGS) and then apply to the School of Engineering to complete the degree. Students must have a strong and demonstrated aptitude in mathematics and science. A 2.8 quality point average and the courses required prior to transfer are needed for transfer to any department you select. Please note that completing the requirements does not guarantee admission to the School of Engineering.

### Pre-engineering required courses

If you did not recently have high school algebra, trigonometry, physics, or chemistry, you may need to review with certain preparation courses before taking the required pre-engineering courses. Preparation courses do not count toward the major or the engineering degree. An academic advisor will assist you in choosing the appropriate sequence of required courses and help you to determine which preparation courses you may need.

### Mathematics

#### Preparation courses

see course description for proper placement

MATH 0031	Algebra	2 cr.
MATH 0032	Trigonometry and Functions	2 cr.
MATH 0200	Preparation for Scientific Calculus	3 cr.

#### Courses required prior to transfer:

MATH 0220	Analytic Geometry and Calculus 1	4 cr.
MATH 0230	Analytic Geometry and Calculus 2	4 cr.

#### Required courses

may be taken before or after transfer

MATH 0240	Analytic Geometry and Calculus 3 (not required for computer engineering)	4 cr.
MATH 0280	Intro to Matrices and Linear Algebra	3 cr.
MATH 0290	Differential Equations	3 cr.

### Physics

#### Preparation course:

PHYS 0110	Introduction to Physics 1	3 cr.
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#### Courses required prior to transfer:

PHYS 0174	Basic Physics for Science and Engineering 1	4 cr.
PHYS 0175	Basic Physics for Science and Engineering 2	4 cr.

### Chemistry

#### Preparation course:

CHEM 0100	Preparation for General Chemistry	3 cr.
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#### Courses required prior to transfer:

CHEM 0110	General Chemistry 1	4 cr.
CHEM 0120	General Chemistry 2	4 cr.

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## Engineering

### Courses required prior to transfer:

ENGR 0011	Introduction to Engineering Analysis	3 cr.
ENGR 0012	Introduction to Engineering Computing	3 cr.

Permission for Engineering 0011 is available for spring term only.

Engineering 0012 is a sequence course to Engineering 0011.

Computer Science 0401 (4 cr.) will be accepted as equivalent to Engineering 0012 with permission from the freshman program. See your academic advisor for details.

### Humanities and Social Science Electives

All undergraduate engineering programs require approximately six humanities/social sciences electives (18 credits). During your course of study, you may take these electives through CGS or the School of Engineering. You may obtain a list of approved humanities and social science courses from an academic advisor.

### Notes:

The School of Engineering does not accept College Level Examination Program (CLEP) credits.

University External Studies Program courses are not accepted toward the School of Engineering degree.

Students applying for transfer to bioengineering will need to see the bioengineering undergraduate coordinator in the School of Engineering.

Requirements are subject to change. Check with an academic advisor before registering.

The University of Pittsburgh is an affirmative action, equal opportunity institution.

## College of General Studies

The College of General Studies (CGS) provides adult and continuing education programs that are designed to address changing employer and student needs. The high-quality, flexible programs include degree completion, certificates, and enrichment courses. CGS provides a single point of access to the University's innovative programs and services that both enrich lives and promote the economic health of the region.

***Requirements subject to change. Check with an academic advisor before registering.***

For more information, contact:

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