

Pre-Engineering Requirements

Bioengineering
Chemical and Petroleum Engineering
Civil and Environmental Engineering
Computer Engineering
Electrical Engineering
Engineering Physics
Industrial Engineering
Materials Science and Engineering
Mechanical Engineering

You can complete nearly half of the requirements for a degree in engineering at Learning Solutions, 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 2.5 QPA 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 do not have recent 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 consultant 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	4 cr.
	(not required for Computer Engineering)	
MATH 0250	Matrix Theory and Differential Equations	4 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.

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Chemistry

Preparation course:

CHEM 0100 Preparation for General Chemistry 3 cr.

Courses required prior to transfer:

CHEM 0110 General Chemistry 1 4 cr.

CHEM 0120 General Chemistry 2 4 cr.

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 consultant 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 Learning Solutions or the School of Engineering. You may obtain a list of approved Humanities and Social Science courses from an academic consultant.

Notes:

- The School of Engineering does not accept College Level Examination Program (CLEP) credits.
- University External Studies Program (UESP) 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 subject to change. Check with an academic consultant before registering.

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