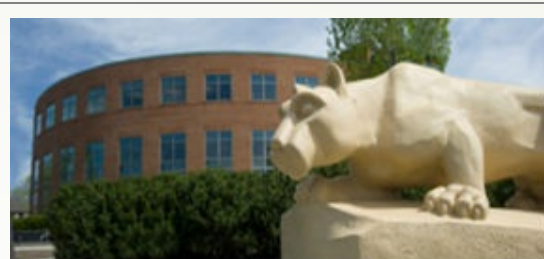


Bachelor of Science in Civil Engineering

The Civil Engineering program at Penn State Harrisburg is designed to provide the basic undergraduate education required for private and public service in civil engineering, and/or continue formal education. Emphasis is placed on the fundamentals of civil engineering principles and design techniques. The program requirements allow for flexible scheduling, enabling students to focus on one of following concentration areas: construction, environmental, structural, transportation, and general. Study through these areas may lead to opportunities as structural designers for buildings and infrastructures, project engineers for construction projects, or representatives for owners or contractors. Employers include consulting firms, contractors, industry, and governments.



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Content reviewed and approved Thu Oct 11, 2018 15:16:49 pm



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PennState
Harrisburg

**School of Science,
Engineering, and Technology**

**Bachelor of Science in
Civil Engineering**

Curriculum

The Bachelor of Science Degree in Civil Engineering requires a minimum of 127 credits with cumulative grade point average (GPA) of 2.0 or better.

The undergraduate curriculum enables each student to gain increased depth in a concentration area of interest. The concentrations that are offered in the Civil Engineering program are Construction (C), Environmental (E), Structural (S), Transportation (T), and General (G).

ENTRANCE TO MAJOR (ETM)

Entrance into the Civil Engineering major requires a minimum of third-semester classification (29.1 - 44.0 credits) with a minimum cumulative GPA of 2.0. In addition to the minimum GPA requirements described in the University Policies, all College of Engineering entrance to major course requirements must also be completed with a minimum grade of "C" or better for the following courses: CHEM 110 (GN), MATH 140 (GQ), MATH 141 (GQ), PHYS 211 (GN), and PHYS 212 (GN). All of these courses must be completed by the end of the semester during which the admission to major process is carried out.

[Undergraduate Admission to Penn State Harrisburg](#)

Graduate Studies

Students interested in graduate studies may pursue a Master of Engineering in Engineering Science. The program is designed to provide a broad, advanced education in the engineering sciences with some specialization permitted in the area of the student's major interest. It is offered specifically to permit practicing engineers to pursue advanced studies through evening classes while in full-time employment in industry.

Courses

For the B.S. degree in Civil Engineering, a minimum of 127 credits is required.

GENERAL EDUCATION (45 credits)

(27 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)

REQUIREMENTS FOR THE MAJOR: 112 credits

(This includes 27 credits of [General Education courses](#): 9 credits of GN courses; 6 credits of GQ courses; 3 credits of GS courses; 9 credits of GWS courses.)

PRESCRIBED COURSES (71 credits)

CHEM 110 GN(3)[1], CHEM 111 GN(1), E MCH 211(3)[1], EDSGN 100(3), MATH 140 GQ(4)[1], MATH 141 GQ(4)[1], PHYS 211 GN(4)[1] E MCH 212(3)[1], E MCH 213(3)[1], STAT 401(3), GEOSC 001(3), MATH 220 GQ(2), MATH 251(4), PHYS 212 GN(4) C E 310(3)[1], C E 321(3)[1], C E 332(3)[1], C E 335(3)[1], C E 336(3)[1], C E 340(3)[1], C E 360(3)[1], C E 370(3)[1], ENGL 202C GWS(3)

ADDITIONAL COURSES (29-32 credits)

C E 100S(1) or 1 credit of First-Year Seminar or elective
ENGL 015 GWS(3) or ENGL 030 GWS(3)
CAS 100A GWS(3) or CAS 100B GWS(3)
CMPSC 200 GQ(3) or CMPSC 201 GQ(3) or CMPSC 202 GQ(3)
ECON 102 GS(3), ECON 104 GS(3), or ECON 014 GS(3)
M E 201(3) or CH E 220(3)[30]
C E 337(1) or C E 475(4) [+]
Select 9 credits from C E 341(3), C E 342(3), , C E 371(3), C E 422(3), C E 423(3), C E 424(3), C E 432(3), C E 435(3), C E 436(3), C E 441(3), C E 447(3), C E 461(3), C E 462(3), C E 475(4), C E 476(3), C E 479(1) [#]
Select 3 credits of C E 410W(3), C E 421W(3), C E 438W(3), C E 448W(3), C E 465W(3), C E 472W(3)

SUPPORTING COURSES AND RELATED AREAS: (9 credits)

Select 9 credits of technical elective from C E 300-level courses, C E 400-level courses, or department list.

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

[30] Students may substitute 6 credits of ROTC for 3 credits of 400-level C E courses and 3 credits of M E or E E .

[+] If C E 475 is taken, one credit goes toward lab requirement and remaining three go towards C E or general technical electives.

[#] Those courses must be selected from at least 4 of the 5 technical areas in the Civil Engineering program--transportation (x20), construction (x30), structures (x40), hydrosystems (x60), and environmental (x70).

Undergraduate Admissions Requirements

Minimum high school course requirements for admission to baccalaureate (four-year) degree programs are listed below. Keep in mind that specific programs may have additional requirements or recommendations.

English

Four units, including one unit each in composition and literature, are required.

Social Studies/Art/Humanities

Three units in any combination of social studies, arts, and humanities are required.

World Language

Two units in a single world language other than English are required. However, a student may be admitted with fewer than two units in a world language other than English, but must correct this deficiency by the time s/he earns 60 credits or graduates from Penn State, whichever comes first. This deficiency may be corrected by passing one three- or four-credit college level world language course or by demonstrating proficiency equivalent to two units of high school world language study.

Either a third unit in the same language or an additional unit in a second world language other than English is recommended.

Science

Three units of science are required
Preparation in chemistry and physics is recommended but not required for our Science and Engineering/Engineering Technology programs

Math

Three units of mathematics are required (four are recommended), selected from any combination of algebra, geometry, and trigonometry
Some programs have additional mathematics requirements. Our Business, Engineering/Engineering Technology, and Science programs require one-half unit of trigonometry or higher level math within the required three units

Penn State requires proof of graduation or a GED for admission to four-year degree programs.

*In most high school curricula, one unit = one year.

Visit Undergraduate Admissions: Admissions Requirements for more information (<http://goo.gl/eVGAMB>)