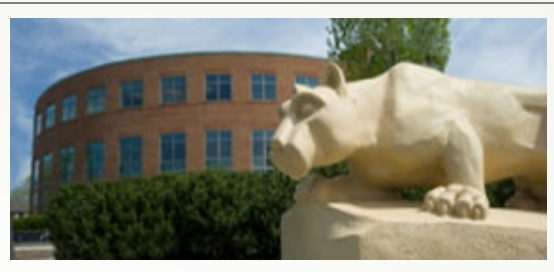


## Bachelor of Science in Structural Design and Construction Engineering Technology

The program in Structural Design and Construction Engineering Technology (SDCET) provides the basic education required for the structural engineer and construction profession. Students learn the basic general engineering concepts needed for this major with emphasis on the fundamentals, structural design principles, and construction techniques through required course work.



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**PennState**  
Harrisburg

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

**Bachelor of Science in  
Structural Design and  
Construction Engineering  
Technology**

## Curriculum

The Bachelor of Science Degree in SDCET requires a minimum of 125 credits with cumulative grade point average (GPA) of 2.0 or better.

This program is accredited by the Engineering Technology Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

### Entrance to Major (ETM)

Entrance into the SDCET major requires a third-semester classification (29.1 - 44.0 credits) with a minimum cumulative GPA of 2.0.

### [Undergraduate Admission to Penn State Harrisburg](#)

#### Degree Program Options

##### Construction Management (CM)

The CM option prepares students for a challenging and rewarding career in management within the construction industry. This option provides students with additional knowledge to organize and manage people, materials, and processes of construction, utilizing the latest technologies within the industry. The option requires courses in Planning and Scheduling, Construction Management II, Fundamentals of HVAC, Business, and the Construction Management Capstone Project, which integrates major courses with a construction management focus.

##### Structural Design (SD)

The SD option prepares students for a promising career in the engineering world. This option provides students with additional knowledge to analyze or design various structural systems based on the current standards of practice. The option courses include: Advanced Structural Analysis, Advanced Structural Design, Dynamics, Fluid Flow, and the Structural Design Capstone Project.

##### General Option (G)

The general option is not focused in a specified area; students broaden their knowledge in both the structural design and construction management areas beyond the core curriculum. The option courses include: Advanced Structural Analysis, Advanced Structural Design, Planning and Scheduling, Construction Management II, Fundamentals of HVAC, Fluid Flow, and either the Structural Design or Construction Management Capstone Project.

##### 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 Structural Design and Construction Engineering Technology, a minimum of 125 credits is required.

Scheduling Recommendation by Semester Standing given like (Sem: 1-2)

In addition to [General Education requirements](#) (45 credits), this major requires the following:

**ELECTIVES:** 2-10 credits

**REQUIREMENTS FOR THE MAJOR:** 95-102 credits  
(This includes 24 credits of General Education courses: 9 credits of GN courses; 6 credits of GQ courses; 3 credits of GS courses; 3 credits of GWS courses; 3 credits of GHA courses.)

**COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS):** 76-80 credits

### PRESCRIBED COURSES (45 credits)

CHEM 110 GN(3), CHEM 111 GN(1), ENGL 202C GWS(3),

MATH 140 GQ(4) (Sem: 1-4)

ET 200(3) (Sem: 2-5)

C E 254 GHA;US(3)[1], SSET 295(1) (Sem: 3)

CET 342(3), CET 343(3) (Sem: 5-6)

C E 333W(3)[1], CET 308(3), CET 430(3)[1], CET 431(3)[1], CET

432(3)[1], CET 434(3), CET 435(3)[1] (Sem: 5-8)

### ADDITIONAL COURSES (31-35 credits)

Select 2-3 credits from: EG T 101(1) and EG T 102(1) or EDSGN 100(3) (Sem: 1-2)

Select 3-4 credits from: PHYS 150 GN(3), PHYS 211 GN(4), PHYS 250 GN(4) (Sem: 1-3)

Select 3-4 credits from: PHYS 151 GN(3), PHYS 212 GN(4), PHYS 251 GN(4) (Sem: 2-4)

Select 3 credits from: ECON 014 GS(3), ECON 102 GS(3), ECON 104 GS(3) (Sem: 2-4)

Select 4 credits from: MATH 141 GQ(4), STAT 200 GQ(4) (Sem: 2-6)

Select 3 credits from: E MCH 211(3)[1], ET 300(3), MCH T 111(3) [1] (Sem: 2-6)

Select 3 credits from: E MCH 213(3)[1], ET 322(3)[1], MCH T 213(3)[1](Sem: 2-6)

Select 1 credit from: ET 323(1), MCH T 214(1) (Sem: 2-6)

Select 3 credits from: C E 310(3), SUR 111(3) (Sem: 2-7)

Select 3 credits from: CMPSC 101 GQ(3), CMPSC 121 GQ(3), CMPSC 201 GQ(3), CMPSC 202 GQ(3) (Sem: 3-4)

Select 3-4 credits from: ACCTG 211(4); MGMT 100(3) or MGMT 301(3) (Sem: 3-8)

Visit for complete details.

## 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>)