

Bachelor of Science in Science

The Bachelor of Science (B.S.) curriculum is designed specifically for students who have education goals relating to scientific theory and practice and who require a high degree of flexibility to obtain their educational objectives. After completing foundation courses in calculus, chemistry, physics, and the life sciences, students will select additional science courses from designated areas.



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

**Bachelor of Science in
Science**

Curriculum

A large number of supporting credits permit students to readily include significant breadth or specialization into their undergraduate curriculum. Some examples include minors in business, computer and information science, education, kinesiology, or other fields. The degree allows students throughout the Commonwealth to become familiar with both the theory and the practice of science. It can help prepare students for various careers in pharmaceutical, biotechnical, chemical, medical, and agricultural industries. The degree can also be tailored to meet the specific requirements of professional programs such as medical, dental, or pharmacy schools. The General Science option of the B.S. Science degree allows for the most flexibility. Achievement in a more specialized set of goals can be met by selecting one of the other three B.S. options. The General Science and Life Sciences options are offered at Penn State Harrisburg.

In order to be eligible for entrance to the Science major, a student at any location must have:

1. attained at least a 2.00 cumulative grade-point average
2. completed MATH 140 (GQ) Calculus With Analytic Geometry I (4) with a grade of C or better
3. completed at least two of the following courses with a grade of C or better:
 - BIOL 110 (GN) (4)
 - CHEM 110 (GN) (3)
 - PHYS 211 (GN) (4) OR PHYS 250 (GN) (4)

TWO-YEAR PREPROFESSIONAL PREPARATION:

The first two years of the Science major (62 credits) can meet the preprofessional needs of those interested in admission to some schools of pharmacy, physical therapy, optometry, nursing, and physician assistant training. Successful students can then transfer after two years of undergraduate study to the professional school to which they are admitted. Note, however, that no Penn State degree can be awarded after only two years (62 credits) of study in the Science major. Also, note that the abbreviated two-year curriculum alone does not prepare students for admission to professional schools of general medicine, veterinary medicine, or dental medicine. Consult with your college's health sciences professional adviser for additional information.

For the B.S. degree in Science, a minimum of 124 credits is required, with at least 15 credits at the 400 level.

Courses

For the B.S. degree in Science, a minimum of 124 credits is required, with at least 15 credits at the 400 level.

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

REQUIREMENTS FOR THE MAJOR: 94 credits

(This includes 15 credits of General Education courses: 9 credits of GN courses; 6 credits of GQ courses.)

COMMON REQUIREMENTS FOR MAJOR (All options)

PRESCRIBED COURSES (20 credits)

CHEM 110 GN(3)[1], CHEM 111 GN(1), CHEM 112 GN(3), CHEM 113 GN(1), MATH 140 GQ(4)[1], MATH 141 GQ(4) (Sem: 1-2)
BIOL 110 GN(4)[1] (Sem: 1-4)

REQUIREMENTS FOR THE OPTIONS: 60-88 credits

GENERAL SCIENCE OPTION: (68-79 credits)

ADDITIONAL COURSES (15-20 credits)

Select 4 credits from BIOL 129 GN(4), BIOL 220W(4), BIOL 230W(4), BIOL 240W(4) or BIOL 141 GN(3) and BIOL 142(1) (Sem: 3-4)
Select 3-4 credits from STAT 200 GQ(4), or STAT 250 GQ(3) or STAT 301(3) or STAT 401(3) (Sem: 3-4)
Select 8-12 credits from PHYS 211 GN(4)[1], PHYS 212 GN(4), PHYS 213 GN(2), PHYS 214 GN(2); or PHYS 250 GN(4) [1], PHYS 251 GN(4) (Sem: 3-6)

SUPPORTING COURSES AND RELATED AREAS (53-59 credits)

(A maximum of 12 credits of Independent Study [296, 496] may be applied toward credits for graduation.)
Select 20-26 credits from program list (Students may apply 6 credits of ROTC.) (Sem: 1-8)
Select 3 credits from earth and mineral sciences (Sem: 3-8)
Select 18 credits in life, mathematical, or physical sciences, with at least 9 credits[1] at the 400 level[60] (Sem: 3-8)
Select 3 credits in Global, Social and Personal Awareness from department approved course list in consultation with adviser (Sem: 3-8)
Select 3 credits in Teamwork and Interpersonal Communication from department approved course list in consultation with adviser (Sem: 3-8)
Select 6 credits of 400-level courses (Sem: 5-8)

Visit the program's website 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>)