**B.S. in SCIENCE**

**GENERAL OPTION**

**MAJOR REQUIREMENTS**

**PRESCRIBED COURSES, 20 credits**

- ☐ BIOL 110, 4 credits [C or better required]
- ☐ CHEM 110, 3 credits [C or better required]
- ☐ CHEM 111, 1 credit
- ☐ CHEM 112, 3 credits
- ☐ CHEM 113, 1 credit
- ☐ MATH 140, 4 credits [C or better required]
- ☐ MATH 141, 4 credits

**OPTION REQUIREMENTS**

**ADDITIONAL COURSES, 15-20 credits**

- **Biology, 4 credits:**
  Select one of the following lecture/lab combinations:
  - ☐ BIOL 129, 4 cr.
  - ☐ BIOL 141 and 142, 4 cr.
  - ☐ BIOL 220W, 4 cr.
  - ☐ BIOL 230W, 4 cr.

- **Statistics, 3-4 credits:**
  Select one of the following courses:
  - ☐ STAT 200, 4 cr.
  - ☐ STAT 250, 3 cr.

- **Physics, 8-12 credits:**
  Complete one of the following sequences in its entirety:
  - ☐ PHYS 211, 4 cr. [C or better required]
  - ☐ PHYS 250, 4 cr. [C or better required]
  - ☐ PHYS 212, 4 cr.
  - ☐ PHYS 213, 2 cr.
  - ☐ PHYS 214, 2 cr.

**124 total eligible credits required**

**SUPPORTING COURSES, 54-59 credits**

- **Earth and Mineral Sciences, 3 credits:**
  Select one course from the College of Earth & Mineral Sciences.
  (EARTH, EGEE, EM SC, GEOG, GEOSC, MATSE, METEO Departments)

- **Global, Social, and Personal Awareness, 3 credits:**
  Select one course from Department List.

- **Teamwork and Interpersonal Communication, 3 credits:**
  Select one course from Department List.

- **400-level Courses, 6 credits:**
  Select 6 credits of 4xx courses from any Department.

- **Electives (Program List):** Select 21-26 credits in consultation with an adviser. (See Program List Exclusions.)

- **400-level Life, Mathematical, or Physical Sciences, 9 credits:**
  Select 9 credits of 4xx courses from the following Departments:
  Life: BMB, BIOL, MICRB; Mathematical: CMPSC, MATH, STAT;
  Physical: ASTRO, CHEM, and PHYS. (See Program List Exclusions.)

- **Any-level Life, Mathematical, or Physical Sciences, 9 credits:**
  Select 9 credits of courses from the following Departments:
  Life: BMB, BIOL, MICRB; Mathematical: CMPSC, MATH, STAT;
  Physical: ASTRO, CHEM, and PHYS. (See Program List Exclusions.)

**Entrance-to-Major (ETM) course:** Prior to entering the Science major, students must have third-semester standing (29.1 credits or more) and earn a C or better in all ETM courses: MATH 140, and at least two of BIOL 110, CHEM 110, and PHYS 211 or 250.
PENN STATE UNIVERSITY | EBERLY COLLEGE OF SCIENCE
PROGRAM YEAR: 2018

GENERAL EDUCATION REQUIREMENTS

**KNOWLEDGE DOMAINS**

Natural Sciences (GN), 9 credits
- BIOL 110, 4 credits
- CHEM 110 & 111, 4 credits
- CHEM 112 & 113, 4 credits

Arts (GA), 6 credits\(^\text{\%}\)
(3 credits must NOT be inter-domain*)
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Humanities (GH), 6 credits\(^\text{\%}\)
(3 credits must NOT be inter-domain*)
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Social and Behavioral Sciences (GS), 6 credits\(^\text{\%}\)
(3 credits must NOT be inter-domain*)
- 
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Health and Wellness (GHW), 3 credits\(^\text{\%}\)
(3 credits must NOT be inter-domain*)
- 
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Additional Knowledge Domain Courses, 0-6 credits*
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**FOUNDATIONS**

Writing & Speaking (GWS), 9 credits \(C\) or better required
- ENGL 15\(^*\) or ENGL 30 or ESL 15, 3 credits
- CAS 100, 3 credits
- ENGL 202 A, B, C, or D, 3 credits (Option A or C preferred)
  - For Schreyer Honors students, ENGL 15 and CAS 100 are replaced with ENGL/CAS 137 and ENGL/CAS 138

Quantification (GQ), 6 credits \(C\) or better required
- MATH 140, 4 credits
  - (ECoS Req.: must be MATH 141, STAT 2xx, CMPSC 101, or higher.)

**ADDITIONAL UNIVERSITY REQUIREMENTS**

Requirements in this category only may be satisfied by courses being used elsewhere for the degree.

First-Year Seminar (FYS), 1 credit
- PSU 16, 1 credit

US Cultures (US), 3 credits
- 

International Cultures (IL), 3 credits
- 

Writing Across the Curriculum (WAC), 3 credits
- 

Integrative Studies (IS), 6 credits
- Must be two (paired) Linked courses (Z-suffix), or two (distinct) Inter-domain* courses (N-suffix)
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Move-3 Substitution: A student may choose to shift 3 credits of courses from the GN, GA, GH, or GS categories to either GN, GA, GH, GS, or GHW categories at the approval of an Academic Adviser.

*Inter-domain courses* span across two different Knowledge Domains. One inter-domain course may count as 3 credits toward each Domain, but 30 distinct credits of Knowledge Domain courses (GN/GA/GH/GS/GHW) are required in total.

*Move-3 Substitution:* A student may choose to shift 3 credits of courses from the GN, GA, GH, or GS categories to either GN, GA, GH, GS, or GHW categories at the approval of an Academic Adviser.
**B.S. in Science, General Option**

**List 1 Teamwork and Interpersonal Communications**
- CAS 203 (GS) Interpersonal Communication (3)
- CAS 252 Business and Professional Communication (3)
- CAS 253 Health Communication (3)
- CAS 271 (US;IL) Intercultural Communication (3)
- HD FS 216 Personal & Interpersonal Skills (3)
- PSYCH 140 Management of Interpersonal Relationships (3)
- PSYCH 221 (GS) Social Psychology (3)
- PSYCH 232 (GS;US;IL) Cross-Cultural Psychology (3)
- SOC 003 (GS) Intro to Social Psychology (3)
- SOC 404 Social Influence and Small Groups (3)

**List 2 Global, Social and Personal Awareness**
- AAA S 103 (US) (SOC 103, WMNST 103) Racism and Sexism (3)
- AAA S 302 (US) (BB H 302) Diversity and Health (3)
- ANTH 045 (GS; US; IL) Cultural Anthropology (3)
- HD FS 129 (GS) Introduction to Human Development and Family Studies (3)
- HD FS 229 (GS) Infant and Child Development (3)
- HD FS 239 (GS) Adolescent Development (3)
- HD FS 249 (GS) Adult Development and Aging (3)
- HD FS 315 (US) Family Development (3)
- PSYCH 212 (GS) Introduction to Developmental Psychology (3)
- PSYCH 231 (GS;US) Introduction to the Psychology of Gender (3)
- PSYCH 232 (GS;US;IL) Cross-Cultural Psychology (3)
- PSYCH 260 (BB H 203) Neurological Basis of Human Behavior (3)
- PSYCH 270 Introduction to Abnormal Psychology (3)
- PSYCH 370 (US) Psychology of the Differently-Abled (3)
- RL ST 001 (GH;US;IL) Introduction to World Religions (3)
- SOC 001 (GS) Introductory Sociology (3)
- SOC 005 (GS) Social Problems (3)
- SOC 119 (GS;US) Race and Ethnic Relations (4)

*Please note pre-requisites and co-requisites when selecting course options for your program.*
Students may select supporting courses from nearly the entire range of the University’s course offerings. However, the following courses may **NOT** be used to satisfy degree requirements in the Science and Premedicine majors. This list applies to ALL options in the Science BS major.

- **BIOL 001, 003, 011*, 012***
- **BI SC 001, 002, 003*, 004***
- **B M B 001***
- **CAS 126**
- **CHEM 001, 003, 005, 101, 108**
- **CMPSC 100**
- **ENGL 004, 005**
- **ESL 004, 005**
- **LL ED 005, 010**
- **MATH 003, 004, 010, 017, 018, 021, 022, 026, 030, 033, 034, 035, 036, 040, 041, 081, 082, 083, 097, 110, 111, 200**
- **PHYS 001, 010, 097, 114, 150, 151**
- **STAT 100**

*On rare occasions, with adequate justification, a student may be permitted to use one or more of these courses to satisfy degree requirements. A petition must be submitted to request such an exception. Consult with your academic adviser.

In addition, the following types of courses may not be used to satisfy degree requirements in the Science or Premedicine majors:

- Courses which are remedial in nature or which focus on reading improvement or study skills.
- Courses which substantially duplicate the subject matter covered in other completed courses taught at a comparable level.

Some courses may be counted toward degree requirements in the Science and Premedicine majors with some restrictions:

- No more than 4 credits of MATH 140A may be used.
- No more than 6 credits of ROTC courses (AIR, ARMY, NAVSC) may be used.
- No more than 12 credits of independent study (296, 496, etc.) may be used.
  **Unless special permission is granted, Independent Study credit may only be used in “Supporting Courses” and “Any 400-level Course Work” categories.**
- No more than 5 credits of KINES Physical Activity courses may be used.
  **KINES Health Courses (KINES 180, etc.) are not limited to 5 credits.**