

# ENGINEERING SCIENCE, B.S.

**Begin Campus:** Any Penn State Campus

**End Campus:** University Park

## Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2023-24 academic year. To access previous years' suggested academic plans, please visit the archive (<https://bulletins.psu.edu/undergraduate/archive/>) to view the appropriate Undergraduate Bulletin edition (*Note: the archive only contains suggested academic plans beginning with the 2018-19 edition of the Undergraduate Bulletin*).

### Engineering Science, B.S. at University Park Campus

The course series listed below provides **only one** of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an **Academic Requirements** or **What If** report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

**If you are starting at a campus other than the one this plan is ending at, please refer to:** <http://advising.engr.psu.edu/degree-requirements/academic-plans-by-major.aspx>

#### First Year

Fall	Credits	Spring	Credits
CHEM 110 (GN) <sup>**†</sup>	3	CHEM 111	1
ECON 102 or 104 (GS) <sup>†</sup>	3	ENGL 15, 30H, or ESL 15 (GWS) <sup>††</sup>	3
EDSGN 100 <sup>*#</sup>	3	ESC 261M or CMPSC 201	3
MATH 140 or 140E (GQ) <sup>*†#†</sup>	4	MATH 141 or 141E (GQ) <sup>*†#†</sup>	4
General Education Course <sup>†</sup>	3	PHYS 211 (PHYS 211L & PHYS 211R (GN)) <sup>**†</sup>	4
		First Year Seminar <sup>†</sup>	1
	<b>16</b>		<b>16</b>

#### Second Year

Fall	Credits	Spring	Credits
EMCH 210H <sup>*</sup>	5	CAS 100A or 100B (GWS) <sup>††</sup>	3
MATH 220	2-3	EMCH 212H <sup>*</sup>	3
MATH 251 <sup>*</sup>	4	ME 302	4
PHYS 212 (PHYS 212L & PHYS 212R (GN)) <sup>*†</sup>	4	MATH 230	4
General Education Course <sup>†</sup>	3	PHYS 214	2
	<b>18-19</b>		<b>16</b>

#### Third Year

Fall	Credits	Spring	Credits
EE 210	4	ESC 409	1
ESC 312	3	Foundational Elective	3
ESC 407 <sup>*</sup>	3	Foundational Elective	3
ESC 414M <sup>*</sup>	3	Foundational Elective	3
ESC 433	1	Foundational Elective	3

General Education Course <sup>†</sup>	3 Foundational Elective	3
	<b>17</b>	<b>16</b>

#### Fourth Year

Fall	Credits	Spring	Credits
ENGL 202C (GWS) <sup>††</sup>	3	ESC 411	2
ESC 404 <sup>*</sup>	3	Technical Elective	3
ESC 410	3	Technical Elective	3
Technical Elective	3	General Education Course <sup>†</sup>	3
Technical Elective	3	General Education Course <sup>†</sup>	3
General Education Course (GHW) <sup>†</sup>	1.5	General Education Course (GHW) <sup>†</sup>	1.5
	<b>16.5</b>		<b>15.5</b>

#### Total Credits 131-132

\* Course requires a grade of C or better for the major

‡ Course requires a grade of C or better for General Education

# Course is an Entrance to Major requirement

† Course satisfies General Education and degree requirement

#### University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures).

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

All incoming Schreyer Honors College first-year students at University Park will take ENGL 137H/CAS 137H in the fall semester and ENGL 138T/CAS 138T in the spring semester. These courses carry the GWS designation and satisfy a portion of that General Education requirement. If the student's program prescribes GWS these courses will replace both ENGL 15/ENGL 30H and CAS 100A/CAS 100B/CAS 100C. Each course is 3 credits.

#### College Notes:

- **CMPSC 201:** Students are expected to complete the version of CMPSC that is required for their intended major. The requirement varies across College of Engineering majors. Students should plan the CMPSC course requirement carefully with the assistance of an academic adviser.
- **Foundational Elective:** Select from department list.
- **Health and Physical Activity:** Students who complete the ROTC Program may substitute 3 ROTC credits for the GHW requirement.
- **Technical Elective:** Select from department list. A student may use **only one** of the following as a substitute for a Technical Elective: 3 co-op credits, provided the student completes three Cooperative Education Program rotations; 3 ROTC credits, provided the student completes the ROTC Program; or one 3-credit course required for a

minor but not otherwise included in degree requirements, provided the student completes all the requirements of the minor.

• ***These courses offered at University Park in fall semester only:***

- EE 210
- EMCH 210H
- ESC 312
- ESC 404
- ESC 407
- ESC 414M
- ESC 433

• ***These courses offered at University Park in spring semester only:***

- EMCH 212H
- ESC 261M
- ME 302