

# MECHANICAL ENGINEERING, B.S. (CAPITAL)

**Begin Campus:** Any Penn State Campus

**End Campus:** Harrisburg

## 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*).

### Mechanical Engineering, B.S. at Harrisburg 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.

#### First Year

Fall	Credits Spring	Credits
ENGL 15, 15S, 30T, or ESL 15 <sup>†</sup>	3 PHYS 211 <sup>**†</sup>	4
MATH 140 <sup>**†</sup>	4 MATH 141 <sup>**†</sup>	4
EDSGN 100S	3 CAS 100A or 100S <sup>‡</sup>	3
CHEM 110 <sup>**†</sup>	3 MATH 220 <sup>*</sup>	2
CHEM 111	1 ECON 102 or 104 <sup>†</sup>	3
General Education Course	3	
	<b>17</b>	<b>16</b>

#### Second Year

Fall	Credits Spring	Credits
EMCH 211 <sup>*</sup>	3 EMCH 212 <sup>*</sup>	3
PHYS 212	4 EMCH 213 <sup>*</sup>	3
MATH 230	4 ME 300 <sup>*</sup>	3
MATH 251 <sup>*</sup>	4 EE 211, 210, or 212	3
General Education Course (GHW)	1.5 CMPSC 200	3
	General Education Course	3
	<b>16.5</b>	<b>18</b>

#### Third Year

Fall	Credits Spring	Credits
ENGL 202C <sup>‡</sup>	3 PHYS 214	2
MATSE 259 <sup>*</sup>	3 ME 345W <sup>*</sup>	4
ME 320 <sup>*</sup>	3 ME 357 <sup>*</sup>	3
ME 349 <sup>*</sup>	3 ME 367 <sup>*</sup>	3
ME 365 <sup>*</sup>	1 General Education Course	3
ME 380 <sup>*</sup>	3	
	<b>16</b>	<b>15</b>

#### Fourth Year

Fall	Credits Spring	Credits
ME 410 <sup>*</sup>	3 ME 449 <sup>*</sup>	3
ME 448 <sup>*</sup>	3 4XX Engineering Elective <sup>*</sup>	3
ME 468 <sup>*</sup>	3 4XX Engineering Elective <sup>*</sup>	3
ME 308 or 465 <sup>*</sup>	1 General Education Course	3
4XX Engineering Elective <sup>*</sup>	3 General Education Course	3
4XX Engineering Elective <sup>*</sup>	3 General Education Course (GHW)	1.5
	<b>16</b>	<b>16.5</b>

#### Total Credits 131

- \* 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

- <sup>1</sup> CHEM 111 - Experimental Chemistry I  
Students may substitute either CHEM 112 (3) or BIOL 141 (3) for the combination of CHEM 111 (1) and PHYS 214 (2).
- <sup>2</sup> PHYS 214 - General Physics: Wave Motion and Quantum Physics
- <sup>3</sup> 4XX Engineering Elective  
See list below for eligible electives

#### 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.

#### Program Notes

4XX Engineering Electives include:

- ME 402 - Power Plants
- ME 408 - Energy Systems
- ME 431 - Internal Combustion Engines
- ME 455 - Automatic Control Systems
- ME 460 - Advance Machine Design Problems
- ME 461 - Finite element in Engineering
- ENVE 430 - Sustainable Engineering
- and others offered by the program