# MECHANICAL ENGINEERING, B.S. (ALTOONA)

Begin Campus: Any Penn State Campus

End Campus: Altoona

# **Suggested Academic Plan**

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2024-25 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.

# Mechanical Engineering, B.S. at Altoona 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 |
|---|--|---------|
| First-Year Seminar                                    | 1 Science Elective (see below)                             | 3       |
| ENGL 15 <sup>‡†</sup>                                 | 3 ECON 102 or 104 (GS)                                     | 3       |
| EDSGN 100*#   | 3 MATH 141 <sup>*‡#†</sup>                                 | 4       |
| General Education Course (GA, GH, or GS) <sup>†</sup> | 3 General Education Course<br>(GA, GH, or GS) <sup>†</sup> | 3       |
| MATH 140*‡#†  | 4 PHYS 211*#†  | 4       |
| CHEM 110*#†   | 3  |         |
|   | 17   | 17      |

#### Second Year

| Fall                           | Credits Spring  | Credits |
|--------------------------------|---|---------|
| CMPSC 200                      | 3 EMCH 212 <sup>*</sup>                               | 3       |
| CAS 100A or 100B <sup>‡†</sup> | 3 EMCH 213 <sup>*</sup>                               | 3       |
| EMCH 211*                      | 3 ME 300 <sup>*</sup>                                 | 3       |
| MATH 251 <sup>*</sup>          | 4 MATH 231  | 2       |
| PHYS 212*†                     | 4 MATH 220  | 2       |
|                                | General Education Course<br>(GA, GH, GS) <sup>†</sup> | 3       |
|                                | 17  | 16      |

#### Third Year

| Fall                | Credits Spring                                 | Credits |
|---------------------|--|---------|
| IE 312              | 3 ME 454 <sup>*</sup>                          | 3       |
| MATSE 259           | 3 ENGL 202C <sup>‡†</sup>                      | 3       |
| ME 330 <sup>*</sup> | 3 ME 340 <sup>*</sup>                          | 3       |
| ME 370 <sup>*</sup> | 3 ME 360 <sup>*</sup>                          | 3       |
| ME 348 <sup>*</sup> | 4 ME 320 <sup>*</sup>                          | 3       |
| ME 390              | 0.5 ME 490                                     | 0.5     |
|                     | General Education Course<br>(GHW) <sup>†</sup> | 1.5     |
|                     | 16.5   | 17      |

#### Fourth Year

| Fall  | Credits Spring  | Credits |
|---|---|---------|
| Engineering Technical<br>Elective (ETE)                               | 3 ME 440W   | 3       |
| ME 410 <sup>*</sup>   | 3 General Education Course<br>(GA, GH, or GS) <sup>†</sup>              | 3       |
| ME 450 <sup>*</sup>   | 3 General Education Course<br>(GA, GH, or GS) <sup>†</sup>              | 3       |
| Mechanical Engineering<br>Technical Elective (METE)                   | 3 General Technical Elective (GTE)                                      | 3       |
| ME 315, 325, 355, 375, or<br>EMCH 316 (Mechanical<br>Engineering Lab) | 1 ME 315, 325, 355, 375, or<br>EMCH 316 (Mechanical<br>Engineering Lab) | 1       |
| General Education Course (GHW) <sup>†</sup>                           | 1.5 Engineering Technical<br>Elective (ETE)                             | 3       |
| ·   | 14.5  | 16      |

#### **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

#### **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:**

- Science elective choices: CHEM 112, BIOL 141, or CHEM 111 and PHYS 214 (3 credits total)
- An Engineering Technical Elective (https://www.me.psu.edu/ students/undergraduate/curriculum-electives.aspx) is any three credit, 400-level engineering course NOT required for the major.
- To graduate, two of the following lab courses must be taken: ME 315, ME 325, ME 355, ME 375, and EMCH 316.
- A Mechanical Engineering Technical Elective (METE) is any three# credit, 400#level ME course that is not required for the major. ME 494 or ME 496 may not be used.

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- Three credits of co-op may also be used for the GTE after completion of three co-op rotations, internships, or a combination of both.
- Students must take 3 credits of United States Cultures (US) and 3 credits of International Cultures (IL) and 6 credits integrative studies (Inter-Domain or Linked) in conjunction with General Education GA, GH, GS courses courses.