

ME Program Planner + Requirement Check List

When picking courses, always consult the semester-by-semester course planner available on the [mechanical engineering undergraduate program page](#).

Typical Foundational Courses

Only offered in **fall**:

- PHYS 122: Electricity and Magnetism (*PHY 121 and MTH 143 or 162*)
- CHEM 137: Chemical Principles for Engineers

Only offered in the **spring**:

- PHYS 121: Mechanics (*PHY 099 or ME 104 and MTH 161*)

Offered in **fall and spring**:

- MATH 161: Calculus 1A
- MATH 162: Calculus IIA (*MTH 161*)
- MATH 164: Multidimensional Calculus (*MTH 143 or 162 or 172*)
- MATH 165: Linear Algebra and Differential Equations (*MTH 143 or 162 or 172*)
- OPT 210: Circuits (*MTH 165 and PHY 122*)

**The MTH 140-3 series, though not preferred, can satisfy MTH 161 and 162*

**MTH 170-4 and PHY 141-2 honors series can satisfy respective requirements*

One Technical Elective

**Refer to website for course recommendations; outside credited sometimes accepted*

- _____

One Natural Science Course (NSDR)

**Refer to website for course recommendations; no exceptions made*

- _____

Cluster Distribution Requirements

- Social science or humanities cluster

(1)

(2)

(3)

- "Plus one" additional course of choice in social sciences **or** humanities

Mechanical Engineering Core Courses

*Upper-level writing courses include ME 204, 205, 240, 241 and cannot be taken elsewhere

Offered only in **fall**:

- ME 121: Engineering Mechanics II (*ME 120 and MTH 161+162*)
- ME 160: Engineering Computation I (*ME 120*)
- ME 204: Mechanical Design (*ME 226 and Senior Status*)
- ME 213: Mechanical Systems (*ME 121+226 and MTH 165*)
- ME 225: Intro to Fluid Dynamics (*MTH 164+165, PHY 121, ME 120*)
- ME 240: Fundamentals of Instrumentation/Measurement (*ME 226 and PHY 122*)
- ME 280: Intro to Material Science (*ME 226 and PHY 122*)

Offered only in **spring**:

- ME 123: Thermodynamics (*MTH 162 and PHY 121*)
- ME 205: Advanced Mechanical Design (*ME 204*)
- ME 223: Heat Transfer (*ME 123+225 and MTH 165*)
- ME 226: Intro to Solid Mechanics (*ME 120*)
- ME 241: Mechanics Lab (*ME 225*)
- ME 251: Heat Power Application (*ME 123+225 or Concurrently with ME 225*)
- ME 260: Engineering Computation II (*ME 160 and MTH Series*)

Offered in **fall and spring**:

- ME 110: Intro to CAD and Drawing
- ME 120: Engineering Mechanics I (*MTH 161*)

General Writing Requirements

- WRTG 105
- WRTG 273

Free Electives (10 Credits Needed)

Free electives are only necessary if student **will not** reach 128 credit minimum needed to graduate.

- (1)
- (2)
- (3)