First year: take courses when eligible. Can add Pathways electives to fill in schedule.

Sophomore: 1st semester (14 credits)

Junior: 1st semester (15 credits)

Senior: 1st semester (12 credits)

5th year 1st semester (12 credits)

Notes:
- Arrows denote prerequisites. Prerequisites of prerequisites must be met. Prerequisites may change without warning. Please check for updates in the timetable of classes.
- For students graduating in 2023-24, any List #1 technical elective may be used to replace ME4124.
- **Required senior courses are offered only once per year; ME4015 & ME4016 must be taken in order during the same academic year, beginning in Fall.
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Still not sure about a major? See: www.careerconsmestone.org for help choosing an engineering or science major.

B.S. in Mechanical Engineering – Mechanical Engineering Major

Minimal Entrance Requirements1 (5-year plan, 10 semesters of classes)

First year:
- CHEM 1035 (3) Chemistry
- PHYS 2305 (4) Physics I
  Pre: MATH1225 Co: MATH 1226
- MATH 1225 (4) Calculus
  “Math ready”
- ME 2134 (4) Thermodynamics
  Pre: CHEM1035, MATH 1224 & PHYS2305
- ENGE 1215 (2) Found Engr
  Pre: PHYS 2305, MATH 1226
- STAT 3704 (2) Engr Statistics
  Pre: MATH 2204

Sophomore:
- 1st semester (14 credits)
  - PHYS 2306 Physics II (4)
    Pre: PHYS 2305, MATH1226
  - ME 2004 (3) Numerical Methods
    Pre: MATH1226, ENGE1215, MATH 2114
  - ESM2104 Statics (3)
    Co: MATH 2204
- 2nd semester (13 credits)
  - MATH 2214 (3) Diff Eqns
    Pre: MATH2114, MATH2214

Junior:
- 1st semester (15 credits)
  - ME 3414 (4) Fluid Mech (w/lab)
    Pre: MATH2114, 2214 & 2204, ME2004; Co: ME2134
  - ME 3024 (3) Design & Econ
    Pre: ENGE1215, MATH 2114
  - ME 3304 (3) Heat & Mass Transfer
    Pre: ME2134, MATH2214 & MATH2211
- 2nd semester (12 credits)
  - ME 3034 ME Discourse (1)
    Pre: ENGL1106
  - ME 3534 (4) Controls (w/lab)
    Pre: ESM2104 & 2304, ME2004, MATH2114, 2204 & 2214
  - ME 4015 (3) Senior Capstone Design
    Pre: ME3024, ME3304, ME3034, ME3524, ME3534 & ME4005

Senior:
- 1st semester (12 credits)
  - ME 4005 ME Lab (3)
    Pre: ECE 2054, STAT 3704, & ME3524 Co: MATH2214
  - Pathways Concept 2 (3)
  - Pathways Concept 3 (3)
- 2nd semester (12 credits)
  - List #1 Tech Elective (3)
  - Pathways Concept 7 (3)
  - Pathways Concept 2 (3)

5th year 1st semester (12 credits)

5th year 2nd semester (12 credits)

Notes:
- Arrows denote prerequisites. Prerequisites of prerequisites must be met. Prerequisites may change without warning. Please check for updates in the timetable of classes.

In-Major GPA
- 2.0 minimum (All ME, NSEG courses); if no in-major GPA, average 2.0 or higher in ESM2104, 2204, & 2304.

Overall GPA
- 2.0 minimum (All VT courses)

Pathways Concept 6-arts (3)

Pathways Concept 3 (3)

Pathways Concept 2 (3)

Specialized Concentrations

5th year 1st semester (12 credits)

5th year 2nd semester (12 credits)

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    Pre: PHYS 2305, MATH1226
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    Co: MATH 2204
- 2nd semester (13 credits)
  - MATH 2214 (3) Diff Eqns
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  - ME 3024 (3) Design & Econ
    Pre: ENGE1215, MATH 2114
  - ME 3304 (3) Heat & Mass Transfer
    Pre: ME2134, MATH2214 & MATH2211
- 2nd semester (12 credits)
  - ME 3034 ME Discourse (1)
    Pre: ENGL1106
  - ME 3534 (4) Controls (w/lab)
    Pre: ESM2104 & 2304, ME2004, MATH2114, 2204 & 2214
  - ME 4015 (3) Senior Capstone Design
    Pre: ME3024, ME3304, ME3034, ME3524, ME3534 & ME4005

Senior:
- 1st semester (12 credits)
  - ME 4005 ME Lab (3)
    Pre: ECE 2054, STAT 3704, & ME3524 Co: MATH2214
  - Pathways Concept 2 (3)
  - Pathways Concept 3 (3)
- 2nd semester (12 credits)
  - List #1 Tech Elective (3)
  - Pathways Concept 7 (3)
  - Pathways Concept 2 (3)

5th year 1st semester (12 credits)

5th year 2nd semester (12 credits)

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