Still not sure about a major? See: www.careercornerstone.org for help choosing an engineering or science major

**B.S. in Mechanical Engineering – Mechanical Engineering Major**
(for students entering 2021-22)

**Major Electives**

**List #1 ME/NSEG**
- Pathways Concept 1 (3)
- Pathways Concept 2 (3)
- Pathways Concept 3 (3)
- Pathways Concept 4 (3)

**List #2 ME/NSEG**
- Pathways Concept 1 (3)
- Pathways Concept 2 (3)
- Pathways Concept 3 (3)
- Pathways Concept 4 (3)

**List #3 ME/NSEG**
- Pathways Concept 1 (3)
- Pathways Concept 2 (3)
- Pathways Concept 3 (3)
- Pathways Concept 4 (3)

**Basic Science**
- Chemistry
- Physics
- Math

**Electrical, Instrumentation, Measurement**
- Electrical, Instrumentation, Measurement
- Measurement

**Mechanical, Materials, & Processes**
- Mechanical, Materials, & Processes

**Humanities**
- Humanities

**Major Electives**
- **List #1 ME/NSEG**
- **List #2 ME/NSEG**
- **List #3 ME/NSEG**

**Continued enrollment requirements:** see ME website for more information, www.me.vt.edu.
- 2.000 minimum in-major GPA (all “ME” & “NSEG” courses)
- 2.000 minimum extended in-major GPA (“ME”, “NSEG” courses & ESM2104, 2204, & 2304)
- 2.000 minimum overall GPA (all courses)
- By 45 attempted required hours completion of: ESM2104, MATH2204 & MATH2114
- By 60 attempted required hours completion of: MATH2214, ESM2304, & ME2004 (C-)
- By 72 attempted required hours completion of: ME2134 (C-), ME3024, & ME3524
- By 93 attempted required credits completion ME4015 and 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.**

Notes:
- Arrows denote prerequisites. Prerequisites of prerequisites must be met. Prerequisites may change without warning. Please check for updates in the timetable of classes.
- *Must earn C- or higher in ME2004 & ME2134 to meet prerequisite & graduation requirements.
- **Required senior courses are offered only once per year, ME4015 & ME4016 must be taken in order during the same academic year, beginning in Fall.**

Pathways Concept 6-Arts (3)
- Pathways Concept 6-Arts (3)

Pathways Concept 7 (3)
- Pathways Concept 7 (3)
- Pathways Concept 7 (3)

Pathways Concept 2 (3)
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Freshman: 1st semester (16 credits)
- CHEM 1035 (3) Chemistry
- CHEM 1045 (1) Chem Lab
  Co: CHEM 1035

Freshman: 2nd semester (16 credits)
- MATH 2114 (3) Linear Algebra
  Pre: MATH1225, ENGE1216, MATH 2114

Sophomore: 1st semester (17 credits)
- MSE 2034 (2) Elem Materials Engr
  Pre: CHEM 1035, MATH 2204 & PHYS2306; Co: MATH2214

Sophomore: 2nd semester (16 credits)
- *ME 2134 (4) Thermodynamics (C-)
  Pre: CHEM1035, MATH 2204 & PHYS2306

Junior: 1st semester (17 credits)
- ME 3414 (4) Fluid Mechanics (w/lab)
  Pre: MATH 2114, 2214 & 2204, ME2004(C-); Co: ME2134

Junior: 2nd semester (17 credits)
- ME 3304 (3) Heat & Mass Transfer
  Pre: ME2134(C-), ME3414, ME2004(C-), & MATH 2214

Senior: 1st semester (15 credits)
- **ME 4124 (3) CAD Thermal/Fluid Design
  Pre: ME2134(C-), ME3414, & ME3304

Senior: 2nd semester (15 credits)
- **ME 4015 (3) Senior Capstone Design
  Pre: ME4015 & ME4016

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- By 60 attempted required hours completion of MATH2214, ESM2204, & ME2004 (C-)
- By 72 attempted required hours completion of ME2134 (C-), (ME3024 or ME3624), & ME3524
- By 93 attempted required credits completion ME4015 and ME4124