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

B.S. in Mechanical Engineering - Robotics & Mechatronics Major
5 year Military Plan

Freshman: 1st semester (16 credits)
- CHEM 1035 (3) Chemistry
- PHYS 2305 (4) Physics I
  Pre: MATH1225
  Co: MATH 1226
- ECE 2054 (3) Electrical Theory
  Pre: PHYS2306, Co: MATH2214

Freshman: 2nd semester (16 credits)
- CHEM 1045 (1) Chem Lab
  Co: CHEM 1035

Sophomore: 1st semester (13 credits)
- ME 2134 (4) Thermodynamics (C-)
  Pre: CHEM1035, MATH 2204
  & PHYS2306; Co: MATH2214

Sophomore: 2nd semester (13 credits)
- ME 2004 (3) Numerical Methods (C-)
  Pre: MATH1225 (B) or MATH2226

Junior: 1st semester (12 credits)
- ME 3414(4) Fluid Mechanics (w/lab)
  Pre: MATH 2114, 2214 & 2204, ME2004(C-); Co: ME2134
- ME3024 (3) Design & Econ
  Pre: ME2004, ESM2204, ESM2304, ENGL1105 & 1106

Junior: 2nd semester (13 credits)
- ME 3034 (3) Heat & Mass Transfer
  Pre: ME2134(C-), ME3414, ME2004(C-), & MATH 2214
- ME 3034 ME Discourse (1)
  Pre: ME2004(C-), ME3024
- ME 3534 (4) Controls (w/lab)
  Pre: ESM2104 & 2304, ME2004(C-), ESM2304, ENGL1105 & 1106
- ME 4005 ME Lab (3)
  Pre: ECE 2054, STAT 3704, & ME3524
  Co: ME3534

Senior: 1st semester (12 credits)
- ESM 2104 Statics (3)
  Co: MATH 2204
- ESM204(3) Dynamics Deforms
  Pre: ESM2104 & ME2204
  Co: MATH 2214

Senior: 2nd semester (13 credits)
- ME 3624(4) Mech Design (w/lab)
  Pre: ESM 2204, MATH2214, ME2004(C-)
- ME 3524 (4) Vibrations
  Pre: ME2004(C-), ESM2304, MATH 2114 & 2214
- ESM 2014 Statics (3)
  Co: MATH 2204
- STAT 3704 (2) Engr Statistics
  Pre: MATH 2204

5 year 1st semester (12 credits)
- CS1044 (3) Programming in C

5 year 2nd semester (12 credits)
- ME 4016 (3) Senior Capstone Design (Spring only)
  Pre: ME 4015
  (continuation of ME 4015 project from previous Fall)

Notes:
- Arrows denote prerequisites. Prerequisites of prerequisites must be met. Prerequisites may change without warning - see undergrad catalog for updates.
- *Must earn C- or higher in ME2004 & ME2134 to meet prerequisite & graduation requirements.
- **Combine Pathways Concept 7 with Concept 2 or to eliminate 3 credits.
- ***Senior courses are offered only once per year; ME4015 & ME4016 must be taken in order during the same academic year, beginning in Fall.

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 & MATH2214
- By 60 attempted required hours completion of: MATH2214, ESM2304, & ME2004 (C-)
- By 72 attempted required hours completion of: ME2134 (C-), (ME3024 or ME3624), & ME3524
- By 93 attempted required credits completion ME4015 and ME4254

Revised November, 2021. For more information please see www.me.vt.edu.
This is an unofficial planning tool only; please see the approved checksheets on the Registrar’s website for official graduation requirements.