

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

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

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

**Freshman:
1st semester
(16 credits)**

**CHEM 1035 (3)
Chemistry**

**CHEM 1045 (1)
Chem Lab
Co: CHEM 1035**

**MATH 1225 (4)
Calculus (C-)
"Math ready"**

**ENGE 1215 (2)
Found Engr (C-)
Co: MATH 1225**

**ENGL 1105 (3)
Fr English**

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

**Freshman:
2nd semester
(16 credits)**

**PHYS 2305 (4)
Physics I
Pre: MATH1225
Co: MATH 1226**

**MATH 2114 (3) Linear Algebra
Pre: MATH1225 (B)
or MATH1226**

**MATH 1226 (4)
Calculus
Pre: MATH 1225 (C-)**

**ENGE 1216 (2)
Found Engr (C-)
Pre: ENGE 1215 (C-)**

**ENGL 1106 (3)
Fr English
Pre: ENGL 1105**

**Sophomore:
1st semester
(17 credits)**

**MSE 2034 (3) Elem
Materials Engr
Pre: CHEM 1035
Co: PHYS 2305**

**PHYS 2306 (4)
Physics II (4)
Pre: PHYS 2305,
MATH 1226**

***ME2004 (3) Numerical Methods (C-)
Pre: MATH1226, ENGE1216,
MATH 2114**

**ESM 2104 Statics (3)
Co: MATH 2204**

**MATH 2204
Multivar Calc (3)
Pre: MATH 1226**

**ISE 2214 (1)
Mfg Proc Lab
Pre: ENGE1216(C-)**

**Sophomore:
2nd semester
(16 credits)**

***ME 2134 (4) Thermodynamics (C-)
Pre: CHEM1035, MATH 2204
& PHYS2306; Co: MATH2214**

**ECE 2054 (3)
Electrical Theory
Pre: PHYS 2306,
Co: MATH 2214**

**MATH 2214 (3)
Diff Eqns
Pre: MATH1226,
MATH2114**

**ESM 2204 (3)
Deforms
Pre: ESM2104 &
MATH2204**

**ESM2304(3) Dynamics
Pre: ESM2104 &
MATH2204
Co: MATH 2214**

**Junior:
1st semester
(17 credits)**

**ME 3414 (4) Fluid Mechanics (w/lab)
Pre: MATH 2114, 2214 & 2204,
ME2004(C-); Co: ME2134**

**ME 3024 (3) Design & Econ
Pre: ME2004, ESM2204, ESM2304
ENGL1105&1106**

**ME 3624(4) Mech. Design (w/lab)
Pre: ESM 2204, MATH2214,
& ME2004(C-)**

**ME 3524 (4) Vibrations
Pre: ME2004(C-), ESM2304,
MATH 2114 & 2214**

**STAT 3704 (2)
Engr Statistics
Pre: MATH 2204**

**Junior:
2nd semester
(17 credits)**

**ME 3304 (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-),
MATH2114, 2204, & 2214**

**ME 4005 ME Lab (3)
Pre: ECE 2054
STAT3704, & ME3524
Co: ME3534**

**Pathways
Concept 2 (3)**

**Pathways
Concept 3 (3)**

**Senior:
1st semester
(15 credits)**

****ME 4124 (3) CAD Thermal/Fluid Design
Pre: ME2134(C-),
ME3414, & ME3304**

****ME 4015 (3) Senior Capstone Design
Pre: ME3024, MSE2034, ME3034, ME3304,
ME3524, ME3534, ME3624, &, ME4005**

**List #1 ME/NSEG
Tech Elective (3)**

**List #1 ME/NSEG
Tech Elective (3)**

**Pathways
Concept 3 (3)**

**Senior:
2nd semester
(15 credits)**

****ME 4016 (3)
Senior Capstone Design Pre: ME 4015
(continuation of same ME 4015 project from Fall)**

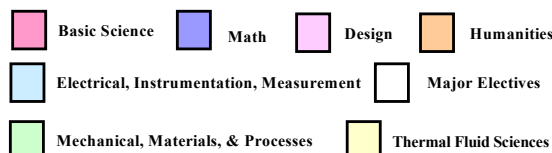
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Tech Elective (3)**

**List #1 or #2
Tech Elective (3)**

**Pathways
Concept 7 (3)**

**Pathways
Concept 2 (3)**

Color Code:



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.

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 or ME3624), & ME3524
- By 93 attempted required credits completion ME4015 and ME4124

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Concept 3 (3)**

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Senior Capstone Design Pre: ME 4015
(continuation of same ME 4015 project from Fall)**

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