B.S. in Mechanical Engineering – Automotive Major
Co-op Plan (9 semesters of classes)

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

Freshman: 2nd semester (16 credits)

Sophomore: 1st semester (16 credits)
- MSE 2034 (3) Elem Materials Engr
  Pre: CHEM1035, MATH 2204 & PHYS2306; Co: MATH2214
- PHYS 2306 Physics II (4)
  Pre: PHYS2305, MATH 2226

Sophomore: 2nd semester (13 credits)

Junior: 1st semester (12 credits + elective(s))
- *ME 2134 (4) Thermodynamics (C-)
  Pre: CHEM1035, MATH 2204 & PHYS2306; Co: MATH2214

Junior: 2nd semester (12 credits)

Junior: 3rd semester (14 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

Senior: 1st semester (9 cr + elective(s))
- ME 3304 (3) Heat & Mass Transfer
  Pre: ME2134(C-), ME3414, ME2004(C-), & MATH2214
- ME 3034 ME Discourse (1)
  Pre: ME2004(C-), ME3024

Senior: 2nd semester (9 cr + elective(s))
- Pathways** Concept 3 (3)
  (or CLE area 3*)
- Pathways** Concept 3 (3)
  (or CLE area 3*)
- Pathways** Concept 2 (3)
  (or CLE area 2*)
- Pathways** Concept 2 (3)
  (or CLE area 2*)

Pathways**

Notes:
- Arrows denote prerequisites. Prerequisites of prerequisites must be met. Prerequisites may change without warning. Please check for updates in the undergraduate catalog & meet with an ME advisor.
- *Must earn C- or higher in ME2004 & ME2134 to meet prerequisite & graduation requirements.
- **One course may be used to satisfy both Pathways Concept 7 and Concept 2 or 3 to save 3 credits.
- ***Required senior courses are offered only once per year; ME4015 & ME4016 must be taken in order during the same academic year, beginning in Fall.
- Note: Students entering 2020-21 can replace ME4534, Land Vehicle Dynamics, with another approved 3 credit automotive elective.

Continued enrollment requirements: see ME website for more information, www.me.vt.edu.
- 2.00 minimum overall GPA (all “ME” & “NSEG” courses)
- 2.00 minimum “ME” GPA (both “ME” & “NSEG” courses)
- 2.00 minimum extended in-major GPA (all courses)
- 2.00 minimum overall GPA (all courses)
- By 72 attempted required credits completion of: MATH2204, ESM2204, & MATH2114
- By 60 attempted required hours completion of: ME2134(C-), ME2004(C-), ME3524, & ME3554
- By 45 attempted required hours completion of: ME3524, ME3534, & ME3554
- By 30 attempted required hours completion of: ME3524(C-), ME3534, & ME3554
- By 24 attempted required hours completion of: ME3524(C-), ME3534, & ME3554
- By 91 attempted required credits completion ME4015 and ME4544

Revised July, 2021 - For more information please see www.me.vt.edu
### Co-op Schedule with First Work Term Spring of Second Year

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<th>Summer</th>
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### Co-op Schedule with First Work Term Summer of Second Year

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### Co-op Schedule with First Work Term Spring of Third Year

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### Co-op Schedules with 9 Academic (School) Terms:

See the color-coded degree path sheet on the previous page for which courses should be taken in each term.  

**Note:** Be sure to add any required Pathways (humanities) electives you have not completed. Note that “Junior 3” courses must be taken during a Spring semester or over the summer (not recommended).

Students gain 1+ years of engineering-related work experience while spreading out their courses into an additional semester. Median hourly rates for our co-op students were over $19/hour in 2018. Some students also received housing allowances or free housing and overtime pay.

In general, co-op students who work multiple terms with the same employer tend to:
- earn a higher hourly rate compared to summer interns who work for a single term only,
- participate in longer-term, more complex projects than interns
- get a broader experience with a company than an intern, possibly rotating between departments or job functions, and
- have a job offer from their employer before they start their senior year.

Employers expect all engineering students to have related work experience before they start a full time job after graduation. Co-op students tend to get higher starting salaries and more job offers than students who do internships only or who have no work experience at all. It is typically easier to find a co-op job than a summer internship, especially for rising sophomores and rising juniors.

Students care more about how long it takes them to graduate and how high their grades are, but above a minimum GPA (sometimes as low as a 3.0), employers care more about prior work experience.

The ME advisors strongly encourage students to get work experience over the summer instead of taking classes. If the required course load is too heavy, then one of the co-op schedules to the left may be perfect for you!