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

Freshman: 1st semester (16 credits)
CHEM 1035 (3) Chemistry

Freshman: 2nd semester (16 credits)
PHYS 2305 (4) Physics I
Pre: MATH1225 (B) or MATH1226

Sophomore: 1st semester (16 credits)
MATH 2214 (3) Calculus
Pre: MATH1225

Sophomore: 2nd semester (13 credits)
ME 3024 (3) Design & Econ
Pre: MATH1225, ME2004, MATH2114

Junior: 1st semester (12 cr + elective(s))
ME 3414 (4) Fluid Mech (w/lab)
Pre: MATH 2114, 2214 & 2204, ME2004; Co: ME2134

Junior: 2nd semester (12 credits)
ME 2304 (3) Elem Materials Engr

Junior: 3rd semester (14 credits)
ME 3204 (3) Design & Econ
Pre: ESM2104, ENGL1106

Senior: 1st semester (9 cr + elective(s))
ME 3304 (3) Heat & Mass Transfer
Pre: ME2134, ME4144, ME2004, & MATH2114

Senior: 2nd semester (9 cr + elective(s))
ME 3616 (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. Please check for updates in the undergraduate catalog & meet with an ME advisor.
- 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.
- Students entering 2020-21 can replace ME4534, Land Vehicle Dynamics, with another approved 3 credit automotive elective.

Assumes that classes with white fill have been completed before entering ME Department; adjust as necessary.

Continued enrollment requirements: see ME website for more information, www.me.vt.edu.

Revised Sept., 2023. 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.
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!