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

**Required senior courses are offered only once per year; ME4015 & ME4016 must be taken in order during the same academic year, beginning in Fall.**

### Freshman: 1st semester (16 credits)
- **Chemistry**
  - CHEM 1035 (3)
- **Physics**
  - PHYS 2305 (4)
  - Pre: MATH 1225, MATH 2214, or PHYS 2305
- **Engineering Mechanics**
  - ME 2134 (4)
  - Pre: CHEM 1035 & PHYS 2305

### Sophomore: 1st semester (13 credits)
- **Materials Engineering**
  - MSE 2034 (3)
  - Pre: CHEM 1035, MATH 2204 & PHYS 2305
- **Electrical Engineering**
  - ECE 2054 (3)
  - Pre: PHYS 2305
- **Mechanical Engineering**
  - ME 3024 (3)
  - Pre: ME 2134, ESM 2204, ESM 2304, & ENGL 1105 & 1106

### Junior: 1st semester (12 cr + elective(s))
- **Fluid Mechanics**
  - ME 3514 (4)
  - Pre: MATH 2114, 2214 & 2204, ME 2004, Co: ME 2134
- **Design & Engineering**
  - ME 3024 (3)
  - Pre: ME 2004, ESM 2204, ESM 2304, & ENGL 1105 & 1106

### Junior: 2nd semester (12 cr + elective(s))
- **Heat & Mass Transfer**
  - ME 3304 (3)
  - Pre: ME 2134(C-), ME 3414, ME 2004(C-), & MATH 2214
- **Discourse**
  - ME 3634 (1)
  - Pre: ESM 2204 & ME 2004(C-), Co: ME 3024

### Senior: 1st semester (12 credits)
- **CAD Thermal/Fluid Design**
  - **ME 4124 (3)**
  - Pre: ME 2134(C-), ME 3414, & ME 3304

### Senior: 2nd semester (9 cr + elective(s))
- **Senior Capstone Design**
  - **ME 4015 (3)**
  - Pre: ME 4015
  - (continuation of same ME 4015 project from 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 ME 2004 & ME 2134 to meet prerequisite & graduation requirements.
- **Required senior courses are offered only once per year; ME 4015 & ME 4016 must be taken in order during the same academic year, beginning in Fall.**
### Co-op Schedule with First Work Term Spring of Second Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Sophomore 1</td>
<td>Work</td>
<td>Work</td>
</tr>
<tr>
<td>3</td>
<td>Sophomore 2</td>
<td>Junior 1</td>
<td>Work</td>
</tr>
<tr>
<td>4</td>
<td>Junior 2</td>
<td>Junior 3</td>
<td>Open</td>
</tr>
<tr>
<td>5</td>
<td>Senior 1</td>
<td>Senior 2</td>
<td></td>
</tr>
</tbody>
</table>

### Co-op Schedule with First Work Term Summer of Second Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Sophomore 1</td>
<td>Sophomore 2</td>
<td>Work</td>
</tr>
<tr>
<td>3</td>
<td>Work</td>
<td>Junior 1</td>
<td>Work</td>
</tr>
<tr>
<td>4</td>
<td>Junior 2</td>
<td>Junior 3</td>
<td>Open</td>
</tr>
<tr>
<td>5</td>
<td>Senior 1</td>
<td>Senior 2</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Sophomore 1</td>
<td>Sophomore 2</td>
<td>Work</td>
</tr>
<tr>
<td>3</td>
<td>Junior 1</td>
<td>Work</td>
<td>Work</td>
</tr>
<tr>
<td>4</td>
<td>Junior 2</td>
<td>Junior 3</td>
<td>Open</td>
</tr>
<tr>
<td>5</td>
<td>Senior 1</td>
<td>Senior 2</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Sophomore 1</td>
<td>Sophomore 2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Junior 1</td>
<td>Junior 2</td>
<td>Work</td>
</tr>
<tr>
<td>4</td>
<td>Work</td>
<td>Junior 3</td>
<td>Work</td>
</tr>
<tr>
<td>5</td>
<td>Senior 1</td>
<td>Senior 2</td>
<td></td>
</tr>
</tbody>
</table>

**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!