**Engineering One - Planning Sequence for Math, Physics, and Chemistry Requirements**

This diagram illustrates math, physics and chemistry course sequences required for Engineering One. Careful consideration for these dependencies can prevent the need for extra courses that could increase the amount of time needed to earn a bachelor of engineering. These sequences are defined by the Faculty of Science, not the Faculty of Engineering & Applied Science. In the event of conflicting information, the Faculty of Science criteria will apply.

<table>
<thead>
<tr>
<th>HIGH SCHOOL Qualifying Courses</th>
<th>FACULTY OF SCIENCE Prerequisite Courses</th>
<th>FACULTY OF ENGINEERING Required Math, Physics, and Chemistry Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH</td>
<td>MATH 1090 Algebra &amp; Trigonometry</td>
<td>MATH 1000 Calculus I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MATH 1001 Calculus II</td>
</tr>
<tr>
<td>PHYSICS</td>
<td>PHYS 1020 Intro to Physics I at least 65%</td>
<td>PHYS 1050 General Physics I (Prerequisite MATH 1000, which may be taken concurrently)</td>
</tr>
<tr>
<td>CHEM</td>
<td>CHEM 1010 Into to Chemistry at least 60%</td>
<td>CHEM 1050 General Chemistry I (Prerequisite MATH 1000, which may be taken concurrently)</td>
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<tr>
<td>CHEM 3202 with at least 75%</td>
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</table>

**MATH 1000** is the first in the Engineering One math sequence. Eligibility for MATH 1000 is required for admission to Engineering. Students may register for MATH 1000 if they meet one of the following.

- Successful completion of Math 3200 in high school with a score of 75 or greater
- Successful completion of Math 3200 in high school plus a MPT score of 75 or greater
- Successful completion of MATH 1090 Algebra & Trigonometry

Students can obtain credit for MATH 1000 and go directly to **MATH 1001** with successful completion for Math 3208 and a passing grade in the CPT.

**CHEM 1050** is the only required chemistry course in the Engineering One. Students may register for CHEM 1050 if they meet one of the following.

- Successful completion of high school chemistry with grade ≥75
- Successful completion of CHEM 1010 with a grade ≥60

CHEM 1050 requires MATH 1000, which may be taken concurrently.*

Successful completion of CHEM 1010, CHEM 1011, and CHEM 1031 is acceptable in lieu of CHEM 1050.

**PHYS 1050** is normally the first physics course taken by engineering students. This course is designed for those who successfully completed high school physics or for those with a strong background in math if they haven't previously taken high school physics.

PHYS 1050 requires MATH 1000, which may be taken concurrently.*

**PHYS 1051** is normally the second in the Engineering One physics sequence. Students may proceed directly to PHYS 1051 if they meet one of the following.

- Successful completion of PHYS 1050 (strongly recommended)
- Successful completion of PHYS 1020 with grade ≥65 and MATH 1000

PHYS 1051 requires MATH 1001, which may be taken concurrently.*

* During registration, students should select the associated Math course first if it is to be taken concurrently.

If your specific situation is not represented, contact the Office of Undergraduate Studies in the Faculty of Engineering and Applied Science for advice.