

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.

	HIGH SCHOOL Qualifying Courses	FACULTY OF SCIENCE Prerequisite Courses	FACULTY OF ENGINEERING Required Math, Physics & Chemistry Courses
MATH		MATH 1090 Algebra & Trigonometry	
	Math 3205 (plus MPT $\geq 75\%$)		MATH 1000 Calculus I
	Math 3204 (plus MPT $\geq 85\%$)		MATH 1001 Calculus II
PHYSICS			MATH 2050 Linear Algebra
		PHYS 1020 Intro to Physics I (grade $\geq 65\%$ plus MATH 1000)	PHYS 1050 General Physics I (Completion of, or concurrent registration in, MATH 1000)
CHEM	G12 Chemistry (grade ≥ 75)		PHYS 1051 General Physics I
		CHEM 1010 Intro to Chemistry (grade $\geq 60\%$)	CHEM 1050 General Chemistry I (Completion of, or concurrent registration in, MATH 1000)

COURSE PLANNING GUIDELINES:

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 3205 in high school plus a MPT score of 75 or greater
- ✓ Successful completion of Math 3204 in high school plus a MPT score of 85 or greater
- ✓ Successful completion of MATH 1090 Algebra & Trigonometry

*MATH 2050 requires MATH 1001, which may be taken concurrently. **

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.