

Engineering Course Placement Guidelines

Your academic advisor will consider the following placement guidelines when preparing your Individualized Recommendations Document (IRD) for your first semester in the College of Engineering. The IRD will be uploaded to MyUI 3-5 days prior to your SOAR appointment.

Math Course Placement

ALEKS Math Placement Exam

The table below shows the math course in which you are eligible to enroll based on your ALEKS score. These scores are binding – you will not be able to remain enrolled in a course for which you do not have the proper score/credit.

If you don't think your ALEKS score is accurate or if you didn't take the ALEKS under ideal circumstances, you can [retake the ALEKS test](#). Review the modules in advance and plan for about one and a half hours for the retest. You may take the ALEKS up to five times total. Many students will find their score increase after reviewing the ALEKS modules and retaking the placement test.

Score	Minimum Score Required for Placement in:	Note that while courses below MATH:1550 will not meet the requirements for an engineering degree, they provide a critical foundation for success in the required courses. Taking foundational courses may increase the time to graduation depending on a student's individual situation.
1-29%	MATH:0100 Basic Algebra I (3 SH)	
30%	MATH:1005 College Algebra (4 SH)	
55%	MATH:1010 Trigonometry (3 SH)	
60%	MATH:1020 Elementary Functions (4 SH)	
75% or higher	MATH:1550 Engineering Math I: Single Variable Calculus (4 SH)	

Advanced Math Placement Test (AMPT)

If you took a year or more of Calculus in high school or have college credit for Calculus, you should take the AMPT.

Score	Placement Recommendation:
0-8	Take the ALEKS placement test OR if you feel your first score is inaccurate, retake the AMPT. Students may repeat the Advanced Math Placement Test once without special permission. If additional attempts are needed, students should email Amanda Marr or the ITS Help Desk .
9-14	MATH:1550 Engineering Math I: Single Variable Calculus (4 SH)
15-20	MATH:1560 Engineering Math II: Multivariable Calculus (4SH) Regardless of placement score, you will only be eligible to enroll in Engineering Math II if you have college credit for Calculus I with a grade of A or B.

Advanced Placement (AP) Math Credits

The AP scores below award credit for these required math courses:

AP Exam	Score	Receive UI Credit for:	Placement Recommendation:
Calculus AB	4-5	MATH:1550 Engineering Mathematics I (4 SH)	MATH:1560 Engineering Math II: Multivariable Calculus (4 SH)
Calculus BC	4-5 OR 4-5 on AB subscore	MATH:1550 Engineering Mathematics I (4 SH)	MATH:1560 Engineering Math II: Multivariable Calculus (4 SH)

Science Course Placement

Chemistry

Biomedical, Chemical and Environmental Engineering majors should take chemistry before physics.

All engineering students are required to take the [Chemistry Placement Test \(CPT\)](#) to determine their best starting point in chemistry courses. For automatic approval to register for **CHEM:1110, Principles of Chemistry I** (4 SH) you will need:

- Mathematics background including ALEKS score above 55%, AMPT score of 9 or higher, MATH:1005 College Algebra (or higher-level math course) with a minimum grade of C-.
- A score of 16 or greater on the Chemistry Placement Test (scores range from 0 to 30) or an AP Chemistry score of 4.

Based on your placement score and high school chemistry preparation, your advisor may recommend that you enroll in **CHEM:1070 General Chemistry I** (3 SH) course. Note that while it will not meet the requirements for an engineering degree, this course provides a critical foundation in the subject matter and will prepare you for success in the required CHEM:1110 course.

Physics

Since **PHYS:1611 Introductory Physics I** (4 SH) is a calculus-based course, you must be co-enrolled in MATH:1550 Engineering Math I or a more advanced math course in the same semester.

Advanced Placement (AP) Science Credits

The AP scores below award credit for these required science courses:

AP Exam	Score	Receive UI Credit for:
Chemistry	5	CHEM:1110 Principles of Chemistry I (4 SH)
Physics C (Mechanics)	4-5	PHYS:1611 Introductory Physics I (4 SH)
Physics C (Electricity and Magnetism)	4-5	PHYS:1612 Introductory Physics II (4 SH)

Engineering Course Placement

All incoming engineering students are required to complete **ENGR:1100, Introduction to Engineering Problem Solving** (3 SH). Please note this course is only offered in fall semesters - if you start at the UI in the spring semester, you will enroll in the course the following fall. Computer Science & Engineering students will also enroll in **ENGR:1300, Introduction to Engineering Computing** (3 SH) in their first semester.

If you took a Project Lead the Way (PLTW) course in high school that you believe granted you college-level credit, please request the **college** transcript be sent directly to the University of Iowa; your high school transcript will not be sufficient to verify your credit. If you receive credit, your academic advisor will make an individualized recommendation for an alternative course.

Rhetoric Course Placement

All students at the University of Iowa are required to complete **RHET:1030, Rhetoric** (4 SH), which is a writing, speaking, and reading course.

Certain college courses in composition and/or speech or oral communication at other institutions may award you partial credit for UI's Rhetoric requirement. Please request the college or university transcript be sent directly to the University of Iowa; your high school transcript will not be sufficient to verify these credits. Once your academic advisor reviews your transcripts, they will make an individualized recommendation to fulfill your Rhetoric requirement:

If you received college credit for a speech course, enroll in **RHET:1040, Writing and Reading** (3 SH).

If you received college credit for two composition courses, enroll in **RHET:1060, Speaking and Reading** (3 SH).