
Undeclared Majors in SCSE

Many students enter college unsure of their major; however, undeclared students who apply to the Swenson College of Science and Engineering (SCSE) know that they are interested in math and science and they usually performed well in these subjects in high school. Review the back of this sheet for information about majors offered by SCSE. Sample plans for each major are available to help you determine the courses required for any majors of interest to you.

Here are some course suggestions for *Undeclared* students in the Swenson College of Science and Engineering:

1. **Writing:** WRIT 1120 is required of all students at UMD. No matter what your major is, you will need this course (or its equivalent) to meet UMD degree requirements. Students typically take this course during the fall or spring semester of their first year in college.
2. **Mathematics:** Because all programs in SCSE require mathematics, it is recommended that during fall semester undeclared students register for the math course designated by their Math Placement Level (Math Placement Level is determined by ACT Math score.) The first math course is usually one of the following:
 - Math 1005 College Algebra (5 credits)
 - Math 1250 Pre-Calculus Analysis (4 credits)
 - Math 1296 Calculus I (5 credits)

Staying "on-track" in math is very important for SCSE majors. Undeclared students can begin their math sequence and know that their math will apply to any major in the college.

Students who have already earned college credit for Calculus I may take math courses that are more advanced. Your advisor can help you determine the best course for you if this is the case.

Students with less math background may begin studies with SSP 0103 Basic Math & Introduction to Algebra their first semester, followed by Math 1005, then Math 1250, then Math 1296 in subsequent semesters. Summer school can help students who take review courses their first year catch up in math.

3. **Science:** Most undeclared SCSE students take at least one of the following courses during the fall semester of their first year of college. Taking one of these courses is an excellent way to explore SCSE disciplines and can help you decide if you want to go further in a particular field. All of these courses also apply to the UMD Liberal Education program, so even if you decide not to continue in the subject, you know that the course "counts" towards a degree requirement.

Biol 1011	General Biology I, 5 cr	Cat 4 Lib Ed	(prereq: one year high school chemistry)
Chem 1151	General Chemistry I, 5 cr	Cat 4 Lib Ed	(prereq: 1 yr HS chemistry, College Algebra or Math ACT ≥ 21)
CS 1511	Computer Science I, 5 cr	Cat 3 Lib Ed	(prereq: 3 1/2 years high school math)
Geol 1110	Geology & Earth Systems, 4 cr	Cat 4 Lib Ed	

Please note: SCSE freshmen are *not* required to take the above courses in their first semester. These courses are very demanding and students do well in them only if they are prepared to dedicate many hours of study to the subject. Some SCSE students - both declared and undeclared - delay the beginning of their science sequences until spring semester or later. **If you are not sure that a math, engineering or science major is right for you**, you may decide to explore subjects outside of science by pursuing courses that are part of the UMD Liberal Education Program.

4. **Liberal Education:** Students wishing to explore many subjects, or those wanting a mix of liberal arts subjects with their math and science, should look at Categories 6, 7, 8, 9 and 10 of the Liberal Education Program (LEP). All students seeking a degree from UMD are required to complete the LEP. These courses offer a good variety of topics in the social sciences, behavioral sciences, humanities, arts, and letters.

Swenson College of Science and Engineering Majors

Bachelor of Science (B.S.) Degrees:

Biochemistry & Molecular Biology
Biology
Cell & Molecular Biology
Chemistry
Computer Science
Computer Information Systems
Environmental Science
Geological Sciences
Mathematics
Statistics & Actuarial Science
Physics
Applied Physics

Engineering Degrees:

Bachelor of Science in Chemical Engineering (B.S.Ch.E.)
Bachelor of Science in Civil Engineering (B.S.C.E.)
Bachelor of Science in Electrical and Computer Engineering (B.S.E.C.E.)
Bachelor of Science in Industrial Engineering (B.S.I.E.)
Bachelor of Science in Mechanical Engineering (B.S.M.E.)

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