

FOUNDATIONAL ENGINEERING AND COMPUTING PROGRAM

Entering freshmen desiring to study engineering or computer science are admitted to the Foundational Engineering and Computing Program. They may state a preference for a major in a particular engineering or computer science field if they wish. In the event a preference is stated, it will be used in the consideration for freshmen scholarships, if available, in the preferred department.

The goals of the Foundational Engineering and Computing Program are:

1. to provide high quality advising in order to enhance the likelihood of student academic success, and
2. to provide information about careers in the various engineering fields so that students can make an informed decision regarding a major.

Students will complete a set of required courses common to all engineering fields and then may apply for admission as degree candidates to the program of their choice.

Typical Courses for Freshman Year

The following courses are typical freshman year academic requirements to all the engineering programs offered at Missouri S&T and are normally taken while the student is in the Foundational Engineering and Computing Program:

MATH 1214 & MATH 1215	Calculus For Engineers I and Calculus For Engineers II	8
CHEM 1310 & CHEM 1319 & CHEM 1100	General Chemistry I and General Chemistry Laboratory and Introduction To Laboratory Safety & Hazardous Materials	6
ENGLISH 1120	Exposition And Argumentation	3
Humanities/Social Sciences courses ¹		
FR ENG 1100	Study And Careers In Engineering and Computing	1
MECH ENG 1720	Introduction to Engineering Design or a department specific course	3
PHYSICS 1135	Engineering Physics I	4

Courses required in the remainder of each specific engineering program are listed under that program's description in the catalog.

¹ Students must receive credit prior to graduation for a course that fulfills the Williams law requirement (HISTORY 1200, HISTORY 1300, HISTORY 1310 or POL SCI 1200). Students planning to major in architectural engineering should take HISTORY 1200.

Students planning to major in ceramic engineering, chemical engineering, environmental engineering, geological engineering, metallurgical engineering or petroleum engineering will require additional chemistry or chemistry/geochemistry electives. It is recommended that, during the freshman year, these students should plan on taking CHEM 1320, GEOLOGY 3410, or other suggested courses as outlined in the curriculum of those specific majors.

Students planning to major in mining engineering should take GEO ENG 1150, MIN ENG 1912, and MIN ENG 2126 during their freshman year. Students planning to major in nuclear engineering should take NUC ENG 1105 during their freshman year.

Students may transfer from the Foundational Engineering and Computing Program to their selected degree program after having satisfied all of the above requirements, provided the degree programs will accept them.

Students are advised to check special program requirements as listed with the program curricula in the catalog.

FR ENG 1100 Study And Careers In Engineering and Computing (LEC 1.0)
Examination of engineering and computer science degree programs available at Missouri S&T and career opportunities. Introduction to non-engineering majors and minors at Missouri S&T. Academic, professional and ethical expectations of the student and professionals. Introduction to campus facilities and resources for assisting in student success.