

Chemistry Pre-Medicine

Students may be a part of the pre-med program at Missouri University of Science and Technology within any academic discipline, although the most common disciplines are chemistry, biological sciences, and chemical engineering. Missouri S&T's Pre-Medical Advisory Committee, consisting of faculty from a number of academic departments, helps students meet the requirements for medical school admission. In general, these requirements are a B.S. or B.A. degree which includes the following: one year of basic chemistry (inorganic), one year of organic chemistry (with lab), a minimum of one year of biological sciences-related courses (some require two years), one year of physics, a minimum of algebra and trigonometry (some require calculus), and a good background in humanities and social sciences (with emphasis on good oral and written communication skills). Evidence of ability and desire to work with people AND evidence of some work experience in a hospital or clinical setting are also very important. A particular medical school may have a slight variation on these requirements; a pre-med student who has a desire to attend a particular medical school should ask the Pre-Medical Advisory Committee for help in determining those exact requirements.

After completing these basic requirements, pre-med students take the MCAT (Medical College Admission Test), usually during the junior year. This entrance exam may be repeated. Once a student receives MCAT scores, he/she schedules an interview before the Pre-Medical Advisory Committee. This committee evaluates the student's credentials, offers helpful suggestions, and prepares a group recommendation which will be sent to all medical schools where the student plans to apply.

Missouri S&T degree programs such as Chemistry, Biochemistry (an emphasis area in the Chemistry Department), Biological Sciences, and Biochemical Engineering (an emphasis area in the Chemical and Biological Engineering Department) allow a student to fulfill the requirements for medical school admission within the structure of the degree program. Pre-med students desiring to major in other programs here at Missouri S&T may use elective hours for the requirements not covered in these programs (organic chemistry and biological sciences courses, for example). Close contact with the Pre-Medical Advisory Committee is highly recommended to insure that all academic and other requirements are met.

**For further information, see <http://biosci.mst.edu/pre-professionalprograms/pre-med.html>
or feel free to contact us at 1-877-632-2436
(1-877-MD2-CHEM).**

Chemistry Pre-Medicine Curriculum

B.S. Degree American Chemical Society Certified Pre-Medicine Emphasis Area

Chem 1-General Chemistry	4
Chem 2-General Chemistry Lab	1
Chem 4-Intro Lab Safety & Hazardous Materials ...	1
Chem 3-General Chemistry	3
Chem 8-Qualitative Analysis	2
Chem 11-Intro to Chemistry	1
Chem 221-Organic Chemistry I.....	4
Chem 226-Organic Chemistry I Lab.....	1
Chem 223-Organic Chemistry II	4
Chem 228-Organic Chemistry II Lab	1
Chem 237-Inorganic Chemistry.....	3
Chem 238-Inorganic Chemistry Lab	1
Chem 151-Analytical Chemistry I.....	4
Chem 241-Physical Chemistry.....	3
Chem 242-Physical Chemistry Lab	1
Chem 243-Physical Chemistry	3
Chem 244-Physical Chemistry Lab	1
Chem 251-Analytical Chemistry II.....	4
Chem 328-Organic Synthesis & Spec. Analysis.....	3
Chem 343-Intro to Quantum Chemistry	3
Chem 361-Biochemistry	3
Chem 362-Biochemistry Lab.....	2
Chem 363-Intermediary Metabolism.....	3
Advanced Chemistry Electives	2
Chem 310 or 390-Undergraduate Seminar or Research.....	2
Biological Sciences 110-General Biology	3
Biological Sciences 112-General Biology Lab.....	2
Biological Sciences 211-Cellular Biology.....	4
Biological Sciences 241-Human Anatomy.....	5
Biological Sciences 242-Human Physiology.....	5

Math 8-Calculus w/Analytic Geometry I.....	5
Math 21-Calculus w/Analytic Geometry II	5
Math 22-Calculus w/Analytic Geometry III	4
Computer Science 53 or 74 & 78-Intro to Programming.....	3
Statistics 213-Applied Engineering Statistics.....	3
Physics 21-General Physics I.....	4
Physics 22-General Physics Lab.....	1
Physics 25-General Physics II	4
Physics 26-General Physics Lab.....	1
English 20-Exposition and Argumentation.....	3
English 60-Writing & Research.....	3
History 112, 175, 176, or Political Science 90	3
Social Science Electives	6
Humanities Electives	6
Literature Elective.....	3
Total Credits.....	133

Grade Requirements: A minimum grade of “C” is required for each Chemistry course counted towards the degree.

ROTC: Basic ROTC may be taken in the freshman and sophomore years, but is not countable towards a degree.

Chemistry Electives: The advanced Chemistry Elective is chosen from Chem 321, 331, 346, 351, 381, 385.

Electives: At least three hours of the humanities or literature electives are to be at the 100 level or higher.