Pre-professional Programs

Students at the University of Missouri-St. Louis may develop pre-professional study plans in either law or the health professions. With early and careful advising, students may develop an appropriate plan to prepare for their intended professional study.

Students should meet with pre-professional advisors in their interest area early in their academic careers to ensure development of sound, comprehensive study plans that aim to fulfill the admission requirements of the professional program to which they wish to apply. It is the student's responsibility to coordinate their plan of study with their intended graduate/pre-professional programs.

The following information on pre-professional study at UMSL is provided to give students minimal guidelines and assistance in planning a program.

For advising and information, contact the Marcus Allen Advising Center in the College of Arts and Sciences, 303 Lucas Hall, 314-516-5501

Pre-Law

Pre-law students at UMSL come from a variety of majors, including Art History, Criminal Justice, Economics, English, History, Philosophy, Political Science, and many more. Many of these majors offer pre-law tracks or minors, and you can identify yourself as a pre-law student at any time during your career at UMSL. The Pre-Law Committee of the American Bar Association (ABA) advises that a wide range of undergraduate majors can serve as a path to law school:

> The ABA does not recommend any undergraduate majors or group of courses to prepare for a legal education. Students are admitted to law school from almost every academic discipline. You may choose to major in subjects that are considered to be traditional preparation for law school, such as history, English, philosophy, political science, economics or business, or you may focus your undergraduate studies in areas as diverse as art, music, science and mathematics, computer science, engineering, nursing or education. Whatever major you select, you are encouraged to pursue an area of study that interests and challenges you, while taking advantage of opportunities to develop your research and writing skills. Taking a broad range of difficult courses from demanding instructors is excellent preparation for legal education. (Source: the American Bar Association (http://www.americanbar.org/groups/legal_education/resources/pre_law.html))

After graduating from UMSL, students have gone on to attend law school locally at Saint Louis University, Washington University in St Louis, as well as at the University of Missouri-Columbia and University of Missouri-Kansas City. Graduates attend prestigious law schools outside the St Louis area as well.

There are hundreds of UMSL graduates who have gone to law school and now work as lawyers, judges, or in other careers in the legal profession. Many of them remain in the St Louis area, and the pre-law program at UMSL regularly brings them to campus to interact and share advice with students. By declaring yourself to be pre-law, you will receive updates about upcoming events and opportunities to meet and connect with alumni in the legal profession.

The pre-law advisor can assist you in selecting courses that will best meet your interests while also allowing you to develop the skills that are important for a successful law school application. For more information, please refer to the UMSL pre-law advising website.

Pre-Health Sciences

The University of Missouri - St. Louis provides advising for students planning to continue their studies to become healthcare professionals. While there are no pre-health majors, most of the prerequisite classes necessary for entry into health professions schools are offered in both the Fall and Spring Semesters with some being offered in the Summer as well. This allows students to complete any major offered by UMSL while pursuing their desired pre-health goals. For more information on pre-health, please go to: https://www.umsl.edu/divisions/artscience/advising/prehealth/index.html

Pre-requisite coursework varies depending on the professional program you choose. In addition to the courses listed below, students should actively seek out extracurricular opportunities. Such activities can include volunteering, shadowing, research, and organizational leadership. Students are encouraged to join some of the many on-campus organizations including one of the pre-health societies. Information about student organizations can be found at the Office of Student Involvement

Suggested Courses

Common pre-requisite courses include:

Biology		
BIOL 1831	Introductory Biology: From Molecules to Organisms (MOTR BIOL 150L)	5
BIOL 1821	Introductory Biology: Organisms and the Environment (MOTR BIOL 150LEC)	5
BIOL 2012	Genetics	3
BIOL 2482	Microbiology	3
BIOL 3622	Cell Biology	3
BIOL 1131	Human Physiology and Anatomy I	4
BIOL 1141	Human Physiology and Anatomy II	4
Chemistry		
CHEM 1111	Introductory Chemistry I (MOTR CHEM 150L)	5
CHEM 1121	Introductory Chemistry II	5
CHEM 2612	Organic Chemistry I	3
CHEM 2622	Organic Chemistry II	3
CHEM 2633	Organic Chemistry Laboratory	2
CHEM 4712	Biochemistry	3
Mathematics		
Select courses at least through calculus, as appropriate for the major degree. [2]		
MATH 1100	Basic Calculus	3-5
or MATH 1800	Analytic Geometry and Calculus I	
MATH 1320	Introduction to Probability and Statistics	3
Physics		
As appropriate for the degree chosen: [2]		8-10

PHYSICS 1011, PHYSICS 1011L, PHYSICS 1012 and PHYSICS 1012L		8
or		
PHYSICS 2111 & PHYSICS 2112	Physics: Mechanics and Heat (MOTR PHYS 200L) and Physics: Electricity, Magnetism, and Optics	8

Successful completion of these recommended courses helps students prepare for required standardized exams. Students should take the required national standardized examination early in their junior year as is appropriate for the exam: The Medical College Admission Test (MCAT) for Pre-Med students; the Dental Aptitude Test (DAT) for Pre-Dental students; the Optometry Admission Test (OAT) for Pre-Optometry students; and the Pharmacy College Admission Test (PCAT), (if required) for Pre-Pharmacy students; and the Graduate Record Exam (GRE) is generally sufficient for other professional healthcare school. (Students should consult with their intended professional school for appropriate test information.)

Each year the number of applicants to health profession schools far exceeds the number of available places. Students should meet with Career Services and the various campus advising resources available to students to explore alternative plans should they not be accepted.

Pre-Optometry

4+4 Program

The University of Missouri-St. Louis offers a four-year graduate program of study leading to the Doctor of Optometry degree; this professional degree is administered by the College of Optometry. It is one of only 20 schools or colleges of optometry in the United States and the only one in the state of Missouri. This program, as a result, makes UMSL an ideal institution for Pre-Optometry education. Various programs are available for Pre-Optometry students as noted below.

Students may pursue a traditional 4 + 4 program, which is a bachelor's degree followed by the four-year graduate optometry program. In this case, students may pursue any bachelor's degree, as long as the pre-optometry requirements are met.

3+4 Program

Alternatively, the College of Arts & Sciences sponsors a 3+4 program in which the undergraduate degree is granted when the student satisfactorily completes the first semester of the professional program and has met all of the conditions for the specific undergraduate degree for which the student has applied. The program is intended for students who enter as Freshman.

Students interested in this program must apply to the College of Optometry and maintain a G.P.A. of 3.2. Some summer classes may be expected, and the student should be prepared to take the OAT by the end of their sophomore year.

For more information on admission requirements for the College of Optometry, please refer to the Optometry section of this Bulletin.

Sample 3+4 Biology BS UMSL College of Optometry Plan of Study

*this plan assumes that a student has tested into MATH 1100.

Freshman

Fall	Hours	Spring	Hours
INTDSC 1003	1	BIOL 1831	5
ENGL 1100	3	CHEM 1121	5
MATH 1100	3	COMM 1040	3
CHEM 1111	5	EXPLORE - Humanities and Fine Arts	3
CORE - US History and Government	3	---	
Activities: Get involved in student organizations, Start researching professionals to shadow. Volunteer/ community service		Activities: Get to know faculty so that you can start inquiring about research opportunities. Volunteer/Community Service	
	15		**16**

Sophomore

Fall	Hours	Spring	Hours
BIOL 1821	5	PHYSICS 1012	3
CHEM 2612	3	PHYSICS 1012L	1
PHYSICS 1011	3	BIOL 2012	3
PHYSICS 1011L	1	CHEM 2622	3
BIOL 2482	3	BIOL Elective	
BIOL 2483	2	EXPLORE - Social Sciences (PSYCH 1003 recommended)	3
Activities: Patient experience exposure, shadowing, community service / volunteer		Take OAT over the Summer	
	17		**13**

Junior

Fall	Hours	Spring	Hours	Summer	Hours
BIOL 3302	3	BIOL 4889	2	BIOL 3622	3
BIOL Elective	3	PHIL 2254	3	PHIL 2256	3
BIOL Lab	2	EXPLORE - Humanities and Fine Arts	3		
CHEM 2633	2	EXPLORE - Social Sciences	3		
MATH 1320	3	EXPLORE - Social Sciences (Cultural Diversity)	3		
ENGL 3160	3				
	16		**14**		**6**

Senior

Fall	Hours
Course that count toward the BS in Biology	
OPTOM 8010	5
OPTOM 8040	4
OPTOM 8050	2
OPTOM 8060	2
OPTOM 8110	4
	17

Total Hours: 114