

Biological Sciences

BS – Pre-Professional Zoology (Pre-Med)

Suggested Course Outline

Freshman

*General Zoology & Lab	04-114/115	4	General Botany & Lab	04-112/113	4
**Composition	10-111	3	Composition	10-112	3
***General Chemistry I & Lab	24-114/115	4	General Chemistry II & Lab	24-116/117	5
**College Algebra	17-118	3	<u>General Geography</u>	<u>27-101</u>	<u>3</u>
<u>Freshman Seminar</u>		<u>1</u>	<u>Total</u>		<u>15</u>
Total		15			

Sophomore

Microbiology	04-140	4	Genetics	04-350	3
Medical Terminology	04-104	3	Physics II & Lab	25-112/113	4
Physics I & Lab	25-110/111	4	Intro to Literature	10-220	3
*Fundamentals of Oral Comm	29-102	3	Philosophy or Ethics	39-171 OR 39-274	3
<u>Fine Arts</u>		<u>3</u>	<u>Total</u>		<u>13</u>
Total		17			

Junior

Comparative Anatomy	04-322	4	Human Physiology	04-436	4
Cell Biology	04-310	4	Organic Chemistry II/Lab	24-344/345	5
Organic Chemistry I/Lab	24-342/343	5	General Psychology	08-103	3
<u>Institutional Requirement</u>		<u>3</u>	<u>Institutional Requirement</u>		<u>3</u>
Total		16	Total		15

Senior

Elective		2-4	Immunology	04-444	4
America – A Historical Survey	33-155	3	Biological Science Seminar	04-491	1
Intro to American Government	34-103	3	Humanities/Philosophy		3
<u>Biochemistry</u>	<u>24-562</u>	<u>3</u>	<u>Elective</u>		<u>3</u>
Total		11-13	<u>Vertebrate Histology</u>	<u>04-418</u>	<u>4</u>
			Total		15

*Biology 04-102/103 may be substituted for another biology course if one has taken 2 years of high school biology.

**Must be taken in the first 60 hours of coursework at Northwest.

***If one has not taken a substantial high school chemistry course, Chemistry 112/113 should be taken first. Need to have mastered Algebra II in high school.

Note: Professional schools vary in their pre-requisites for admission. Some require calculus, some require statistics and so on. Be sure to determine the requirements for each school to which you plan to apply in the appropriate reference book.

Admission to medical school is based on grade point average, score on the Medical College Admissions Test (MCAT), letters of recommendation, personal interview and insight into the profession.

The average grade point of accepted applicants from Missouri for medical school is about 3.74 on a 4.0 scale. This indicates that some individual averages are higher and some averages are lower. In the last three years, however, the number of applicants has dramatically increased so a higher average might be necessary.

The MCAT is composed of three sections: Verbal Reasoning, Biological Sciences, and Physical Sciences. There is also an essay component. The average student from Missouri that is accepted has a score of 10/15 on all three sections and a strong essay score. This has usually placed them in the top 33% of all students taking the exam.

Letters of recommendations are usually required from faculty from whom you have had classes or from a Pre-Med Advisory board if one exists.

During the personal interview the interviewers are looking at factors such as maturity, poise, knowledge of current events (including those related to biology/medicine), leadership skills and community involvement. Usually, specific answers to questions are not looked at per se, but rather has one thought about the subject and arrived at a reasonable position that can be supported.

The more insight one has into the medical profession the better. One needs to know emotionally, as well as intellectually, what the profession of medicine is about, other than as a patient.

Medical schools encourage prospective applicants to major in a field of study of their interest. The minimal requirements for admission include 2 to 4 biology courses, 4 chemistry courses (2 semesters of inorganic, 2 semesters of organic), 2 semesters of non-calculus based physics, and math courses ranging from College Algebra to Calculus or a computer science or statistics course.

At Northwest, we have a focused program for pre-professional students who choose to major in biology.

(Please note this outline does not supersede the requirements listed in the Northwest Undergraduate Student Catalog nor does it constitute a contractual arrangement, rather it is for information only. It is the student's responsibility to be aware of and to meet all University and Department requirements as listed in the catalog.

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