

# Pre-Pharmacy, B.A. Degree in Biology with Emphasis in Health and Medical Sciences

## Minnesota State University Moorhead

<http://www.mnstate.edu/jasperse/PrePharmacy/Pharmacy.html>

The following is a sample schedule for both completing pre-pharmacy requirements while also satisfying the requirements to graduate with a B.A. Degree in Biology with Emphasis in Health and Medical Sciences.

- The schedule is sufficiently general to cover the requirements of most all pharmacy schools.
- Many of the science classes are offered only in the fall or the spring, and many of these need to be taken in correct sequence in order to satisfy prerequisites.
- Exceptional students might take the PCAT (pharmacy college admissions test) during/before their junior year, and might be able to be admitted into pharmacy school after their junior year.

FALL		FRESHMAN YEAR		DC
Biol	115	Organismal Biology (lab)	4	4IL
Chem	150	Gen Chem I (lab)	4	4IL
Engl	101	English Composition	4	1B
CMST	100	Speech Communication	3	1A
Hlth	122	Personal Health/Wellness	1	
Total Credits			16	

SPRING		DC
Biol	111 Cell Biology (lab)	4
Chem	210 Gen Chem II	4
Math	142 Precalculus <sup>1</sup>	4 3
Phil	110 Practical Reasoning	3 2
Total Credits		15

FALL		SOPHOMORE YEAR	
Chem	350	Organic Chem I	3
Chem	355	Organic Chem Lab I	1
Biol	323	Human Anatomy (lab)	4
Phys	160	Physics I	4 4I
		Electives	3
Total Credits		15	

SPRING	
Chem	360 Organic Chem II 3
Chem	365 Organic Chem Lab II 1
Biol	349 Human Physiology (lab) 4
Phys	161 Physics II <sup>2</sup> 4
Electives 3	
Total Credits 15	

FALL		JUNIOR YEAR	
Chem	400	Biochemistry I	3
Chem	405	Biochemistry I Lab	1
Biol	341	Genetics (lab)	4
Biol	350	Microbiology (lab)	4
		Elective	3
Total Credits		15	

SPRING	
Chem	410 Biochemistry II 3
Chem	415 Biochemistry II Lab 1
Math	261 Calculus I 4 3M
Engl	387 Tech Report Writing 4
Elective 3	
Total Credits 15	

FALL		SENIOR YEAR	
Biol	385	Molecular Biology	3
Biol	385L	Molecular Biology Lab	1
Math	262	Calculus II <sup>3</sup>	4
		Elective	4
		Elective	3
Total Credits		15	

SPRING	
Biol	484 Biology Seminar 1
Elective 4	
Elective 4	
Elective 3	
Elective 3	
Total Credits 15	

<sup>1</sup> Mathematics placement exam is needed to inform whether a student should begin directly in calculus, precalculus, or college algebra.

<sup>2</sup> Physics II is required by UM but not by NDSU. It is needed for the Biology BA degree.

<sup>3</sup> Calculus II is required by NDSU but not by UM. It is needed for the Biology BA degree.