

## Biology: Pre-Dental Concentration

### Bismarck State College (AS) and University of Mary

<b>Freshman:</b>	<b>Fall</b>		<b>UMary Equivalent</b>
BIOL 150/150L	General Biology I/Lab (Math/Sci/Tech)	3/1	BIO 103/L
CHEM 121/121L	General Chemistry I/Lab (Math/Sci/Tech)	4/1	CHE 111/L
POLS 115	American Government (Soc Sci)	3	POL 101
ENGL 110	College Composition I (Comm)	3	ENG 111
BSC	Enrichment Course	2	Elective
	<b>Fall Credits</b>	<b>17</b>	
	<b>Spring</b>		
ENGL 120	College Composition II (Comm)	3	ENG 121
SOC 110	Introduction to Sociology (or other Diversity Elective)	3	SOC 107
COMM 110	Fundamentals of Public Speaking (Comm)	3	COM 110
BIOL 151/151L	General Biology II/Lab (Math/Sci/Tech)	3/1	BIO 106/L
CHEM 122/122L	General Chemistry II/Lab (Math/Sci/Tech)	4/1	CHE 112/L
	<b>Spring Credits</b>	<b>18</b>	
	<b>Total Freshman Credits</b>	<b>35</b>	
<b>Sophomore:</b>	<b>Fall</b>		
PSYC 111	Introduction to Psychology (Soc Sci)	3	PSY 201
PHIL 210	Ethics (Arts & Humanities)	3	PHI 208
BIO 220/220L	Anatomy and Physiology I/Lab (Math/Sci/Tech)	3/1	BIO 207/L
CHEM 241/241L	Organic Chemistry I/Lab	4/1	CHE 217/L
	<b>Fall Credits</b>	<b>15</b>	
	<b>Spring</b>		
Elective	Elective Course	3	Elective
BIO 221/221L	Anatomy and Physiology II/Lab (Math/Sci/Tech)	3/1	BIO 208/L
RELS	RELS course (Arts & Humanities)	3	THE 120
MAT 165	Calculus I (Math/Sci/Tech)	3	MAT 209
	<b>Spring Credits</b>	<b>13</b>	
	<b>Total Sophomore Credits</b>	<b>28</b>	
	<b>Total BSC Credits</b>	<b>63</b>	<b>(62→UMary)</b>
<b>Junior:</b>	<b>Fall</b>		
HUM 322	Transfer Seminar	1	
BIO 311	Genetics	3/1	
PHY 203	Introduction to Physics	4	
BIO 309 or 314	Microbiology or Histology	4	
Elective	Elective	3	
	<b>Fall Credits</b>	<b>16</b>	
	<b>Spring</b>		
PHY 304	Intermediate Physics	4	
CHE 310	Biochemistry	4	
BIO 421 or BIO 318	Advanced Physiology or Immunology	3/1	
MAT Elective	MAT 204, 206, or 210	4	
	<b>Spring Credits</b>	<b>16</b>	
	<b>Total Junior Credits</b>	<b>29</b>	

<b>Senior:</b>	<b>Fall</b>		
BIO 309 or 314	Microbiology or Histology	4	
BIO 4XX	BIO Elective Environmental area	3/1	
BIO 323	Pre-dental Practicum	4	
Elective	Elective Courses	4	
	<b>Fall Credits</b>	<b>16</b>	
	<b>Spring</b>		
BIO 450	Evolution and the Integration of Knowledge	3	
BIO 354	Botany	3/1	
BIO 421 or BIO 318	Advanced Physiology or Immunology	3/1	
ENG 302	Classical and Contemporary Rhetoric	3	
CHE 318/L	Organic Chemistry II	4	
HUM 499	Senior Competences Assessment	0	
	<b>Spring Credits</b>	<b>18</b>	
	<b>Total Senior Credits</b>	<b>34</b>	
	<b>Total UMary Credits</b>	<b>63</b>	
	<b>Total Bachelor's Degree Credits</b>	<b>124</b>	

# Specific admission requirements vary by dental school. For this reason, it is essential that students contact the schools they are interested in attending early in their academic programs, and periodically thereafter, to be sure they include all required courses in their programs of study.

Note: Because some biology courses (e.g. Microbiology) are offered every other year, it is important for students to consider the rotation of courses in planning their programs of study to ensure they take these courses in the appropriate year.

**Biology Electives:** Students must take five biology electives selected from three major areas of study. Of the five, at least one course must be taken from each of the three areas. These electives are in addition to the required biology courses.

#### Organismal & Systematics Area

BIO 207	Human Anatomy and Physiology I	(Bio 207 & 208 together count as 1 elective)
BIO 208	Human Anatomy and Physiology II	
BIO 312	Parasitology	
BIO 330	Zoology	
BIO 421	Advanced Physiology	
BIO 339	Mammalogy	
BIO 333	Ornithology	

#### Cell and Molecular Area

BIO 309	Microbiology
BIO 310	Cell and Molecular Biology
BIO 314	Histology
BIO 318	Immunology and Serology
BIO 319 and 320	Hematology and Hematology Lab
BIO 417	Developmental Biology

#### Environmental Area

BIO 326	Environmental Biology
BIO 415	Conservation Biology
BIO 422	Principles of Ecology
BIO 423	Animal Behavior
BIO 433	Range Management
BIO 432	Wildlife Management