



DAKOTA STATE
UNIVERSITY

Plan of Study
Biology for Pre-Optometry
Catalog Year: 2022-2023

Sample Schedule: students are not limited to this plan; it is meant to serve as a guide for planning purposes in discussions with your academic advisor. This plan is one possible path to completing this degree in **four years**.

FIRST YEAR

First Semester

Course	Prerequisites / Comments	Credits	Semester Offered
BIOL 145-Intro to Sci. Inquiry		1	F
BIOL 151 General Biology I* and Lab		4	F
CHEM 112 General Chemistry I * and Lab	Math 114, 115, 129, 121, 123, 125 or 281	4	F
MATH 1XX College Algebra/Trigonometry/Calculus I	Placement reports determine	3-4	Varies
CSC 105 Intro to Computers		3	F,S,SU
Total Credit Hours		15-16	

Second Semester

Course	Prerequisites / Comments	Credits	Semester Offered
BIOL 153 General Biology II * and Lab		4	S
ENGL 101 Composition I*		3	F,S
CHEM 114 General Chemistry II*	CHEM 112 and Lab	4	S
Social Science (Psychology) **		3	F,S
CIS 123 Prob. Solving or CSC 150 Comp. Science I		3	F,S,SU
Total Credit Hours		17	

Second Year

Third Semester

Course	Prerequisites / Comments	Credits	Semester Offered
BIOL 331 Microbiology** and Lab	BIOL 151 and Lab	4	F
BIOL 280 Inquiry and Analysis in Biology and Lab	BIOL 151 and Lab or BIOL 153 and Lab	2	F
CHEM 326 Organic Chemistry I*	CHEM 114 and Lab	3	F
CHEM 326L Organic Chemistry I Lab*		1	F
Arts and Humanities		3	Varies
Social Science (Sociology)		3	F,SU
Total Credit Hours		16	

Fourth Semester

Course	Prerequisites / Comments	Credits	Semester Offered
BIOL 221 Human Anatomy** and Lab	BIOL 151 and Lab	4	S
CHEM 328 Organic Chemistry II*	CHEM 326 and Lab	3	S
CHEM 328L Organic Chemistry II Lab*		1	S
SPCM 101 Oral Communications*		3	F,S
MATH 281 Statistics**		3	F,S,SU
Total Credit Hours		15	

THIRD YEAR

Fifth Semester			
Course	Prerequisites / Comments	Credits	Semester Offered
BIOL 311 Ecology and Lab	BIOL 151 and Lab; or BIOL 153 and Lab	4	F Odd Years
BIOL 325 Physiology** and Lab	BIOL 151 and Lab; or BIOL 153 and Lab; or Biol 221 and Lab; or CHEM 112 and Lab	4	F
PHYS 211 University Physics I* and Lab	Math 123 or Math 125	4	F
ENGL 201 Composition II*	ENGL 101	3	F,S
Total Credit Hours		15	
Sixth Semester			
Course	Prerequisites / Comments	Credits	Semester Offered
BIOL 371 Genetics** and Lab	BIOL 101 and Lab; or Biol 151 and Lab	4	S Even Years
CHEM 460 Biochemistry** and Lab	CHEM 326 and Lab	3	S Even Years
BIOL Bioinformatics	BIOL 151 and Lab;	3	S Odd Years
PHYS 213 University Physics II* and Lab	MATH 123 and PHYS 211 and Lab	4	S
Arts and Humanities		3	Varies
Total Credit Hours		17	

FOURTH YEAR

Seventh Semester			
Course	Prerequisites / Comments	Credits	Semester Offered
BIOL 422 Immunology and Lab	BIOL 151 and Lab; and CHEM 112 and Lab	3	F Even Years
BIOL Elective		4	Varies
CHEM/EXS/PHYS Elective		3	Varies
Social Science		3	Varies
Total Credit Hours		13	
Eighth Semester			
Course	Prerequisites / Comments	Credits	Semester Offered
BIOL 343 Cell Molecular Biology** and Lab	BIOL 151 and Lab	4	S Odd Years
BIOL 498 Undergrad. Research	Consent of instructor	2	F,S,SU
BIOL/CHEM/EXS/PHYS Elective		4	Varies
BIOL 303 Intro to Biological Instrumentation	BIOL 151 and Lab; CSC 105	3	S Even Years
ENGL 379 Tech Communications	ENG 201	3	S
Total Credit Hours		16	

* Required for all optometry schools

** Required or recommended by many optometry schools

Information is subject to change. This is not a contract.

Semester: F = Fall; S = Spring; SU = Summer (online only)