

Saint Francis University Education and Biology Departments
Paradigm for Catalog Year 2024-2025

BIOLOGY/SECONDARY EDUCATION CONCENTRATION DRAFT

Biology 7-12

Suggested Course Sequence – 128 Total Credits Needed for Graduation

FIRST YEAR FALL			CREDITS	FIRST YEAR SPRING			CREDITS
CORE 103	Fall Community Enrichment Series	0		CORE 104	Spring Community Enrichment Series	0	
BIOL 131	Biology First Year Seminar	0		CORE I	Building the Foundation	3	
BIOL 110	Evolution, Ecol, & Plant Biol.	4		BIOL 111	Molecules, Cells, & Anim. Phys #NS	4	
CHEM 121	Chemistry Principles I	4		CHEM 122	Chemistry Principles II	4	
WRIT 102	Research Writing	3		FTAE 105	Intro to Franciscan Theology	3	
HIST xxx	History	3		EDUC 150	Educational Psychology	3	
PSYC 101	Introduction to Psychology #SS	3					
TOTAL		17		TOTAL		17	
SECOND YEAR FALL			CREDITS	SECOND YEAR SPRING			CREDITS
BIOL 105 or BIOL 205	Human Biology Human Anatomy & Physiology I	3-4		BIOL xxx	Cell Biology or Physiology Course Option	4	
CHEM 221	Organic Chemistry I	4		BIOL xxx	Biology Elective at 200, 300, or 400-level	4	
LIT xxx	Literature	3		BIOL 231	Biology Sophomore Seminar	0	
EDUC 205	Intro to Special Education	3		MATH 112	Calculus	3	
EDUC 261	Linguistic Diversity in the Classroom #Language	3		PHIL 105	Philosophy	3	
				EDUC 240	The Diverse Learner in Sec Settings	3	
TOTAL		16-17		TOTAL		17	
THIRD YEAR FALL			CREDITS	THIRD YEAR SPRING			CREDITS
BIOL 203	Ecology	4		BIOL 301	Genetics	4	
BIOL 331	Biology Junior Seminar	0		BIOL 402	Evolution	3	
PHYS 104	Intro to Physics 1	4		PHYS 101 or PHYS 102	Physical Sciences or Descriptive Astronomy	3	
Statistics	Statistics Course (see note) #QR	3		BIOL 431	Biology Senior Seminar	1	
CORE II	Civic Responsibility & Citizenship	3		EXAM 401	Dept. Comp. Exam	0	
EDUC 333	Reading in the Content Area	3		EDUC 429	Middle/Secondary Methods I	3	
TOTAL		17		TOTAL		17	
FOURTH YEAR FALL			CREDITS	FOURTH YEAR SPRING			CREDITS
BIOL xxx	Biological Diversity Course Option	4		EDUC 450	Student Teaching #AL	12	
PHIL 319	Philosophy, Ethics & Education	3		EDUC 407	Teacher as Reflective Practitioner (for Education Majors) #CORE III	3	
EDUC 430	Methods II	3					
FNAR/ART xxx	Fine Arts & Creative Expression	3					
PHIL/FTAE	Ethics	3					
TOTAL		16		TOTAL		15	

Six credits of Math and six credits of English are Pennsylvania Department of Education program Requirements

***Course sequence may be altered with advisor consent

students may want to take summer courses to lighten the load

*ENGL 104-Completing any of the following 200-level literature courses (ENGL 201, 202, 204,207,274, and 270) can also satisfy this requirement. Any course taken for the fulfillment of this general education requirement may not count for other general education requirements or for a course within any major.

Cell Biology or Physiology Course Options

BIOL 206 – Human Anatomy & Physiology II, 4 cr (spring)

BIOL 214 - Clinical Microbiology, 4 cr (spring)

BIOL 320 - General Microbiology, 4 cr (fall)

BIOL 345 – Environmental Animal Physiology, 4 cr (spring)

BIOL 401 - Cell and Molecular Biology, 4 cr (spring)

BIOL 406 - Vertebrate Physiology, 4 cr (fall)

Biological Diversity Course Options

BIOL 204 - Invertebrate Zoology, 4 cr (fall)

BIOL 218 - Marine Biology, 4 cr (fall)

BIOL 320 - Vertebrate Zoology, 4 cr (spring)

BIOL 403 - Advanced Botany, 4 cr (fall)

Statistics Course Options

BIOL 315 - Biostatistics, 4 cr (spring)

MATH 215 - Introductory Statistics, 3 cr

STAT 205 - Essentials of Statistics, 3 cr #QR