

# Suggested Four-Year Plan of Study BIOLOGY AND CHEMISTRY



## Biology (B.S.) with Initial Licensure in Secondary Education (with Minor in Middle School and Secondary Education)

### FRESHMAN YEAR

Fall Semester		14 Credits
ENGL 1100	Writing I.....	3
BIOL 1800	General Biology I.....	4
CHEM 1300	General Chemistry I* (SI) .....	4
FYE 1015	First Year Experience.....	3
* General Chemistry requires a 'passing' score on Advanced Algebra and Functions Accuplacer exam OR successful completion of MATH 0500 (Algebraic Preparation) prior to enrollment. To continue as a Biology major, students must earn a grade of 2.0 or higher in General Biology I and General Chemistry I.		
Spring Semester		17 Credits
ENGL 1200	Writing II.....	3
BIOL 1900	General Biology II.....	4
CHEM 1300	General Chemistry II (PL) .....	4
BIOL 1860	Introduction to Education (5-12)*** .....	3
	Gen Ed/WS .....	3

### JUNIOR YEAR

Fall Semester		16-17 Credits
BIOL ≥2000§	Biology Elective .....	3-4
PHYS 2300	General Physics I.....	4
BIOL 3700	Bioethics (ER).....	3
	Gen Ed/Exploration.....	3
SPED 3800	Inclusive Instruction (5-12)*** .....	3
§ Human Anatomy and Physiology I and II (BIOL 2004/2005) are strongly suggested for 2 of the Biology electives.		
Spring Semester		13-14 Credits
BIOL ≥2000	Biology Elective.....	3-4
PHYS 2400	General Physics II.....	4
BIOL 3015	Methods of Teaching Biology I*** .....	3
	Gen Ed/Exploration.....	3

#### General Education: Foundation

- 3 credits Reading and Information Literacy (R and IL): First Year Experience
- 3 credits Writing (W): Writing I
- 3 credits Writing and Information Literacy (W and IL): Writing II
- 3 credits Quantitative Reasoning (QR) (MATH)
- 3 credits World Languages, Speaking and Listening (WS)

#### General Education: Exploration

- 3 credits Civic Learning (CV)
- 3 credits Diverse Perspectives (DP)
- 3 credits Ethical Reasoning (ER)
- 3 credits Fine Arts Expression and Analysis (FA)
- 3 credits Historical Inquiry and Analysis (HI)
- 3 credits Literary Inquiry and Analysis (LI)
- 3 credits Personal Wellness (PW)
- 3 credits Procedural and Logical Thinking (PL)
- 3 credits Scientific Inquiry and Analysis (SI)

Suggested 4-year plan of study. Completion of 120 credits required for graduation.

### SOPHMORE YEAR

Fall Semester		17 Credits
BIOL 2300	Ecology .....	4
CHEM 2000	Organic Chemistry I .....	4
MATH ≥1300**	Math Elective (QR) .....	3
EDUC 2011	Diversity in Education (5-12)*** .....	3
	Gen Ed/Exploration .....	3
** Applied Statistics (MATH 1700) is recommended to fulfill the QR requirement.		
Spring Semester		15 Credits
Genetics 2800	Genetics .....	4
CHEM 2100	Organic Chemistry II .....	4
EDUC 2012	Teaching the Adolescent Learner (5-12)*** .....	3
MATH 1300	Precalculus.....	4
*** These courses are required for completion of the minor in Middle School and Secondary Education. Students must complete this minor for the Initial Licensure in Secondary Education. The minor fulfills the Integration requirement for the Biology major.		

### SENIOR YEAR

Fall Semester		16 Credits
BIOL ≥3000	Biology Elective (Capstone).....	4
BIOL 4850	Methods of Teaching Biology II*** .....	3
EDUC 3122	Sheltered English Immersion.....	3
	Gen Ed/Exploration.....	3
	Gen Ed/Exploration.....	3
Spring Semester		12 Credits
BIOL 4860	Biology Practicum in Secondary Education I.....	4.5
BIOL 4870	Biology Practicum in Secondary Education II.....	4.5
BIOL 4012	Practicum Seminar.....	3

#### General Education: Integration

9 credits AIA (3 of which must be Integrative High Impact Practice - IHIP)  
OR  
Minor (professional majors completing a minor or second major must include at least 9 credits in LA&S disciplines for that minor)

#### General Education: MAJ

There may be major courses that have been approved to fulfill up to 3 General Education requirements (at least 9 credits). Varies by major and concentration.