

Secondary Education and Biology (BS) Dual Major

Course Requirements beginning Fall 2025

All courses earn 1 unit toward the 30 units needed for graduation, unless noted.

Biology

Bachelor of Science (BS) Degree		
Biology Core	Biology Options	Biology Correlates
BIO 099 Orientation to Biology (0 course units)	BIO 300-400 Biology Option	CHE 201 General Chemistry I
BIO 201 Foundations of Biological Inquiry	BIO 300-400 Biology Option	CHE 202 General Chemistry II
BIO 211 Cell Biology and Biochemistry	BIO 300-400 Biology Option	CHE 331 Organic Chemistry I
BIO 221 Ecology & Field Biology	BIO 300-400 Organisms & Evolution Option	CHE 332 Organic Chemistry II
BIO 231 Genetics		MAT 127 Calculus A
BIO 498 Biology Seminar		One of the following: MAT 128 Calculus B MAT 200 Discrete Mathematics STA 215 Statistical Inference
		One of the following: PHY 121 Principles of Physics PHY 201 General Physics I

Education

Pre-Candidacy	Candidacy	
	Clinical I	Clinical II
SED 099 College Seminar (0 course units)	Note: the three courses listed below are taken together, spring of junior year. One other course may be taken.	Note: only the two courses listed below are taken during Clinical II, fall of senior year.
EFN 299 Schools, Communities & Culture	SED 399 Pedagogy in Secondary Schools (1.5 course units)	BIO 490 Student Teaching Biology (2 course units)
SED 224 Adolescent Learning and Development	PHY 390 Methods of Teaching Science	SED 498 Collaborative Capstone for Professional Inquiry
SPE 322 Inclusive Practices	RAL 328 Reading in Secondary Education: Supporting Adolescent Literacies (0.5 course units)	

College Core

Second Language Proficiency		
Second Language 2nd Level: demonstrate proficiency in a second language at the 2nd level based on placement. If placed out of the 101 level, must complete courses at the 102 and 103 levels, if language previously studied is continued. If placed into the 101 level, must complete courses at the 101 and 102 levels.		
Intellectual & Scholarly Growth	Social Justice	Multidisciplinary Perspectives
Information Literacy Proficiency (IDS 102, 0 course units)	First-Year Community Engagement (FYC 100, 0 course units)	Literary, Visual, or Performing Arts (one course, or 1 unit of music ensemble)
First-Year Seminar (FYS)	Gender & Sexuality (one course)	Belief Systems (one course)
Mid-Level Writing-Intensive Course (fulfilled by BIO 221 Ecology & Field Biology)	Global Perspectives (one course)	Behavioral, Social or Cultural Perspectives - Secondary Education (fulfilled by SED 224 Adolescent Learning and Development)
Writing-Intensive Senior Capstone or Third-Level Course (fulfilled by BIO 498 Biology Seminar)	Race & Ethnicity (one course)	Historical Perspectives (one course)
		Behavioral, Social, or Cultural Perspectives - Secondary Education (fulfilled by SPE 322 Inclusive Practices)