

B.S. in Biology and Education with Endorsement in Secondary Education in Biology			
BIOLOGY MAJOR REQUIREMENTS: 44 Credits		Credits	
8 Credits of Biology Electives	BY109: Intro to Biodiversity & Evolution	4.0	
	BY110: Intro to Cell & Molecular Biology	4.0	
	BY203: Invertebrate Zoology or BY204: Vertebrate Zoology	3.0	
	BY213: Biology of Vascular Plants or BY214: Botany	3.0	
	BY223: General Microbiology	4.0	
	BY310: Biochemistry and Laboratory	4.0	
	BY370: Cell Biology	3.0	
	BY375L: Lab Molecular & Cell	2.0	
	BY423: Genetics	4.0	
	BY425: Principles of Developmental Biology	4.0	
From Among: BY111, BY112, BY340, BY324, BY406, BY410, BY475, BY499	8.0		
BY495: Senior Seminar & Portfolio	1.0		
EDUCATION MAJOR REQUIREMENTS: 24 Credits (a)		Credits	
9 credits as follows:	ED250: Foundations of Teaching & Learning	3.0	
	ED201: Education Psychology	3.0	
	EDL206: Child & Adolescent Development	3.0	
	ED319: Literacy Across the Secondary Curriculum	3.0	
	ED319N: NCATE Assessment	0.0	
	ED320: Teaching Students with Diverse Needs	3.0	
	ED416: Student Teaching (8 credits) AND ED416S: Seminar in Student Teaching (1 Credit)	9.0	
	OR ED417: Supervised Student Teaching (8 credits) AND ED417S: Seminar in Student Teaching (1 Credit)		
	EDUCATION METHODS REQUIREMENTS: 6 Credits (a)		Credits
		ED369: Teaching Secondary Science, Part I or ED375: Secondary Teaching Methods Part I	3.0
ED370: Teaching Secondary Science, Part II or ED376: Secondary Teaching Methods Part II		3.0	
ED-PRAXIS: Education Praxis II • PRAXIS - 20235 • PRAXIS - 10435		0.0	
BIOLOGY OUTSIDE THE MAJOR REQUIREMENTS: 30 Credits		Credits	
		MA115: Math Models in Biology or MA116: Calculus for Biology or MA125: Calculus with Analytic Geometry I	3.0
	MA151: Statistics with Applications	3.0	
	CE111: General Chemistry	3.0	
	CE111L: General Chemistry Lab	1.0	
	CE112: General Chemistry	3.0	
	CE112L: General Chemistry Lab	1.0	
	CE241: Organic Chemistry	3.0	
	CE241L: Organic Chemistry Lab	2.0	
	CE242: Organic Chemistry	3.0	
	PH105: Physics for the Life Sciences	3.0	
	PH105L: Physics for the Life Sciences Lab	1.0	
	PH106: Physics for the Life Sciences	3.0	
	PH106L: Physics for the Life Sciences Lab	1.0	
	EDUCATION OUTSIDE THE MAJOR REQUIREMENTS: 3 Credits		Credits
		PY103: Introduction to Psychology	3.0

(a) Minimum grade of "C" required for Education Courses.

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GENERAL EDUCATION REQUIREMENTS: 33 Credits		Credits
English	EN101: College English I	3.0
	EN102: College English II	3.0
Literature	EN201: Literature I	3.0
	EN202: Literature II	3.0
History	HS101: Western Civilization In World Perspective I	3.0
	HS102: Western Civilization In World Perspective II	3.0
Information Technology	IT102: Information Technology for Scientists	3.0
Critical Discourse	HU201: Critical Discourse (waived)	0.0
Science	Fulfilled in Major Requirements	0.0
Mathematics	Fulfilled in Requirements Outside Major	0.0
Social Science (partially fulfilled in Outside the Major Requirements)	Choose one course from among the following: any 100-level course in AN, GO, PS, SO; BE201, BE202, GS225	3.0
Aesthetics	AR101: Art Appreciation or MU101: Music Appreciation or TH101: Theater Appreciation or DA101: Dance Appreciation	3.0
Cross Cultural	One course chosen from the set of approved courses or 3 credits in a foreign language	3.0
Perspectives	PRxxx	3.0
Experiential Education	EX001	0.0
Demonstration of Writing Proficiency	WP001	0.0
Writing Intensive Requirement	Two Biology (BY) courses designated as course type WT	0.0
		0.0
	Two Education (ED, EDL, EDS) courses designated as course type WT	0.0
		0.0
TOTAL CREDITS FOR B.S. IN BIOLOGY AND EDUCATION WITH ENDORSEMENT IN SECONDARY EDUCATION IN BIOLOGY= 140.0		
ADDITIONAL ENDORSEMENTS AVAILABLE: <i>(Please review Endorsement Charts for Requirements)</i>		
<ul style="list-style-type: none"> • TSD - Teacher of Students with Disabilities - Secondary (15 credits) • ESL - English as a Second Language - Secondary (12 credits) 		
NOTES:		
* 58 credits must be completed at the 200 level or higher.		
** Education majors are required to have an overall GPA of 2.75 for State Certification.		
Teacher of Biological Science 7-12 Certification		
***By state regulation, all Education Majors seeking content area endorsement must complete 12+ credits at the 300+ level in the content major.		