

Biology, Secondary Education Certification Option

Bachelor of Science

Area A: Essential Skills		
Grades of C or better required.		
ENGL 1101	English Composition I	3
ENGL 1102	English Composition II	3
MATH 1113	Precalculus Mathematics	3
Area B: Institutional Options		
COMM 1110	Fundamentals of Speech	3
(Prerequisite for EDUC 2110 , EDUC 2120 , and EDUC 2130 . Grade of C or better required.)		
Choose one of the following electives:		
COMM 1120	Argumentation and Advocacy	
ENGL 1105	Intro to Greek Mythology	
ENGL 1110	Creative Writing	
GEOL 1000	Natural Hazards	
HIST 1050	Appalachian Hist-Special Topic	
HIST 1051	Sports Hist & Amer Character	
HUMN 1000	Mystery Fiction in Pop Culture	
HUMN 1100	Political and Social Rhetoric	
HUMN 1300	Christian Fiction/Pop Culture	
PHED 1030	Health & Wellness Concepts	
SOC 1000	Race and Ethnicity in America	

Area C: Humanities/Fine Arts		
Choose one to two ENGL course(s):		3-6
ENGL 2111	World Literature I	
ENGL 2112	World Literature II	
ENGL 2120	British Literature I	
ENGL 2121	British Literature II	
ENGL 2130	American Literature I	
ENGL 2131	American Literature II	
ENGL 2201	Intro to Film as Literature	
If only one ENGL course chosen, add one of the following:		0-3
ARTS 1100	Art Appreciation	
HUMN 1201	Expressions of Culture I	
HUMN 1202	Expressions of Culture II	
MUSC 1100	Music Appreciation	
MUSC 1110	World Music	
MUSC 1120	American Music	
THEA 1100	Theatre Appreciation	
Area D: Science/Mathematics/Technology		
MATH 2253	Calculus and Analytic Geom I *	4
CHEM 1211K	Principles of Chemistry I	4
CHEM 1212K	Principles of Chemistry II	4
Area E: Social Sciences		
HIST 2111	United States History to 1877	3
or HIST 2112	United States Hist since 1877	

POLS 1101	American Government	3
Two of the following electives:		6
ANTH 1103	Intro to Cultural Anthropology	
ECON 2105	Principles of Macroeconomics	
ECON 2106	Principles of Microeconomics	
GEOG 1100	Introduction to Geography	
GEOG 1101	Intro to Human Geography	
GEOG 1111	Intro to Physical Geography	
HIST 1111	World Civilization to 1650 CE	
HIST 1112	World Civilization since 1650	
HIST 2111	United States History to 1877	
HIST 2112	United States Hist since 1877	
PHIL 1103	Intro to World Religions	
PHIL 2010	Intro to Philosophical Issues	
PHIL 2020	Logic and Critical Thinking	
POLS 2101	Intro to Political Science	
POLS 2201	State and Local Government	
POLS 2301	Comparative Politics	
POLS 2401	International Relations	
PSYC 1101	Introduction to Psychology	
(Prerequisite for EDUC 2110 , EDUC 2120 , and EDUC 2130 . Grade of C or better required.)		
PSYC 2101	Psychology of Adjustment	
PSYC 2103	Human Development	
SOC 1101	Introduction to Sociology	

SOCJ 1160	Social Problems	
Area F: Major Related		
BIOL 1107K	Principles of Biology I	4
BIOL 1108K	Principles of Biology II	4
BIOL 2270	Ethical Issues in Science	2
EDUC 2110	Investig Critical/Contem Issue **	3
EDUC 2120	Expl Socio-Cultural Perspect **	3
EDUC 2130	Exploring Learning/Teaching **	3
Upper Level Courses		
BIOL 3000	Research Method/Scientific Com	3
BIOL 3200K	Cellular Biology	4
BIOL 3400K	Genetics	4
BIOL 3500K	Ecology	4
BIOL 3510K	Plant Biology	4
BIOL 4000	Senior Seminar	2
BIOL 4250	Evolution	3
CHEM 3211K	Organic Chemistry I	4
CHEM 3212K	Organic Chemistry II	4
MATH 2200	Introduction to Statistics	3
Take one lab course (indicated with a "K") or two non-lab courses:		4
BIOL 3300K	Developmental Biology	
BIOL 3340K	General Microbiology	
BIOL 3520K	Invertebrate Zoology	
BIOL 3550	Conservation Biology	

BIOL 3600K	Ornithology	
BIOL 3700	Field Biology Techniques	
BIOL 3900	Readings in Biology	
BIOL 4100	Immunology	
BIOL 4275	Bioremediation/Phytoremediatio	
BIOL 4360K	Comparative Vertebrate A & P	
BIOL 4410K	Molecular Biology	
BIOL 4500K	Biotechnology	
BIOL 4600	Ecotoxicology	
BIOL 4800	Service Learning in Biology	
BIOL 4900	Special Topics in Biology	
BIOL 4960	Research in Biology	

Education Courses		

Professional Education Semester 1 (Block I) - Fall Semester		
Prior to enrollment in PES I courses, students must be accepted to the Teacher Education Program and have completed 8 credit hours of Biology with grades of C or better.		
EDUC 3902	Curric/Asses Secondary Teacher	3
EDUC 3272	Class Mgmt Sec Ed Field Exp I	2

Professional Education Semester 2 (Block II) - Spring Semester		
Prior to enrollment in PES II courses, students must have completed EDUC 3902 and EDUC 3272 with grades of C or better.		
EDUC 3273	Class Mgmt Sec Ed Field Exp II	2

EDUC 4901	Methods/Strat Teach Sec Stu	3

Professional Education Semester 3 (Block III) - Fall Semester		
Prior to enrollment in PES III, students must have completed EDUC 3273 and EDUC 4901 with grades of C or better.		
EDUC 3120	Teaching Diverse Learners(Sec)	3
EDUC 3274	Class Mgm Sec Ed Field Exp III	2

Professional Education Semester 4 (Block IV) - Spring Semester		
Prior to enrollment in PES IV, students must have completed EDUC 3120 , EDUC 3274 , and 24 credit hours of Biology with grades of C or better.		
READ 3456	Reading across Curric Sec Educ	3
EDUC 4952	Internship in Sec School Biol	8
EDUC 4953	Teaching Internship Seminar	1

Physical Education		
PHED Activity Elective		1
Total Hours		128

* MATH 2253 may be taken in Area A if the student meets the prerequisites, with MATH 2254 then taken in Area D. The additional hour of credit will be applied to the upper level curriculum.

** Prior to enrollment in EDUC 2110 and EDUC 2120 students must have taken ENGL 1101. For EDUC 2130, students must have taken ENGL 1101 and PSYC 1101 with grades of C or better. Approved Background check, proof of professional Liability Insurance, completion of the mandated reporter training course, and a passing score on an Ethics assessment are also required. EDUC 2110, EDUC 2120, EDUC 2130 must be completed with grades of C or better prior to acceptance into PES 1.