

Biology Bachelor of Science in Education: Secondary Education

Program Code: UCOESEUBS
Version Number: 2118-Fall 2011
Program Effective: August 29, 2011
Credit Total: 120

GENERAL EDUCATION		
I. University Core: 12 S.H.	GR.	S.H.
a. Oral Communication: COM 010 or above		3
b. Written Communication: ENG 023, 024 or 025 ♦		3
c. Mathematics: MAT 105, 106, 115, 140, 181 or 182 ♦ (suggested)		#
d. Wellness: Any 3 credit HEA course		3

II. University Distribution: 15 S.H.	GR.	S.H.
a. Natural Sciences: Any lab or non-lab course with prefix AST, BIO, CHM, ENV, GEL, MAR, NSE or PHY ; or certain GEG courses with advisement BIO 104 (suggested)		#
b. Social Sciences: Any course with prefix ANT, CRJ, ECO, HIS, MCS, POL, PSY, SOC, SSE or SWK ; or certain GEG courses with advisement		3
c. Humanities: Any course with prefix ENG, HUM, PAG, PHI, WGS, WRI, or Modern Language ENG 010 or higher (English Literature) (suggested) ♦		3
d. Arts: Any course prefix ARC, ARH, ART, CDE, CDH, CFT, DAN, FAR, FAS, MUP, MUS, or THE		3
e. Free Elective: Any course carrying university credit		3

IV. College Distribution: 21 S.H.	GR.	S.H.
a. Math: MAT 105, 106, 115, 140, 181 or 182 (suggested) ♦		#
b. Special Education: SPU 201 Cognitive Development		#
c. Technology: ITC 321 Instructional Technology in Education		3
d. 12 credits required by major but fulfilling General Education requirements		
COURSE: BIO 106 (suggested)		#
COURSE: BIO 108 (suggested)		#
COURSE: CHM 100 (suggested)		#

III. Competencies Across the Curriculum	S.H.
A. Writing Intensive (WI) (9 credits/3 three credit courses) COURSE: SEU 312 COURSE: SEU 342 COURSE: SEU 321-325, 410	9
B. Quantitative Literacy (QL) (3 credits) OR Computer Intensive (CP) (3 credits) COURSE: ITC 321	3
C. Visual Literacy (VL) (3 credits) OR Communication Intensive (CM) (3 credits) COURSE: SEU 342	3
D. Cultural Diversity (CD) (3 credits) COURSE: SEU 312	3
E. Critical Thinking (CT) (3 credits) COURSE: EDU 100	3

VI. Clinical Component: 36 S.H.	GR.	S.H.
EDU 100 Perspectives on American Education		3
SPU 201 Cognitive Development of Diverse Learners in a Standards Aligned System #		3
SPU 314 Effective Instructional Strategies for Students with Disabilities in Inclusive Settings		3
¹ SEU 312 Principles of Learning		3
¹ SEU 313 Principles of Learning Clinical Lab (must be taken with accompanying lecture-SEU 312)		3
¹ SEU 342 Principles of Teaching		3
¹ SEU 343 Principles of Teaching Clinical Lab (must be taken with accompanying lecture-SEU 342)		3
EDU 326 Introduction to Middle Level Education (recommended)		
¹ SEU 410 Science Instructional Methods for Middle and High School		3
SEU 390/391 Clinical Experience and Practicum I and II		12
Total		

¹Teacher Candidacy must be achieved for these courses and a minimum grade of B- is required.

TEACHER CANDIDACY REQUIREMENTS

Requirements must be met upon reaching 48 credit hours

- Required Basic Skills Assessment
- Required Grade Point Average
- C or better in ENG 023 or 025
- C or better in ENG literature course
- C or better in two mathematics courses
- Completion of Education Exploration hours

♦These courses require a grade of "C" or better

B.S. in Secondary Education – Biology

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V. SPECIALIZATION: 57-60 S.H.		
1. Required Courses: 32-33 S.H.	GR.	S.H.
BIO 104 Principles of Biology #		4
BIO 106 Introduction to Zoology #		4
BIO 108 Introduction to Botany #		4
BIO 222 Environmental Biology		3
BIO 224 Applied Environmental Microbiology		3
Choose one of the following: BIO 218 Vertebrate Biology BIO 302 Entomology BIO 308 Ornithology BIO 314 Animal Behavior BIO 316 Invertebrate Biology BIO 342 Herpetology		3
Choose one of the following: BIO 230 Taxonomy of Vascular Plants BIO 232 Plant Physiology BIO 324 Plant Ecology		3
Choose one of the following: BIO 228 Human Physiology BIO 300 Comparative Animal Physiology BIO 320 Physiological Ecology of Animals		3
BIO 216 Genetics		3
Choose one of the following: BIO 252 Cellular Physiology and Metabolism BIO 346 Molecular Biology BIO 350 Cell Biology BIO 357 Immunology BIO 460 Cancer Biology		3
Choose one of the following: BIO 270 Research in Methods BIO 370 Research in Biology BIO 380 Senior Seminar in Biology ENV 380 Senior Seminar in Environmental Science		2-3
Total		33
2. Physical Science Requirements: 16 S.H.		
CHM 100 General Chemistry I #		4
CHM 102 General Chemistry II		4
CHM 214/215 Organic Chemistry I		4
PHY 040/041 General Physics I		4
Total		16
3. Mathematics Requirements: 6-8 S.H. Select one course from each of the following blocks:		
<i>Select one of the following courses:</i> #		
MAT 105 College Algebra MAT 115 Precalculus Mathematics MAT 181 Calculus I		3-4
<i>Select one of the following courses:</i> #		
MAT 140 Applied Statistical Methods PSY 200 Statistics for the Social and Behavioral Sciences MAT 181 Calculus I MAT 182 Calculus II		3-4

Courses cross-list with General Education

Program:		BSED SEU/BIO SCI			
FIRST YEAR					
<i>Fall Semester</i>			<i>Spring Semester</i>		
<i>Course</i>	<i>Title</i>	<i>C.H.</i>	<i>Course</i>	<i>Title</i>	<i>C.H.</i>
EDU 100CT	Perspectives on American Education	3	SPU 201	Cognitive Development of Diverse Learners in a Standards Aligned System	3
COM 010	Fundamentals of Oral Communication	3	MAT 017 or above	Mathematics General Education Requirement	3 or 4
ENG 23, 24 or 25	College Composition	3		ENG Literature Course (Humanities General Education Requirement)	3
MAT 017 or above	Mathematics General Education Requirement	3 or 4		BIO Required Course	3 or 4
	BIO Required Course	3 or 4		BIO Required Course	3 or 4
Total		15 or 17	Total		15 or 18
SECOND YEAR					
<i>Fall Semester</i>			<i>Spring Semester</i>		
<i>Course</i>	<i>Title</i>	<i>C.H.</i>	<i>Course</i>	<i>Title</i>	<i>C.H.</i>
ITC 321CPVL	Instructional Technology in Education	3	SPU 314	Effective Instructional Strategies for Students with Disabilities in Inclusive Settings	3
	General Education Requirement (Wellness, Social Sciences, Natural Sciences, or Arts)	3 or 4		General Education Requirement (Wellness, Social Sciences, Natural Sciences, or Arts)	3 or 4
	General Education Requirement (Wellness, Social Sciences, Natural Sciences, or Arts)	3 or 4		General Education Requirement (Wellness, Social Sciences, Natural Sciences, or Arts)	3 or 4
	BIO Required Course	3 or 4		BIO Required Course	3 or 4
	BIO Required Course	3 or 4		BIO Required Course	3 or 4
Total		15 or 19	Total		15 or 19
THIRD YEAR					
<i>Fall Semester</i>			<i>Spring Semester</i>		
<i>Course</i>	<i>Title</i>	<i>C.H.</i>	<i>Course</i>	<i>Title</i>	<i>C.H.</i>
SEU 312WICD	Principles of Learning	3	SEU 342WIVL	Principles of Teaching	3
SEU 313	Principles of Learning Clinical Component	3	SEU 343	Principles of Teaching Clinical Component	3
	General Education Requirement (Free Elective)	3 or 4		BIO Required Course	3 or 4
	BIO Required Course	3 or 4		BIO Required Course	3 or 4
	BIO Required Course	3 or 4		BIO Required Course	3 or 4
Total		15 or 18	Total		15 or 18
FOURTH YEAR					
<i>Fall Semester</i>			<i>Spring Semester</i>		
<i>Course</i>	<i>Title</i>	<i>C.H.</i>	<i>Course</i>	<i>Title</i>	<i>C.H.</i>
SEU 410WI	Science Instructional Methods for Middle & High School	3	SEU 390	Clinical Experience & Practicum I	6
	BIO Required Course	3 or 4	SEU 391	Clinical Experience & Practicum II	6
	BIO Required Course	3 or 4			
	BIO Required Course	3 or 4			
EDU 326	Introduction to Middle Level Education	3			
Total		15 or 18	Total		12