



College of Education

**Bachelor of Science in Education: Secondary Education – Biology
Special Education Dual Certificate**

Program Code: **UCOESEUSBI**
 Version Number: **2168-Fall 2016**
 Program Effective: **August 29, 2016**
 Credit Total: **138**

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 SPU 316 (suggested)		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		3
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	#
B. Quantitative Literacy (QL) (3 credits) OR Computer Intensive (CP) (3 credits) COURSE: ITC 321	#
C. Visual Literacy (VL) (3 credits) OR Communication Intensive (CM) (3 credits) COURSE: SEU 342	#
D. Cultural Diversity (CD) (3 credits) COURSE: SEU 312	#
E. Critical Thinking (CT) (3 credits) COURSE: EDU 100	#

A Competency Across the Curriculum (CAC) course is not a separate course, but rather an overlay that is “double counted” as fulfilling both the CAC requirement and another requirement in either General Education (except for the University Core), the major, or the minor.

- RC = Minimum required number of credits
- CR = Credits earned (fill in number of credits)
- GR = Grade earned (fill in letter grade)
- CAC = Competency Across the Curriculum (fill in designation)

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

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V. SPECIALIZATION: 57-60 S.H.		
1. Required Courses: 35-36 S.H.	GR.	S.H.
BIO 104 Principles of Biology #		4
BIO 106 Introduction to Zoology #		4
BIO 108 Introduction to Botany #		4
BIO 222WI 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 216QL Genetics		3
Choose one of the following: BIO 252 Cellular Physiology and Metabolism BIO 346 Molecular Biology BIO 350 Cell Biology BIO 356 Immunology BIO 460 Cancer Biology		3
Choose one of the following: BIO 270CTWI Research in Methods BIO 370 Research in Biology BIO 380 Senior Seminar in Biology ENV 380 Senior Seminar in Environmental Science		2-3
Total		36
2. Physical Science Requirements: 16 S.H.		
CHM 100 General Chemistry I #		4
CHM 102 General Chemistry II		4
CHM 204 Fundamentals of Organic Chemistry OR CHM 214VL Organic Chemistry I		4
PHY 040 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 106 Trigonometry 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

VI. Clinical Component: 31 S.H.	GR.	S.H.
EDU 100 Perspectives on American Education		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		3
¹ SEU 410 Science Instructional Methods for Middle and High School		3
SEU 390 or 391 Clinical Experience and Practicum I or II		6
EDU 392 Managing an Inclusive Classroom		1
Total		

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

VII. Special Education Certification Courses: 33 S.H.	GR	S.H
SPU 201 Cognitive Development of Diverse Learners in a Standards-Aligned System		#
SPU 315 Building Collaborative Networks to Support Secondary Students with Disabilities or SPU 314 Effective Instructional Strategies for Students with Disabilities in Inclusive Settings		#
SPU 316 Literacy Development and Instruction in Core and Intervention Areas		#
SPU 317 Intensive Reading, Writing and Mathematics Intervention Approaches		3
SPU 318 Assessment and Instructional Methods for Students with Disabilities		3
SPU 320 Special Education Processes and IEP Development		3
SPU 322 Teaching Students with High Incidence Disabilities		3
SPU 328 Positive Behavioral Intervention & Supports		3
SPU 330 Teaching Students with Low Incidence Disabilities		3
SPU 392 or 393 Clinical Experience and Practicum I or II		6

Program:	BSED SEU/SPU/BIO SCI				
FIRST YEAR					
<i>Fall Semester</i>			<i>Spring Semester</i>		
Course	Title	C.H.	Course	Title	C.H.
EDU 100CT	Perspectives on American Education	3	SPU 314	Effective Instructional Strategies for Students with Disabilities in Inclusive Settings	3
SPU 201	Cognitive Development of Diverse Learners in a Standards Aligned System	3		General Education Requirement (Wellness, Social Sciences, Natural Sciences, or Arts)	3 or 4
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		18 or 20	Total		18 or 22
SECOND YEAR					
<i>Fall Semester</i>			<i>Spring Semester</i>		
Course	Title	C.H.	Course	Title	C.H.
ITC 321CPVL	Instructional Technology in Education	3	SPU 318	Assessment and Instructional Methods for Students with Disabilities	3
SPU 316	Literacy Development and Instruction in Core and Intervention Areas (Free Elective)	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
	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		BIO Required Course	3 or 4
Total		18 or 22	Total		18 or 23
THIRD YEAR					
<i>Fall Semester</i>			<i>Spring Semester</i>		
Course	Title	C.H.	Course	Title	C.H.
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
SPU 330	Teaching Students with Low Incidence Disabilities	3	SPU 328	Positive Behavioral Intervention and Supports	3
	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		BIO Required Course	3 or 4
Total		18 or 21	Total		18 or 21
FOURTH YEAR					
<i>Fall Semester</i>			<i>Spring Semester</i>		
Course	Title	C.H.	Course	Title	C.H.
SEU 410WI	Science Instructional Methods for Middle & High School	3	SEU 390 or SPU 392	Clinical Experience & Practicum I	6
SPU 317	Intensive Reading, Writing, and Mathematical Intervention Approaches	3	SEU 391 or SPU 393	Clinical Experience & Practicum II	6
SPU 320CT	Special Education Processes and IEP Development	3			
SPU 322	Teaching Students with High Incidence Disabilities	3			
	BIO Required Course	3 or 4			
	BIO Required Course	3 or 4			

	SEU 410WI is only offered in fall semesters				
<i>Total</i>		18 or 20	<i>Total</i>		12