BIOLOGY ADOLESCENCE EDUCATION, BS

Department Chair: Johanna Schwingel, Ph.D.

This program is designed to prepare graduates to teach in secondary education institutions having mastered content area and having met the academic requirements for teacher certification.

This program enables students to obtain initial certification in Adolescence Education in Biology. Student complete a biology major especially tailored to the New York State Adolescence Education requirements for biology while also completing all of the courses required for initial teaching certification.

Formal admission to the School of Education's adolescence education (ADED) certification program (for junior year field block approval) is granted provided a student meets the following qualifications:

- GPA of 3.0 in the academic major
- GPA of at least 2.5 in all courses in biology
- Cumulative GPA of 3.0 or better
- Grades of C (2.0) or better in two writing courses.

Requirements for graduation include

- Cumulative GPA of 3.0
- GPA of 3.0 in all education courses (including SPED courses)
- Minimum GPA of 2.5 in the disciplinary concentration.

Students complete 140 hours of field block experience, during which they apply classroom knowledge with supervised experience in classrooms, as well as student teaching requirements.

Code	Title	Credits
Biology		**33**
BIO-105 & BIOL-105	BIOLOGICAL SCIENCE I and BIOLOGICAL SCI. I LAB	
BIO-106 & BIOL-106	BIOLOGICAL SCIENCE II and BIOLOGICAL SCI. II LAB	
BIO-211 & BIOL-211	HUMAN ANATOMY & PHYSIOLOGY and HUMAN ANAT & PHYSIOL LAB	
BIO-212 & BIOL-211	HUMAN ANATOMY & PHYSIOLOGY and HUMAN ANAT & PHYSIOL LAB	
BIO-291	GENETICS	
BIO-292	CELL BIOLOGY	
BIOL-293	GENETICS/CELL BIO LABORATORY	
BIO-399	BIOLOGY SEMINAR	
BIO-456	SENIOR FACULTY COLLOQUIUM	
BIO-457	SENIOR FACULTY COLLOQUIUM	
BIO-310	PLANT BIOLOGY	
or BIO-406	PLANT DEVELOPMENT & PHYSIOLOGY	
BIO-341	ECOLOGY	
BIO-390	EVOLUTION	
Chemistry		**12**
CHEM-101 & CHML-101	GENERAL CHEMISTRY I and GEN CHEM I LAB	
CHEM-102 & CHML-102	GENERAL CHEMISTRY II and GEN CHEM II LAB	
CHEM-301 & CHML-301	ORGANIC CHEMISTRY I and ORGANIC CHEM I LAB	
Mathematics		**7**
MATH-107	INTRODUCTION TO STATISTICS	
or MATH-117	INTRODUCTION TO STATISTICS FOR NATURAL SCIENCE MAJORS	
MATH-151	CALCULUS I	
Physics		**8**
PHYS-103 & PHYL-103	GENERAL PHYSICS I and GENERAL PHYSICS I LAB	
PHYS-104 & PHYL-104	GENERAL PHYSICS II and GENERAL PHYSICS LAB II	
Education		**38**
EDUC-101	SOCIAL FOUNDATIONS OF AMERICAN EDUCATION: A CURRENT ISSUES APPROACH	
SPED-445	INSTRUCTIONAL STRATEGIES FOR MATH & SCIENCE IN INCLUSIVE SECONDARY EDUCATION	
EDUC-208L	INSTRUCTIONAL DESIGN FOR ALL LEARNERS	
EDUC-250	ADOLESCENT DEVELOPMENT & LEARNING	
EDUC-306	MANAGING INTRUCTION/BEHAVIOR IN SEC ED	
EDUC-330	METHODS, MODELS, MANAGEMENT OF INSTRUCTION	
EDUC-354	PROBLEMS OF LITERACY IN SEC SCHOOLS	
EDUC-360	LITERACY IN THE CONTENT AREA	
EDUC-406	EVALUATING LEARNERS & LEARNING	
EDUC-495	SEC.STUD.TEACHING:GRADES 7-9	
EDUC-495A	SR SEM: PROF ASSESSMENT & REFLECTION	
EDUC-496	SEC STUD TEACH:GRADES 10-12	
EDUC-341	SECONDARY SCIENCE METHODS	
Workshops		
EDUC-099A	SAFE SCHOOLS WORKSHOP	
EDUC-099B	CHILD ABUSE PREVENTION	
EDUC-099D	CULTURAL DIVERSITY WORKSHOP	
EDUC-099F	Harassment, Bullying, Cyberbullying & Di	
EDUC-099K	EXPERIENCE IN DIVERSE ENVIRONMENTS	
Foreign Language [1]		**3**
General Education Requirements (https://catalog.sbu.edu/undergraduate/degree-requirements/)		**37**
Total Credits		**131**

[1] The foreign language must be at the level of 202 or higher. Students not prepared to begin at this level will need to take additional courses in language.

First Year

Fall	Credits	Spring	Credits
BIO-105 & BIOL-105	4	BIO-106 & BIOL-106	4
CHEM-101 & CHML-101	4	CHEM-102 & CHML-102	4
SBU-101	2	ENG-102	3
SBU-102	1	EDUC-101	3
ENG-101	3	PHIL-104	3
THFS-101	3		
	17		17

Second Year

Fall	Credits	Spring	Credits
BIO-291	3	BIO-292	3
BIO-211 & BIOL-211	4	BIOL-293	1
MATH-107 or 117	3	BIO-212 & BIOL-212	4
Foreign Language 201[1]	3	BIO-310 or 406	3
SPED-445	4	BIOL-310 or 406	0
EDUC-099A	0	Foreign Language 202[1]	3
EDUC-099B	0	EDUC-250	3
EDUC-099F	0		
	17		**17**

Third Year

Fall	Credits	Spring	Credits
BIO-341	3	BIO-399	1
PHYS-103 & PHYL-103	4	PHYS-104 & PHYL-104	4
MATH-151	4	EDUC-406	3
EDUC-354	3	EDUC-306	3
General Education	3	EDUC-330	2
		EDUC-341	1
		EDUC-360	3
	17		**17**

Fourth Year

Fall	Credits	Spring	Credits
BIO-390	3	BIO-457	0
BIO-456	0	EDUC-495	5
CHEM-301 & CHML-301	4	EDUC-496	5
General Education	3	EDUC-495A	3
General Education	3	EDUC-099D	0
General Education	3		
	16		**13**

Total Credits 131

1 Previous education and aptitude determine whether a student takes foreign language 101, 102 and/or 201 before taking 202 or higher. Courses below 202 will count as general electives.