

PROGRAM OF STUDY
BACCALAUREATE PROGRAM
SECONDARY SCIENCE EDUCATION



The Program of Study must be completed with, and signed by, your faculty advisor, and should be submitted to the *Office of Academic Programs* in room 1071.

Student Name _____ Faculty Advisor _____
W&M Student ID _____ Advisor Signature _____
Telephone _____ Date of Admission _____
Email _____ Date Program of Study Approved _____
Student Signature _____

Course	Title	Semester	Grade	Credit Hours
FIRST SEMESTER - SPRING				
EDUC 301	Educational Psychology			3
+EDUC 310	Social & Philosophical Foundations of American Education			2
EDUC 460	Content Reading & Writing			2
EDUC 461	Content Reading & Writing Practicum			1
				8
<i>+If exempted from EDUC 310 for any reason, the student must notify the Office of Professional Services in order to complete a required training module in Child Abuse Recognition and Reporting for Virginia licensure</i>				
SECOND SEMESTER - FALL				
EDUC 305	Designs for Technology – Enhanced Learning – Secondary			2
EDUC 309	Classroom Adaptations for Exceptional Students - Secondary Education			1
EDUC 311	Classroom Organization, Management and Discipline - Secondary Education			1
EDUC 312	Characteristics of Exceptional Student Populations			1
EDUC 315	Differentiating and Managing Diverse Classrooms Practicum: Secondary			1
EDUC 444	Curriculum & Instruction Methods (Science)			3
EDUC 436	Secondary Science Curriculum & Instruction Practicum			1
				10
Praxis Core Academic Skills for Educators Tests	<i>or acceptable substitution (must be passed before student teaching.)</i>			
		Date Taken:		Passed: Y or N

PROGRAM OF STUDY

BACCALAUREATE PROGRAM – SECONDARY SCIENCE EDUCATION

Course	Title	Semester	Grade	Credit Hours
THIRD SEMESTER SPRING	<i>Pre-requisite: Successful completion of all coursework and practica in program prior to the professional internship (EDUC 498)</i>			
EDUC 340	Assessment of Learning			1
EDUC 446	Instructional Planning in Secondary Science			2
EDUC 446P	Instructional Planning in Secondary Science - Practicum			1
EDUC 452	Secondary Curriculum & Instruction Seminar (Science)			1
EDUC 498	Internship in Supervised Teaching: Science			7
				12
		TOTAL HOURS		30
PRAXIS II	<i>must be passed before program completion</i> Date Taken:			Passed: Y or N
VCLA	Virginia Communication and Literacy Assessment <i>must be passed before program completion</i> Date Taken:			Passed: Y or N
ADDITIONAL REQUIREMENTS				
Application for Student Teaching		Date Filed:		
CPR/AED/First Aid Training for Virginia Licensure		Date Completed		

FOUR SEMESTER OPTION

The program of studies above illustrates the traditional three (3) semester sequence. Students also have the option of extending the program into a four (4) semester program. Students who pursue a four semester program may begin in a fall semester by taking EDUC 301 and/or EDUC 310.

GENERAL STUDIES REQUIREMENTS

BACCALAUREATE PROGRAM – SECONDARY SCIENCE EDUCATION

To teach biology, chemistry, earth and space science (geology), or physics in secondary schools, students must satisfy the requirements listed below:

AREA	COURSES	CREDITS	SEMESTER
Biology	A major in Biology (a minimum of 37 hours). In meeting the major requirements, students must include instruction in:		
	Botany		
	Zoology		
	Ecology		
	Physiology		
	Evolution		
	Genetics		
	Cell Biology		
	Microbiology		
	Biochemistry		
	Human Biology		
	One inorganic chemistry course with a lab (4 credit hours)		
	One organic chemistry course with a lab (4 credit hours)		
	A course in physics (4 credit hours)		
	At least one calculus course		

GENERAL STUDIES REQUIREMENTS

BACCALAUREATE PROGRAM – SECONDARY SCIENCE EDUCATION

AREA	COURSES	CREDITS	SEMESTER
Chemistry	A major in Chemistry (a minimum of 38 semester hours) In meeting the major requirements, students must include instruction in:		
	Inorganic Chemistry		
	Organic Chemistry		
	Analytical Chemistry		
	Physical Chemistry		
	Biochemistry		
	A minimum of 16 hours in non-chemistry sciences, including at least: one biology course one physics course		
	At least one course in calculus		
AREA	COURSES	CREDITS	SEMESTER
Earth Science	A major in Geology or Environmental Science (a minimum of 36 semester hours) In meeting the major requirements, students must include instruction in:		
	Astronomy (e.g., Physics 176)		
	Oceanography (Geology 306)		
	Meteorology		
	Natural Resources		
	A minimum of 16 hours in non-geology sciences, including at least: one biology course one chemistry course one physics course		
		At least one course in calculus	

GENERAL STUDIES REQUIREMENTS

BACCALAUREATE PROGRAM – SECONDARY SCIENCE EDUCATION

AREA	COURSES	CREDITS	SEMESTER
Physics	A major in Physics (a minimum of 32 semester hours). In fulfilling the physics major requirements, students must include the study of:		
	Classical mechanics		
	Electricity & Magnetism		
	Thermodynamics		
	Waves		
	Optics		
	Atomic and Nuclear physics		
	Radioactivity		
	Relativity		
	Quantum Mechanics		
	A minimum of 16 hours in non-physics sciences, including at least a course in Biology a course in Chemistry		
At least one course in Calculus and introductory differential equations			

DISCIPLINE	TOTAL NUMBER CREDIT HOURS
Biology	
Chemistry	
Earth Science	
Physics	
Math	