

MIDDLE-LEVEL SCIENCE (4-8), BACHELOR OF SCIENCE IN EDUCATION (BSED)

All candidates completing this program and student teaching are eligible to receive Pennsylvania certification after achieving a passing or qualifying score on Pennsylvania Department of Education required exam(s). If you are interested in teaching in another state, please contact the Department of Education in that state.

PROGRAM LEARNING OUTCOMES

The Learner and Learning - Young Adolescent Development (SRU UG 2, 3, 5, 9)

Middle Level Curriculum (SRU UG 2, 9)

Middle Level Philosophy and School Organization (SRU UG 5, 7, 8, 9)

Middle Level Instruction and Assessment (SRU UG 1, 2, 4, 6, 8, 10)

Middle Level Professional Roles (SRU UG 4, 5, 7, 8, 9)

Degree Program Writing Competency (SRU UG 1)

Related Links

Middle-Level Education - Science, BSED Program Page (<https://www.sru.edu/academics/majors-and-minors/middle-level-education-science/>)

Professional Licensure/Certification Page (<https://www.sru.edu/students/student-consumer-information/professional-licensure/>)

Curriculum Guide

GPA Requirement

GPA must be 3.0 or higher for Teacher Candidacy.

A 3.0 GPA and passing subject area assessment (PECT) or a 2.8 GPA and a *qualifying* passing subject area assessment (PECT) score (as determined by PDE) is required for certification.

Summary*

Code	Title	Hours
	Rock Studies 2 Requirements	42
	Other Basic Requirements	0-3
	Major Requirements	79

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Rock Studies 2 Requirements

Code	Title	Hours
The Rock		
SUBJ 139	Foundations of Academic Discovery ¹	3
ENGL 102	Critical Writing	3
ENGL 104	Critical Reading	3
STAT 152	Elementary Statistics I	3

Select one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
Subtotal		15

Integrated Inquiry

<i>Creative and Aesthetic Inquiry</i>		
Select 3 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
<i>Humanities Inquiry</i>		
HIST 180	Spotlight on the Past	3
<i>Social Science Inquiry</i>		
POLS 101	American National Government	3
<i>Natural Sciences Inquiry</i>		
SCI 101	Science of Life	3
<i>Physical Sciences Inquiry</i>		
SCI 102	Understanding the Physical World	3
Subtotal		15

Additional Rock Studies 2 Requirements (12 credits)

MATH 210	Mathematics for Elementary Teachers I	3
MATH 310	Mathematics for Elementary Teachers II	3
SPED 121	Overview of Special Education	3
Select one of the following:		3
HIST 151	Ancient World to the Age of Global Encounters	
HIST 152	Early Modern to Contemporary World	
HIST 201	Colonial US to the Civil War Era	
HIST 202	US Civil War Era to Present	

Total Hours 42

¹ Course offered in multiple subjects; cannot take course in first major subject.

Basic Math Requirement

Check with your adviser or a current degree audit report to see if you have been exempted from this course. The credit earned in this course will not be counted toward the 120 credit hour minimum needed to earn a degree.

Code	Title	Hours
Complete one of the following:		0-3
Meet required minimum SAT or ACT math score OR		
ESAP 110	Beginning Algebra	
Total Hours		0-3

DIVERSITY, EQUITY, AND INCLUSION REQUIREMENT

Students must take and pass a course with the Diversity, Equity, and Inclusion (DEI) designation prior to graduation. Students can meet this requirement by taking any DEI - designated course in any program at any time during their undergraduate career.

Major Requirements

- 40 major credits must be taken at SRU or PASSHE
- 40 major credits must be taken at the 300 level or above

- All grades in Professional Education & Specialization must be grades of "C" or above.

Code	Title	Hours
Middle Level Education		
SEFE 200	Introduction to Education, Teaching Methods and Field ¹	3
SEFE 230	Production and Utilization of Instructional Technology ¹	3
SEFE 251	Teaching Reading in the Content Areas Grades 4-8 ¹	3
SEFE 300	Middle Level Cognitive Development ¹	3
SEFE 326	ELL Strategies and Practice ¹	3
SEFE 338	Standards-Based Instruction & Assessment in the Inclusionary Classroom ¹	3
SEFE 342	Educational Psychology for Diverse Learners ¹	3
Choose one of the following:		3
SEFE 349	Teaching of Science in the Middle School ¹	
SEFE 576	Teaching Integrated Science and Mathematics for Middle and Secondary Education	
SEFE 370	Educational Measurements, Assessment and Evaluation ¹	3
SEFE 380	History and Philosophy of Education ¹	3
SEFE 426	Practicum in Middle-Level & Secondary Education	1
SEFE 456	Student Teaching - Middle Level Grades ^{1,2}	12
SPED 121	Overview of Special Education ^{1,3}	3
SPED 315	Special Education Issues in Diverse Secondary Classrooms ^{1,2}	3
Subtotal		49
Science Certification Specialization		
SCI 101	Science of Life ³	3
SCI 102	Understanding the Physical World ³	3
Select at least 24 credits from the following list:		24
BIOL 105	Environmental Biology	
BIOL 110	The Human Body: Fundamentals of Structure and Physiology	
BIOL 209	Human Anatomy and Physiology I	
CHEM 107 & CHEM 111	General Chemistry I and General Chemistry I Lab	
CHEM 108 & CHEM 112	General Chemistry II and General Chemistry II Lab	
EGEO 100 & EGEO 110	Environmental Geology and Environmental Geology Lab	
EGEO 121	Meteorology/Lab	
EGEO 131	Oceanography	
EGEO 201	Earth Materials and Processes/Lab	
PHYS 201	Elements of Physics I with Lab	
PHYS 202	Elements of Physics II/ Lab	
PHYS 317	Space Science	
Subtotal		30
Total Hours		79

¹ Course counts for 50% of Major requirements but not for Major GPA

² SPED 315 & SEFE 456 must be taken in the same semester.

³ Credits earned in these courses will be applied to Rock Studies 2.

* Some courses may require pre-requisites. Please see course descriptions to determine if there are any pre-requisites for that specific course.

Grades 4-6 Core Content Areas

- To meet the English Language Arts 12 credit Pennsylvania Department of Education requirements, students must complete SEFE 251 – Teaching Reading in the Content Areas Grades 4-8 if they have not completed ENGL 102.

Code	Title	Hours
Social Studies		
HIST 180	Spotlight on the Past ¹	3
POLS 101	American National Government ¹	3
SEFE 380	History and Philosophy of Education ²	3
Select one of the following:		3
HIST 151	Ancient World to the Age of Global Encounters ¹	
HIST 152	Early Modern to Contemporary World ¹	
HIST 201	Colonial US to the Civil War Era ¹	
HIST 202	US Civil War Era to Present ¹	
Subtotal		12
English/Language Arts		
ENGL 102	Critical Writing ¹	3
ENGL 104	Critical Reading ¹	3
ENGL 305	Practicum: Teaching Writing	3
ENGL 328	Young Adult Literature	3
Subtotal		12
Math		
MATH 118	Elementary Geometry	3
MATH 210	Mathematics for Elementary Teachers I ¹	3
MATH 310	Mathematics for Elementary Teachers II ¹	3
STAT 152	Elementary Statistics I ¹	3
Subtotal		12
Total Hours		36

¹ Credits earned in these courses will be applied to Rock Studies 2.

² SEFE 380 credit earned will be applied to Professional Core.

Prerequisites for Admission to Teacher Candidacy

- Teacher candidacy requires a minimum of 3.0 GPA with no basic skills or a 2.8 GPA with demonstration that basic skills have been met.

Code	Title	Hours
Basic Courses		
ENGL 102	Critical Writing	3
ENGL 104	Critical Reading	3
SEFE 200	Introduction to Education, Teaching Methods and Field	3

SEFE 230	Production and Utilization of Instructional Technology	3
SPED 121	Overview of Special Education	3
Math Requirement		
Select 6 credits from the following:		6
MATH 113	Mathematics as a Liberal Art	
MATH 115	Financial Mathematics	
MATH 117	Quantitative Reasoning	
MATH 118	Elementary Geometry	
MATH 120	Intermediate Algebra	
MATH 122	Finite Mathematics with Matrices	
MATH 123	Introduction to Applied Calculus	
MATH 125	Precalculus	
MATH 131	Discrete Mathematics	
MATH 225	Calculus I	
STAT 152	Elementary Statistics I	
Total Hours		21

Important Curriculum Guide Notes

This Curriculum Guide is provided to help SRU students and prospective students better understand their intended major curriculum. Enrolled SRU students should note that the My Rock Audit may place already-earned and/or in progress courses in different, yet valid, curriculum categories. Enrolled SRU students should use the My Rock Audit Report and materials and information provided by their faculty advisers to ensure accurate progress towards degree completion. *The information on this guide is current as of the date listed. Students are responsible for curriculum requirements at the time of enrollment at the University.*

PASSHE - Pennsylvania State System of Higher Education Institutions

MIDDLE-LEVEL SCIENCE (4-8) - BSED (1235)

This program is effective as of Summer 2023

Revised 05.03.2024

UCC 02.27.2024

Recommended Four-Year Plan

Course	Title	Hours
First Year		
Fall		
ENGL 102	Critical Writing	3
ESAP 101	FYRST Seminar *	1
HIST 180	Spotlight on the Past	3
SCI 101	Science of Life	3
STAT 152	Elementary Statistics I	3
SUBJ 139	Foundations of Academic Discovery ¹	3
Hours		16
Spring		
ENGL 104	Critical Reading	3
MATH 118	Elementary Geometry	3
SCI 102	Understanding the Physical World	3
SEFE 200	Introduction to Education, Teaching Methods and Field	3
Select one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	

PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
Hours		15
Second Year		
Fall		
SEFE 230	Production and Utilization of Instructional Technology	3
SPED 121	Overview of Special Education	3
POLS 101	American National Government	3
MATH 210	Mathematics for Elementary Teachers I	3
Science Course Major		3
Hours		15
Spring		
SEFE 326	ELL Strategies and Practice	3
Select one of the following:		3
HIST 151	Ancient World to the Age of Global Encounters	
HIST 152	Early Modern to Contemporary World	
HIST 201	Colonial US to the Civil War Era	
HIST 202	US Civil War Era to Present	
Science Course Major		3
Science Course Major		3
Science Course Major		3
Hours		15
Third Year		
Fall		
ENGL 328	Young Adult Literature	3
MATH 310	Mathematics for Elementary Teachers II	3
SEFE 370	Educational Measurements, Assessment and Evaluation	3
SEFE 380	History and Philosophy of Education	3
Creative & Aesthetic Inquiry (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Hours		15
Spring		
ENGL 305	Practicum: Teaching Writing	3
SEFE 300	Middle Level Cognitive Development	3
SEFE 342	Educational Psychology for Diverse Learners	3
Science Course Major		3
Science Course Major		3
Hours		15
Fourth Year		
Fall		
SEFE 251	Teaching Reading in the Content Areas Grades 4-8	3
SEFE 338	Standards-Based Instruction & Assessment in the Inclusionary Classroom	3
SEFE 349	Teaching of Science in the Middle School	3
SEFE 426	Practicum in Middle-Level & Secondary Education	1
Science Course Major		3

Science Course Major		3
Hours		16
Spring		
SEFE 456	Student Teaching - Middle Level Grades	12
SPED 315	Special Education Issues in Diverse Secondary Classrooms	3
Hours		15
Total Hours**		122

¹ Course offered in multiple subjects; cannot take course in first major subject

* Students are encouraged to take ESAP 101 as a Free Elective.

*** This document is meant to serve as a guide. Some planners may show more than 120 credits because faculty have created flexibility in choosing courses. However, only 120 credits are required to obtain a degree. Please consult with your academic adviser and refer to your curriculum guide prior to registering for courses. This plan should be reviewed, and verified, by you and your academic adviser at least once each academic year.*

Major Code: 1235

Revised: 09.12.2023