PHYSICS, BACHELOR OF ARTS (BA) - PRE-MASTER OF EDUCATION (7-12)

Curriculum Guide

GPA Requirement

Major GPA: 2.00 or higher
Overall GPA: 2.00 or higher

Summary*

Code	Title	Hours
Rock Studies 2 Requirements		45
Modern Language Requirements		0-9
Other Basic Requirements		0-3
Computer Competency		0-3
Major Requirements		39
Concentration Requirements		15
Natural Science and Math College-Wide Requirements		12
Electives		36

* 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
MATH 225	Calculus I	4
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		16
Integrated Inquiry		
Creative and Aesthetic Inquiry		
Select 3 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Humanities Inquiry		
Select 3 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Social Science Inquiry		
Select 3 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Natural Sciences Inquiry		
CHEM 107	General Chemistry I	3
CHEM 111	General Chemistry I Lab	1
Physical Sciences Inquiry		
PHYS 211	General Physics I with Lab	4
Subtotal		17

Code	Title	Hours
Thematic Thread		
Select 12 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/) [2]		12
Total Hours		**45**

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

[2] One course from each category; six credits must be 300-level or above; no more than 4 credits from one subject area; specific courses required in first major, regardless of prefix of course, cannot be used to satisfy thread requirements; any course with same prefix as first major cannot be used to satisfy thread requirements, even if it is not a course in the first major.

BA Modern Language Requirement

BA degree requires language proficiency at the 103 class level. Exemption by placement or examination is possible.

Code	Title	Hours
Complete 0-9 credits		0-9
Total Hours		**0-9**

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**

Computer Competency

Code	Title	Hours
Demonstrate "computer competency" by one of the following:		0-3
Pass Computer Competency Exam OR		
Select one of the following at SRU or another post-secondary institution:		
CPSC 100	Introduction to Computing for Liberal Arts	
CPSC 110	Computer Concepts	
CPSC 130	Introduction to Computing and Programming	
PE 202	Technology for Wellness	
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

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

Code	Title	Hours
Required Physics Courses		
PHYS 212	General Physics II with Lab [1]	3
PHYS 213	General Physics III/ Lab [1]	4
PHYS 312	Modern Physics 1 [1]	3
PHYS 314	Statics [1]	3
Select one of the following:		3
PHYS 331	Mathematical Methods of Physics [1]	
MATH 331	Mathematical Methods of Physics [1]	
Select one of the following:		2
PHYS 381	Advanced Physics Laboratory [1]	
PHYS 382	Optics Laboratory [1]	
PHYS 412	Modern Physics 2 [1]	1
Subtotal		19
Required Physics Electives		
Select two of the following:		6
PHYS 315	Dynamics [1]	
PHYS 375	Thermal Physics [1]	
PHYS 385	Computational Physics [1]	
PHYS 410	Electricity and Magnetism [1]	
PHYS 480	Quantum [1]	
Subtotal		6
Related Field Work		
CPSC 146	Programming Principles [1]	3
MATH 230	Calculus II [1,2]	4
MATH 231	Calculus III [1]	4
MATH 240	Linear Algebra and Differential Equations [1]	3
Subtotaal		14
Total Hours		**39**

[1]   Course counts for 50% of Major requirements and Major GPA
[2]   Course can be counted as a Rock Studies 2 Requirement, but earns credit only once toward your 120-credits total.
*   Some courses may require pre-requisites. Please see course descriptions to determine if there are any pre-requisites for that specific course.

Natural Science and Math College-Wide Requirements

Code	Title	Hours
CHEM 107	General Chemistry I [1]	3
CHEM 111	General Chemistry I Lab [1]	1
MATH 125	Precalculus [1]	4
or MATH 225	Calculus I	
PHYS 201	Elements of Physics I with Lab [1]	4
or PHYS 211	General Physics I with Lab	
Total Hours		**12**

[1]   Course can be counted as a Rock Studies 2 Requirement, but earns credit only once toward your 120-credits total.

Recommended Courses for Optional Physics Pre Masters in Education Major

Code	Title	Hours
SPED 121	Overview of Special Education	3
SEFE 338	Standards-Based Instruction & Assessment in the Inclusionary Classroom	3
BIOL 101	General Biology	3
or BIOL 105	Environmental Biology	
EGEO 100	Environmental Geology	3
or EGEO 101	Physical Geology	
PHYS 317	Space Science	3
Total Hours		**15**

PHYSICS - BA (6 64)
w/optional Pre Masters in Education (PX)
This program is effective as of Fall 2019.
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UCC 2.5.2019

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