

PHYSICS, BACHELOR OF SCIENCE (BS) - CONCENTRATION IN COMPUTATIONAL BIOPHYSICS

Recommended Four-Year Plan

Course	Title	Hours
First Year		
Fall		
ENGL 102	Critical Writing	3
ESAP 101	FIRST Seminar *	1
MATH 225	Calculus I	4
PHYS 211	General Physics I with Lab	4
SUBJ 139	Foundations of Academic Discovery ¹	3
Hours		15
Spring		
ENGL 104	Critical Reading	3
PHYS 213	General Physics III/ Lab	4
MATH 230	Calculus II	4
Rock Studies 2 Requirement (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Hours		14
Second Year		
Fall		
CHEM 107 & CHEM 111	General Chemistry I and General Chemistry I Lab	4
CPSC 146	Programming Principles	3
MATH 231	Calculus III	4
PHYS 212	General Physics II with Lab	3
Rock Studies 2 Requirement (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Declare a Thematic Thread ²		
Hours		17
Spring		
CHEM 108 & CHEM 112	General Chemistry II and General Chemistry II Lab	4
CPSC 246	Advanced Programming Principles	3
MATH 240	Linear Algebra and Differential Equations	3
MATH 301	Differential Equations 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	
Hours		16
Third Year		
Fall		
MATH 240	Linear Algebra and Differential Equations	3
PHYS 312	Modern Physics 1	3
PHYS 314	Statics	3

PHYS 331	Mathematical Methods of Physics	3
Rock Studies 2 Requirement (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Hours		15
Spring		
PHYS 375	Thermal Physics	3
PHYS 381 or PHYS 382	Advanced Physics Laboratory or Optics Laboratory	2
PHYS 412	Modern Physics 2	1
Technical Elective		3
Technical Elective		3
Physics Elective		3
Hours		15
Fourth Year		
Fall		
PHYS 371	Physical Optics	3
Rock Studies 2 Requirement (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Rock Studies 2 Requirement (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Technical Elective		3
Physics Elective		3
Hours		15
Spring		
PHYS 381 or PHYS 382	Advanced Physics Laboratory or Optics Laboratory	2
PHYS 410	Electricity and Magnetism	3
PHYS 480	Quantum	3
Rock Studies 2 Requirement (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/)		3
Technical Elective		2-3
Hours		13-14
Total Hours**		120-121

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

² Work with your Academic Adviser to declare a Thematic Thread by the end of your fall semester in your second year.

* 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: 6164
 Concentration Code: COBP
 Revised: 12-2019