

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

Recommended Rock Studies Four-Year Plan

Course	Title	Hours
First Year		
Fall		
ENGL 102	Critical Writing	3
MATH 225	Calculus I	4
PHYS 211	General Physics I with Lab	4
SUBJ 139	University Seminar ¹	3
INDS 101	FIRST Seminar	1
Hours		15
Spring		
ENGL 104	Critical Reading	3
PHYS 213	General Physics III/ Lab	4
MATH 230	Calculus II	4
RSP		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
Declare a Thematic Thread ²		
Hours		14
Spring		
CPSC 246	Advanced Programming Principles	3
MATH 240	Linear Algebra and Differential Equations	3
MATH 301	Differential Equations I	3
RSP		3
RSP		3
Hours		15
Third Year		
Fall		
Free Elective		3
RSP		3
PHYS 312	Modern Physics 1	3
PHYS 385	Computational Physics	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
Spring		
PHYS 315	Dynamics	3
PHYS 375	Thermal Physics	3
PHYS 381	Advanced Physics Laboratory	2
MATH 315	Numerical Mathematics	3
CPSC 374	Algorithms and Data Structures	3
PHYS 412	Modern Physics 2	1
Hours		15
Fourth Year		
Fall		
PHYS 490	Independent Study (Computational Physics Research)	1
PHYS 331	Mathematical Methods of Physics	3
RSP		3
Free Elective		3
RSP		3
Physics Elective		3
Hours		16
Spring		
Technical Elective		3
PHYS 410	Electricity and Magnetism	3
PHYS 480	Quantum	3
Free Elective		3
PHYS 490	Independent Study (Computational Physics Research)	1
RSP		3
Hours		16
Total Hours**		120

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

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

² Work with your Academic Adviser to declare a Thematic Thread by the end of your fall semester in your second year. Click here (<https://forms.office.com/Pages/ResponsePage.aspx?id=ul1VhjsH90-30bc6d8W9kIM7Wtmwv-VJnD6riXkdMh1UNEFHMUNHOE15TkJOWIRHVzRCMzI3UIdNTi4u>) to declare a thread.

Major Code: 6164
 Concentration: COPH
 Revised: 12-2019

** 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.