

**BACHELOR OF SCIENCE IN PHYSICS**

Catalogue

Major: Physics

2022-2023

Student: \_\_\_\_\_

Date: \_\_\_\_\_

netID: \_\_\_\_\_

Advisor: \_\_\_\_\_

**Year 1**

Semester 1	Cr	Status	Semester 2	Cr	Status
CEMS 1500 - CEMS First Year Seminar [Optional]	[1]		QD: MATH 1248 - Calculus II	4	
PHYS 1500 or 1600 - Phys for Engr/Fund of Phys I	4		PHYS 1550 and 1460, or PHYS 1650	4	
QD: MATH 1234 - Calculus I	4		WIL: (ENGL 1001, HCOL 1000) <sup>1</sup>	3	
CHEM 1400 - General Chemistry I	4		D1 / Humanities & Social Science Course	3	
Free Elective	3		CHEM 1450 - General Chemistry II	4	
PHYS 1510 - Physics Problem Solving I [Optional]	[1]				
<i>Total credits</i>	<i>15-17</i>		<i>Total credits</i>	<i>18</i>	

**Year 2**

Semester 1	Cr	Status	Semester 2	Cr	Status
QD: MATH 2248 - Calculus III	4		QD: MATH 2522 or 2544 - (Applied) Linear Algebra	3	
PHYS 2500 - Waves and Quanta	4		PHYS 2200 - Classical Mechanics	3	
Concentration Course <sup>1</sup>	3		Concentration Course <sup>1</sup>	3	
Humanities & Social Science Course <sup>2</sup>	3		Humanities & Social Science Course <sup>2</sup>	3	
Sustainability	3		D1/D2	3	
<i>Total credits</i>	<i>17</i>		<i>Total credits</i>	<i>15</i>	

**Year 3**

Semester 1	Cr	Status	Semester 2	Cr	Status
PHYS 3300 - Electricity and Magnetism	3		Concentration Course <sup>1</sup>	3	
PHYS 3150 or CS 1210 - Comp. Physics/Progam. I	3		Concentration Course <sup>1</sup>	3	
Humanities & Social Science Course <sup>2</sup>	3		Concentration Course <sup>1</sup>	3	
QD: MATH 3230 - Ordinary Differential Equations	3		Humanities & Social Science Course <sup>2</sup>	3	
Concentration Course <sup>1</sup>	3		Humanities & Social Science Course <sup>2</sup>	3	
<i>Total credits</i>	<i>15</i>		<i>Total credits</i>	<i>15</i>	

**Year 4**

Semester 1	Cr	Status	Semester 2	Cr	Status
PHYS 3500 - Quantum Mechanics I	3		PHYS 4500 - Applications of Quantum Mechanics	3	
Concentration Course <sup>1</sup> /Free Elective	3		Humanities & Social Science Course <sup>2</sup>	3	
Concentration Course <sup>1</sup> /Free Elective	3		Concentration Course <sup>1</sup> /Free Elective	3	
Concentration Course <sup>1</sup> /Free Elective	3		Humanities & Social Science Course <sup>2</sup>	3	
<i>Total credits</i>	<i>12</i>		<i>Total credits</i>	<i>12</i>	

**Minimum Total Credits Required for Degree: 120**

Utilize degree audit or re-numbering widget (bit.ly/UVMWidget) to confirm courses.

\*1. See the different concentration options in the catalogue. These include Pure Physics, Mechanical Engineering, Civil and Environmental Engineering, Electrical Engineering (Signals and Systems or Circuits and Devices), or Astrophysics.

2. Humanities & Social Sciences: Twenty-four credits of courses selected from Categories I, II, and III listed in the Catalogue (I: Language & Literature, II: Humanities & Fine Arts, III: Social Sciences). See Catalogue for full list of courses.

Students are encouraged to use these courses to fulfill the University Requirements - Diversity (D1/D2), Sustainability (SU), and Foundational Writing & Information Literacy (FWIL). Note the Quantitative (QR) reasoning is fulfilled by core courses.

**This document is an advising tool and should be used in combination with a student's degree audit, as well as the published Catalogue for 2022-2023 found at <http://catalogue.uvm.edu/>**