

BACHELOR OF SCIENCE IN PHYSICS - PHYSICS OF LIVING SYSTEMS

Code	Title	Credit Hours
Wellness Requirement		
APPH 1040	Scientific Foundations of Health or APPH 10 The Science of Physical Activity and Health or APPH 10 Flourishing: Strategies for Well-being and Resilience	2
Core IMPACTS		
Institutional Priority		
CS 1301	Introduction to Computing or CS 1371 Computing for Engineers	3
Mathematics and Quantitative Skills		
MATH 1552	Integral Calculus	4
Political Science and U.S. History		
HIST 2111	The United States to 1877 or HIST 2112 The United States since 1877 or INTA 1200 American Government in Comparative Perspective or POL 1101 Government of the United States or PUBP 3000 American Constitutional Issues	3
Arts, Humanities, and Ethics		
Any HUM		6
Communicating in Writing		
ENGL 1101	English Composition I	3
ENGL 1102	English Composition II	3
Technology, Mathematics, and Sciences		
PHYS 2211	Principles of Physics I ¹	4
PHYS 2212	Principles of Physics II ⁶	4
MATH 1551	Differential Calculus	2
MATH 1553	Introduction to Linear Algebra or MATH 1554 Linear Algebra or MATH 1555 Linear Algebra with Abstract Vector Spaces	2
Social Sciences		
Any SS		9
Field of Study		
MATH 2551	Multivariable Calculus	4
MATH 2552	Differential Equations	4
CHEM 1310	Principles of General Chemistry for Engineers or CHEM 1201 Chemical Principles I	4
PHYS 2213	Introduction to Modern Physics	3
Any PHYS 2XXX not specified or MATH 2106		3
Upper-Level Physics		
PHYS 3122	Electrostatics and Magnetostatics	3
PHYS 3123	Electrodynamics	3
PHYS 3141	Thermodynamics	3
PHYS 3143	Quantum Mechanics I	3
PHYS 3201	Classical Mechanics I	3
PHYS 4142	Statistical Mechanics	3

PHYS 4143	Quantum Mechanics II	3
PHYS 4321	Advanced Laboratory I	3
PHYS 4604	Professional Development	1
PHYS 4605	Scientific Communication	1

Physics of Living Systems Concentration

Select 12 hours from the following courses:	12
PHYS 3120 Computational Physics	
PHYS 3207 Living Systems Laboratory	
PHYS 4250 Neurophysics	
PHYS 4251 Biophysics	
PHYS 4301 Cell and Tissue Biophysics	
PHYS 4699 Undergraduate Research	
PHYS 4745 Physics of Cognition	
PHYS 4801 Special Topics or PHYS Special Topics or PHYS Special Topics or PHYS Special Topics	

Physics or Technical Electives

Any PHYS or Technical Electives ^{2,3,4,5}	6
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Free Electives

Free Electives	15
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Total Credit Hours 122

Student must have 2.0 in all PHYS classes 3000-level or higher

Pass-Fail only allowed for Free Electives

¹ If PHYS 2231 is taken, extra hour goes toward Physics or Technical Electives

² Any PHYS course or CHEM 3411, CHEM 3412, CHEM 3511, EAS 2750, EAS 4300, EAS 4430, MATH 2106, MATH 3215, MATH 3235, MATH 4320, MATH 4347 MATH 4348, MATH 4581, NRE 3301, NRE 4610

³ Minimum of one class in PHYS 3207, PHYS 3208, PHYS 3209, PHYS 4322, PHYS 4250.

⁴ PHYS 4801, PHYS 4802, PHYS 4803, PHYS 4804, with permission. Maximum of 6 credit hours.

⁵ Maximum of 4 hours of PHYS 4699

⁶ If PHYS 2232 is taken, extra hour goes toward Physics or Technical Electives