

PHYSICS EDUCATION 6-12 (B.ED.) - EARTH SCIENCE - ONLINE

Important: This degree plan is effective for those starting this degree program in fall 2020 through summer 2021. This degree plan will remain in effect for students who do not break enrollment or who do not change degree programs, concentrations, or cognates.

After completion of the required program coursework (including student teaching) and the passing of licensure tests, the graduate of this program would be eligible for a VA state teaching license.

General Education/Foundational Skills Requirements

Code	Title	Hours
Communication & Information Literacy ¹		
COMS 101	Speech Communication	3
ENGL 101	Composition and Rhetoric	3
HIUS 221	Survey of American History I	3
	Information Literacy Elective	3
Technological Solutions & Quantitative Reasoning ¹		
UNIV 104	Instructional Technology for Successful Online Learning	0-3
	MATH Elective	3
Critical Thinking ¹		
ENGL 201	American Literature I	3
RLGN 104	Christian Life and Biblical Worldview ²	4
Civic & Global Engagement ¹		
CSTU 101	Western Culture	3
Social & Scientific Inquiry ¹		
PSYC 210	Developmental Psychology	3
	Natural Science Elective	3
Christianity & Contexts ¹		
BIBL 104	Survey of Old and New Testament	4
THEO 104	Introduction to Theology Survey ²	4
Total Hours		39-42

¹ Refer to the list of approved general education electives before enrolling in foundational skills requirements

² Students transferring in 45 or more UG credit hours will have the requirements of RLGN 105 Introduction to Biblical Worldview (2 c.h.) and EVAN 101 Evangelism and the Christian Life (2 c.h.) waived; Students transferring in 60 or more UG credit hours will also have the requirements of THEO 201 Theology Survey I (2 c.h.) and THEO 202 Theology Survey II (2 c.h.) waived

Major Requirements

Code	Title	Hours
Major Foundational Courses		
ENGL 102	Composition and Literature ¹	3
MATH 131	Calculus and Analytic Geometry I ¹	4

Code	Title	Hours
PHYS 231	University Physics I ¹	4
Total Hours		11

¹ Course may fulfill select general education requirements

Code	Title	Hours
Major Core		
<i>Education Courses</i>		
EDSC 419	Teaching Science Content Methods for the Middle and Secondary School	3
EDUC 201	Introduction to Education and Classroom Technology	3
EDUC 221	Content Area Reading and Differentiated Teaching and Learning	2
EDUC 235	Content Instructional Design	1
EDUC 350	Behavior and Individual Differences	3
EDUC 360	Foundations of Education	2-3
EDUC 425	Content Measurement and Evaluation	3
EDUC 435	Content Curriculum Fundamentals	2
<i>Practicum and Gate Courses</i>		
EDGT 175		
EDGT 275		
EDGT 375		
EDUC 188	Practicum in Education I: External	0
EDUC 388	Practicum in Education III: External	0
EDUC 488	Practicum in Middle Education: External	0
<i>Secondary Courses</i>		
BIOL 101	Principles of Biology	3
CHEM 108	Chemistry for Nursing Professionals	4
MATH 132	Calculus and Analytic Geometry II	4
MATH 410	Matrix and Linear Algebra	3
PHYS 232	University Physics II	4
PHYS 305	Introduction to Modern Physics	3
PHYS 310	Numerical Methods Physics	3
PHYS 321	Mechanics	3
PHYS 331	Electricity and Magnetism	3
PHYS 432	Thermodynamics and Statistical Mechanics	3
PHYS 440	Wave Optics	4
<i>Student Teaching</i>		
EDST 475	The Reflective Educator: Resource Seminar	3
EDST 480	Supervised Student Teaching: External	9
or EDST 481	Supervised Student Teaching: Local	
Total Hours		68-69

Code	Title	Hours
Concentration		
PHSC 121	Introduction to Astronomy	3
PHSC 122	Elements of Astronomy Lab	1
PHSC 210	Elements of Earth Science	3
PHSC 211	Elements of Earth Science Lab	1
PHSC 311	Oceanography	3
PHSC 312	Meteorology	3

Code	Title	Hours
PHSC 313	Mineralogy and Petrology	4
Total Hours		18

All applicable prerequisites must be met

Graduation Requirements

- **130** Total Hours
- **3.0** Overall grade point average
- **32.5** Hours must be upper-level courses (300-400 level)
- **Grade of 'C'** Minimum required for all upper-level courses in the major
- **25%** Of major taken through Liberty University
- **32.5** Hours must be completed through Liberty University
- **Grad App** Submission of Degree Completion Application must be completed within the last semester of a student's anticipated graduation date