

PHYSICS (B.S.) - ONLINE

Important: This degree plan is effective for those starting this degree program in fall 2024 through summer 2025. This degree plan will remain in effect for students who do not break enrollment or who do not change degree programs, concentrations, or cognates.

General Education/Foundational Skills Requirements

Code	Title	Hours
Communication & Information Literacy ¹		
ENGL 101	Composition and Rhetoric	3
	Communications Elective	3
	Information Literacy Elective	3
	Information Literacy Elective	3
Technological Solutions & Quantitative Reasoning ¹		
UNIV 104	Instructional Technology for Successful Online Learning	0-3
	Math Elective MATH 114 or higher	3
Critical Thinking ¹		
RLGN 104	Christian Life and Biblical Worldview ²	4
	Critical Thinking Elective	3
Civic & Global Engagement ¹		
	Cultural Studies Elective	3
Social & Scientific Inquiry ¹		
	Natural Science Elective	3
	Social 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 skill requirements

² Students transferring in 45 or more UG credit hours will have the requirement of RLGN 104 waived; Students transferring in 60 or more UG credit hours will also have the requirement of THEO 104 waived

Major Requirements

Code	Title	Hours
Major Foundational Courses		
ENGL 103	Technical Communication for the Professions ¹	3
MATH 131	Calculus and Analytic Geometry I ¹	4
PHYS 231	University Physics I ¹	4
Total Hours		11

¹ Course may fulfill select general education requirements

Code	Title	Hours
Major Core		
MATH 132	Calculus and Analytic Geometry II	4
MATH 410	Matrix and Linear Algebra	3

Code	Title	Hours
MATH 430	Multivariable Calculus	3
MATH 432	Applied Differential Equations	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 433	Quantum Physics	3
PHYS 440	Wave Optics	4
PHYS 491	Physics Capstone	3

Total Hours **42**

Code	Title	Hours
Free Electives		
	Choose 25-39 credit hours of Free Electives	25-39
Total Hours		25-39

All applicable prerequisites must be met

Graduation Requirements

- 120 Total hours
- 2.0 Overall grade point average
- 30 Hours must be upper-level courses (300-400 level)
- **Grade of 'C'** Minimum required for all major foundational courses and all upper-level courses in the major
- 25% Of major taken through Liberty University
- 30 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

Course Sequence

Course	Title	Hours
First Year		
First Semester		
BIBL 104	Survey of Old and New Testament	4
ENGL 101	Composition and Rhetoric	3
UNIV 104	Instructional Technology for Successful Online Learning	0-3
	Communications Elective ¹	3
	MATH Elective (MATH 131) ¹	4
Hours		14-17
Second Semester		
RLGN 104	Christian Life and Biblical Worldview	4
	Critical Thinking Elective ¹	3
	Information Literacy Elective (ENGL 103) ¹	3
	Social Science Elective ¹	3
MATH 132	Calculus and Analytic Geometry II	4
Hours		17
Second Year		
First Semester		
	Information Literacy Elective ¹	3

Course	Title	Hours
Natural Science Elective (PHYS 231) ¹		4
MATH 430	Multivariable Calculus	3
Elective		3
Elective		3
Hours		16
Second Semester		
THEO 104	Introduction to Theology Survey	4
Cultural Studies Elective ¹		3
PHYS 232	University Physics II	4
Elective		3
Elective		1
Hours		15
Third Year		
First Semester		
MATH 410	Matrix and Linear Algebra	3
MATH 432	Applied Differential Equations	3
PHYS 305	Introduction to Modern Physics	3
Elective		3
Elective		3
Hours		15
Second Semester		
PHYS 310	Numerical Methods in Physics	3
PHYS 321	Mechanics	3
PHYS 331	Electricity and Magnetism	3
Elective		3
Elective		3
Hours		15
Fourth Year		
First Semester		
PHYS 432	Thermodynamics and Statistical Mechanics	3
PHYS 433	Quantum Physics	3
PHYS 440	Wave Optics	4
Elective		3
Hours		13
Second Semester		
PHYS 491	Physics Capstone	3
Elective		3
Elective		3
Elective		3
Elective		3
Hours		15
Total Hours		120-123

¹ Refer to the list of approved general education electives at www.liberty.edu/gened before enrolling foundational skills requirements.