

# LIBERTY

## UNIVERSITY.

### ONLINE

## Bachelor of Science in Physics

### 2021-2022 Degree Completion Plan

**Important:** This degree plan is effective for those starting this degree program in fall 2021 through summer 2022. 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 (39-42 hours)

Course		Hrs	Sem	Grade
<b>Communication &amp; Information Literacy (12 hours)<sup>1</sup></b>				
ENGL 101	Composition & Rhetoric	3	_____	_____
_____	Communications Elective	3	_____	_____
_____	Information Literacy Elective	3	_____	_____
_____	Information Literacy Elective	3	_____	_____

#### Technological Solutions & Quantitative Reasoning (3-6 hours)<sup>1</sup>

UNIV 104	Instructional Tech. for Online Learning	0-3	_____	_____
MATH _____	Math Elective (MATH 114 or higher)	3	_____	_____

#### Critical Thinking (7 hours)<sup>1</sup>

RLGN 104	Christian Life & Biblical Worldview <sup>2</sup>	4	_____	_____
_____	Critical Thinking Elective	3	_____	_____

#### Civic & Global Engagement (3 hours)<sup>1</sup>

_____	Cultural Studies Elective	3	_____	_____
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#### Social & Scientific Inquiry (6 hours)<sup>1</sup>

_____	Natural Science Elective	3	_____	_____
_____	Social Science Elective	3	_____	_____

#### Christianity & Contexts (8 hours)<sup>1</sup>

BIBL 104	Survey of Old & New Testament	4	_____	_____
THEO 104	Introduction to Theology Survey <sup>2</sup>	4	_____	_____

Course		Hrs	Sem	Grade
<b>Major Foundational Courses (0-11 hours)</b>				
ENGL 103	Tech. Communication for the Professions <sup>3</sup>	3	_____	_____
MATH 131	Calculus & Analytic Geometry I <sup>3</sup>	4	_____	_____
PHYS 231	University Physics I <sup>3</sup>	4	_____	_____

#### MAJOR

<b>Core (39 hours)</b>				
MATH 132	Calculus & Analytic Geometry II	4	_____	_____
MATH 410	Matrix & Linear Algebra	3	_____	_____
MATH 430	Multivariable Calculus	3	_____	_____
PHYS 232	University Physics II	4	_____	_____
PHYS 305	Introduction to Modern Physics	3	_____	_____
PHYS 310	Numerical Methods in Physics	3	_____	_____
PHYS 321	Mechanics	3	_____	_____
PHYS 331	Electricity & Magnetism	3	_____	_____
PHYS 432	Thermodynamics & Statistical Mechanics	3	_____	_____
PHYS 433	Quantum Physics	3	_____	_____
PHYS 440	Wave Optics	4	_____	_____
PHYS 491	Physics Capstone	3	_____	_____

#### FREE ELECTIVES (28-42 hours)

_____	_____	-	_____	_____
_____	_____	-	_____	_____
_____	_____	-	_____	_____
_____	_____	-	_____	_____

#### 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

#### Notes

- All applicable prerequisites must be met
- <sup>1</sup>Refer to the list of approved general education electives at [www.liberty.edu/gened](http://www.liberty.edu/gened) before enrolling in foundational skills requirements
- <sup>2</sup>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
- <sup>3</sup>Courses may also fulfill select General Education Requirements. Please refer to the list of approved general education electives at [www.liberty.edu/gened](http://www.liberty.edu/gened)
- Suggested Course Sequence on second page*

## SUGGESTED COURSE SEQUENCE

### FIRST YEAR

First Semester		Second Semester	
BIBL 104	4	RLGN 104	4
ENGL 101	3	Critical Thinking Elective <sup>1</sup>	3
UNIV 104	0-3	Information Literacy Elective <sup>1</sup> [ENGL 103]	3
Communications Elective <sup>1</sup>	3	Social Science Elective <sup>1</sup>	3
Math Elective <sup>1</sup> [MATH 131]	<u>4</u>	MATH 132	<u>4</u>
	Total 14-17		Total 17

### SECOND YEAR

Information Literacy Elective <sup>1</sup>	3	THEO 104	4
Natural Science Elective <sup>1</sup> [PHYS 231]	4	Cultural Studies Elective <sup>1</sup>	3
Elective	3	PHYS 232	4
Elective	3	Elective	3
Elective	<u>3</u>	Elective	<u>1</u>
	Total 16		Total 15

### THIRD YEAR

MATH 410	3	MATH 430	3
PHYS 305	3	PHYS 321	3
PHYS 310	3	PHYS 331	3
Elective	3	Elective	3
Elective	<u>3</u>	Elective	<u>3</u>
	Total 15		Total 15

### FOURTH YEAR

PHYS 432	3	PHYS 491	3
PHYS 433	3	Elective	3
PHYS 440	4	Elective	3
Elective	<u>3</u>	Elective	3
	Total 13	Elective	<u>3</u>
			Total 15

#### Notes

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