

# PHYSICS (B.S.) - 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.

## General Education/Foundational Skills Requirements

| Code   | Title   | Hours |
|--|---|-------|
| <b>Communication &amp; Information Literacy <sup>1</sup></b>             |   |       |
| ENGL 101   | Composition and Rhetoric                                | 3     |
|  | Communications Elective                                 | 3     |
|  | Information Literacy Elective                           | 3     |
|  | Information Literacy Elective                           | 3     |
| <b>Technological Solutions &amp; Quantitative Reasoning <sup>1</sup></b> |   |       |
| UNIV 104   | Instructional Technology for Successful Online Learning | 0-3   |
|  | Math Elective MATH 114 or higher                        | 3     |
| <b>Critical Thinking <sup>1</sup></b>                                    |   |       |
| RLGN 104   | Christian Life and Biblical Worldview <sup>2</sup>      | 4     |
|  | Critical Thinking Elective                              | 3     |
| <b>Civic &amp; Global Engagement <sup>1</sup></b>                        |   |       |
|  | Cultural Studies Elective                               | 3     |
| <b>Social &amp; Scientific Inquiry <sup>1</sup></b>                      |   |       |
|  | Natural Science Elective                                | 3     |
|  | Social Science Elective                                 | 3     |
| <b>Christianity &amp; Contexts <sup>1</sup></b>                          |   |       |
| BIBL 104   | Survey of Old and New Testament                         | 4     |
| THEO 104   | Introduction to Theology Survey <sup>2</sup>            | 4     |
| Total Hours  |   | 39-42 |

<sup>1</sup> Refer to the list of approved general education electives before enrolling in foundational skill requirements

<sup>2</sup> Students transferring in 45 or more UG credit hours will have the requirement of RLGN 104 Christian Life and Biblical Worldview (4 c.h.) waived; Students transferring in 60 or more UG credit hours will also have the requirement of THEO 104 Introduction to Theology Survey (4 c.h.) waived

## Major Requirements

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

<sup>1</sup> Course may fulfill select general education requirements

| Code              | Title                             | Hours |
|-------------------|-----------------------------------|-------|
| <b>Major Core</b> |                                   |       |
| MATH 132          | Calculus and Analytic Geometry II | 4     |
| MATH 410          | Matrix and Linear Algebra         | 3     |

| Code        | Title                                    | Hours |
|-------------|--|-------|
| MATH 430    | Multivariable Calculus                   | 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 |  | 39    |

| Code  | Title | Hours |
|---|-------|-------|
| <b>Free Electives</b>                       |       |       |
| Choose 28-42 credit hours of Free Electives |       | 28-42 |
| Total Hours                                 |       | 28-42 |

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