

# Physics B.A.

Click here to view the Suggested Plan of Study (p. 2)

## GENERAL EDUCATION FOUNDATIONS

Please use this link to view a list of courses that meet each GEF requirement. (<http://registrar.wvu.edu/gef>)

NOTE: Some major requirements will fulfill specific GEF requirements. Please see the curriculum requirements listed below for details on which GEFs you will need to select.

### General Education Foundations

F1 - Composition & Rhetoric		3-6
ENGL 101 & ENGL 102 or ENGL 103	Introduction to Composition and Rhetoric and Composition, Rhetoric, and Research Accelerated Academic Writing	
F2A/F2B - Science & Technology		4-6
F3 - Math & Quantitative Skills		3-4
F4 - Society & Connections		3
F5 - Human Inquiry & the Past		3
F6 - The Arts & Creativity		3
F7 - Global Studies & Diversity		3
F8 - Focus (may be satisfied by completion of a minor, double major, or dual degree)		9
Total Hours		31-37

Please note that not all of the GEF courses are offered at all campuses. Students should consult with their advisor or academic department regarding the GEF course offerings available at their campus.

## Degree Requirements

Students must complete WVU General Education Foundations requirements, College B.A. requirements, major requirements, and electives to total a minimum of 120 hours. For complete details on these requirements, visit the B.A. Degrees tab on the Eberly College of Arts and Sciences (<http://catalog.wvu.edu/undergraduate/eberlycollegeofartsandsciences/#bachelorofartstext>) page.

## Departmental Requirements for the B.A. in Physics

Students may not earn both a B.A. and a B.S. in Physics. All students wishing to obtain a B.A. degree in Physics must comply with the following:

- **Calculation of the GPA in the Major:** Students must maintain at least a minimum cumulative 2.2 GPA is required in all PHYS and MATH courses. If a course is repeated, all attempts will be included in the calculation of the GPA unless the course is eligible for a D/F repeat.
- **Writing and Communication Skills Requirement:** Physics Bachelor of Arts students fulfill the Writing and Communication Skills requirement by completing ENGL 101 and ENGL 102 (or ENGL 103), and two of the following **SpeakWrite Certified Courses™**: PHYS 199, PHYS 341, PHYS 496, ASTR 469.
- **Capstone Requirement:** The university requires the successful completion of a Capstone course. Students majoring in Physics must complete PHYS 496.
- **Benchmark Expectations:** For details, go to the Physics admissions tab (<http://catalog.wvu.edu/undergraduate/eberlycollegeofartsandsciences/physicsastronomyandphysicalscience/#admissionstext>).

## Curriculum Requirements

<b>UNIVERSITY REQUIREMENTS</b>	22
PHYS 199	Orientation to Physics (meets WVU First Year Seminar requirement)
GEF Requirements (may vary depending on overlap)	
<b>ECAS B.A. Requirements</b>	18
Fine Arts Requirement (GEF 6)	
Foreign Language	
Global Studies and Diversity Requirement (GEF 7)	

**DEPARTMENTAL REQUIREMENTS**

<b>Physics Foundation Courses</b>		<b>11</b>
PHYS 111	General Physics	
PHYS 112	General Physics	
PHYS 211	Introduction to Mathematical Physics	
<b>Advanced Physics Courses</b>		<b>16</b>
PHYS 314	Introductory Modern Physics	
Three additional Physics or Astronomy courses (9 hours minimum) at the 300 or 400-level *		
PHYS 341 or PHYS 376	Advanced Laboratory Research Methods	
<b>Science Requirement</b>		<b>8</b>
8 credits from Biology, Chemistry, Computer Science, or Geology		
<b>Mathematics Requirement</b>		<b>15</b>
MATH 155 or MATH 153 & MATH 154	Calculus 1 Calculus 1a with Precalculus and Calculus 1b with Precalculus	
MATH 156	Calculus 2	
MATH 251	Multivariable Calculus	
MATH 261	Elementary Differential Equations **	
or	any mathematics course at the 300 or 400 level**	
<b>Capstone Experience</b>		<b>3</b>
PHYS 496	Senior Thesis	
<b>GENERAL ELECTIVES ***</b>		<b>27</b>
Number may vary depending on overlap		
Total Hours		<b>120</b>

\* No more than 3 hours may be chosen from PHYS 490, 491, 494, 495, or 497

\*\* Choose either Math 261 or any mathematics course at the 300 or 400 level, excluding Math 490, 494, 495, 497

\*\*\* The Physics B.A. is designed to prepare students for a career that utilizes physics preparation in conjunction with an applied emphasis. Some common examples are teaching, science journalism, medicine or patent law. Students work with their advisors to choose complementary courses tailored to suit the student's career aspirations. These hours are completed within the block of elective hours.

**Suggested Plan of Study****First Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
PHYS 199 (First Year Seminar)	1 Foreign Language 102	3
Foreign Language 101	3 MATH 156 (GEF 8)	4
MATH 155 (GEF 3)	4 PHYS 111 (GEF 8)	4
Science Elective 1	4 Science Elective 2	4
General Elective	3	
	15	15

**Second Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Foreign Language 203	3 Foreign Language 204	3
GEF 4	3 PHYS 211	3
MATH 251	4 PHYS 314	4
PHYS 112	4 General Elective	4
	General Elective	1
	14	15

**Third Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ENGL 101 (GEF 1)	3 ENGL 102 (GEF 1)	3
GEF 5	3 ECAS Global Studies and Diversity Requirement (GEF 7)	3

PHYS Elective 1	3 MATH 261 (or 300- or 400-level MATH class)	4
General Elective	3 PHYS 341 or 376	3
General Elective	3 General Elective	3
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	15	16

**Fourth Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ECAS Fine Arts Requirement (GEF 6)	3 PHYS 496	3
PHYS Elective 2	3 General Elective	4
PHYS Elective 3	3 General Elective	4
General Elective	3 General Elective	4
General Elective	3	
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	15	15

Total credit hours: 120