

**BEREA COLLEGE**  
**2009 – 2010 CURRICULUM GUIDE (as of 10/29/09)**

**B.A. in PHYSICS**

**NOTE:** This guide is subject to change and represents actions approved by Faculty to date. Please refer often to the *2009-2010 Online Catalog & Student Handbook (www.berea.edu/cataloghandbook)*, which will be updated with the most current information.

**GENERAL EDUCATION PROGRAM**

**Core Courses**

	<u>Term</u>	<u>Credit</u>
MAT 010: Prealgebra <sup>a</sup>	_____	NC
MAT 011: Elementary Algebra I <sup>a</sup>	_____	NC
MAT 012: Elementary Algebra II <sup>a</sup>	_____	NC
GSTR 110: Writing Sem. I: Critical Thinking in the Liberal Arts	_____	1
GSTR 210: Writing Sem. II: Identity and Diversity in the United States	_____	1
GSTR 310: Understandings of Christianity	_____	1
GSTR 332: Scientific Knowledge & Inquiry	_____	1
GSTR 410: Sr. Sem. in Cont. Global Issues	_____	1

**Lifetime Health & Fitness: PEH 100 & Phys. Activity**

PEH 100: Introduction to Lifetime Wellness	_____	.50
<i>(if swimming proficiency test not passed, one of next two courses must be PED 200)</i>		
PED 2____:	_____	.25
PED 2____:	_____	.25

**Practical Reasoning Across the Curriculum (PR & PRQ)**

Two courses—at least one firmly grounded in math or statistics (PRQ); the other can be an approved practical reasoning (PR) course or another PRQ course.

_____:	_____	1
_____:	_____	1

**Perspectives—Six Areas Required**

Students will satisfy each of the six Perspective areas by taking or waiving a course, or through an approved experience. Individual courses may be approved to satisfy more than one Perspective, but no single course may satisfy more than two Perspective areas.

1. Arts \_\_\_\_\_
2. Social Science \_\_\_\_\_
3. Western History \_\_\_\_\_
4. Religion \_\_\_\_\_
5. Afr. Amer., Appal., Women's \_\_\_\_\_
6. International (two courses either in area 6A or area 6B):
  - A) Same Non-English Language \_\_\_\_\_
  - Same Non-English Language \_\_\_\_\_
  - (one course may be waived by placement exam)
  - OR**
  - B) World Culture (Non-western) \_\_\_\_\_
  - World Culture (Western/non-western) \_\_\_\_\_

**Active Learning Experience (ALE)**

An approved experience, taken for credit or as noncredit.

_____:	_____	_____
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**Writing Competency Requirement (thru Spring 2009)**

**(NOTE: Required for students entering in/before Spring 2009—not required for those entering in/after Fall 2009)**

Students may satisfy this requirement by passing the Writing Competency Examination administered in Fall and Spring, or by successfully completing GST 150: College Composition or ENG 104: Advanced ESL.

_____:	_____	_____
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<sup>a</sup>May be waived on basis of test scores.

**MAJOR COURSES**

**Core Courses**

	<u>Term</u>	<u>Credit</u>
<b>Minimum of 9.25 PHY credits above 218 level, as follows:</b>		
PHY 315: Intro. Physics I w/Calculus	_____	1
PHY 316: Intro. Physics II w/Calculus	_____	1
PHY 320: Modern Physics	_____	1
PHY 460: Electromagnetic Theory	_____	1
PHY 481: Classical Mechanics	_____	1
PHY 482: Quantum Physics	_____	1

**Capstone Course**

PHY 492: Physics Seminar (Capstone)	_____	.25
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**Distribution Courses (Required; count inside the major)**

Three (3) additional PHY 200-400 level course credits:

PHY _____:	_____	1
PHY _____:	_____	1
PHY _____:	_____	1

**Collateral Courses (Required; count outside the major)**

MAT 135: Calculus I (or waiver)	_____	1
MAT 225: Calculus II (or waiver)	_____	1
MAT 330: Calculus III	_____	1
MAT 437: Differential Equations	_____	1

**SHORT TERMS**

<u>Dept. &amp; No.</u>	<u>Title</u>	<u>Term</u>	<u>Credit</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**ELECTIVES (count in 21 credits outside the major, unless in the PHY rubric)**

<u>Dept. &amp; No.</u>	<u>Title</u>	<u>Term</u>	<u>Credit</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**Exploring the Major and Admission to the Major**

**Guidelines:** First-year prospective Physics majors will be placed in the introductory Physics courses, depending on the student's mathematics preparation. Students should follow either: MAT 115 or 125 with PHY 217/218, or MAT 135 with PHY 315/316, as described in Course Sequencing in the Physics Major description in the *Catalog & Student Handbook*.

Students should earn a grade of C or higher in PHY 315, 316, and MAT 135 (or waiver) in order to be admitted into the Physics major.

The Department recommends strongly that students who are interested in majoring in Physics talk with one of the Department's faculty members as early as possible.