

**Achievement-Centered Education (ACE)**  
**Requirements for Secondary Sciences Grades 7 – 12**  
**ACE courses may be used to satisfy education and endorsement requirements.**  
**See undergraduate bulletin for list of ACE courses.**

<b>Achievement – Centered Education (ACE)</b>	<b>Course Taken Term and Grade Earned</b>	<b>Suggested Course(s)</b>	<b>Suggested Courses that if taken will meet an education or endorsement requirement as well as the ACE requirement</b>
ACE 1. Written Communication		ENGL 101, 150, 151 or 254	
ACE 2. Communication Competence		COMM 109, 209 or 210	
ACE 3. Math, Statistics		MATH 106, STAT 218 or EDPS 459	
ACE 4. Scientific Method			ASTR 103, CHEM 109, 110, GEOL 103, 115, METR 200, PHYS 141, 142, 211/221, 212/222
ACE 5. History/Humanities			
ACE 6. Human Behavior			EDPS 251, 457
ACE 7. Arts			
ACE 8. Ethics			TEAC 331
ACE 9. Global Awareness			TEAC 330
ACE 10. Integration			TEAC 403B

**Additional ACE Course Work Requirements**

**These may double dip with course work in the education and endorsement that are ACE courses.**

- o **Speech course: COMM 109, 209, 210 (ACE 2 courses) or COMM 205 (ACE 7 course).** You may choose to meet the speech course requirement and an ACE 2 or ACE 7 requirement with one course.
  
- o **Two ACE courses at the 300/400 level. TEAC 330, Teac 331, EDPS 457, and TEAC 403B are courses that meet program requirements, ACE requirements, and also may satisfy this requirement.**
  - o \_\_\_\_\_ o \_\_\_\_\_
  
- o **Four additional ACE courses for a total of 14 ACE courses.** You may choose to select ACE courses above that meet education or endorsement requirements
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# Advising Guide for Physics 7-12 Certification

This advising guide is for students on the following academic bulletins: 2013/2014; 2014/2015

**This advising guide and your personal long range planning guide are designed to accompany the Degree Audit. While every attempt has been made to accurately list all course requirements, please refer to the Undergraduate Bulletin and Degree Audit.**

Last updated May, 2014 - BJ

Achievement–Centered Education (ACE) requirements are found in the undergraduate bulletin.

## Pre-Professional Education Courses (13 hrs)

TEAC 331	School and Society (Sophomores +)	3 hrs
EDPS 251	Adolescent Development for Ed	3 hrs
EDPS 297	Practicum (take with EDPS 251)	1 hr
TEAC 259	Instructional Technology	3 hrs
TEAC 330	Multicultural Education (Sophomore+)	3 hrs

## GEOL 101

## Physical Geology

4 hrs

Acceptance into the Science Teacher Education Program is required before enrollment in the Professional Education courses. 80% of the endorsement courses must be completed prior to enrolling in TEAC 451V. The professional education sequence begins spring semester, continues in the fall semester, and is followed by a semester of student teaching.

## Physics Endorsement (38 hrs)

Students must complete a minimum of 26 hours in physics from the following list plus a minimum of 4 hours each in biology, chemistry, and earth & space science. Math 106, 107, and 208 are prerequisites.

### Math Prerequisites

Math 106	Calculus and Analytical Geometry I	5 hrs
Math 107	Calculus and Analytical Geometry II	4 hrs
Math 208	Calculus and Analytical Geometry III	4 hrs

ASTR 204/224 Astrophysics w/lab 4 hrs

Prerequisite: Phys 211/221 and Math 107 or parallel

PHYS 201 Modern Topics in Physics and Astronomy 1 hr

PHYS 211/221 General Physics I w/lab 5 hrs

Prerequisite: Math 106 or parallel & 1 yr high school physics or Phys115)

PHYS 212/222 General Physics II w/lab 5 hrs

Prerequisite: Math 107 or parallel & Phys 211/221)

PHYS 213/223 General Physics III w/lab 5 hrs

Prerequisite: Math 208 or parallel & Phys 212/222)

PHYS 231 Electrical and Electronic Circuits 3 hrs

Prerequisite: Phys 212/222)

PHYS 311 Mechanics 3 hrs

Prerequisite: Phys 212/222 and Math 221

LIFE 120/120L Fundamentals of Biology I w/lab 4 hrs

Select one of the following courses: 4 hrs

CHEM 109 General Chemistry I

CHEM 110 General Chemistry II

## Professional Education Courses (27 hrs)

### Methods

TEAC 451V	Teaching Principles	3 hrs
TEAC 452V	Curriculum Principles	3 hrs
TEAC 397V	Practicum	3 hrs
EDPS 457	Learning and Motivation	3 hrs
SPED 401B	Mainstreaming	3 hrs

### Student Teaching

TEAC 497V	Student Teaching	9 hrs
TEAC 403B	Student Teaching Seminar (ACE10)	3 hrs

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