

## Earth & Space Science Education 7-12

### Effective 2018-2019 academic year

**I. ACHIEVEMENT CENTERED EDUCATION (ACE)**

All UNL students are required to complete a minimum of 3 hours of approved course work in each of the 10 designated ACE areas.

- ACE #1 *Written Texts Incorporating Research & Knowledge Skills*  
ENGL 150, 151, or 254 (3 hrs) \_\_\_\_\_
- ACE #2 *Communication Skills*  
TEAC 259 (3 hrs) √√√√√
- ACE #3 *Mathematical, Computational, Statistical, or Formal Reasoning Skills*  
MATH 106, STAT 218 or EDPS 459 (3 hrs) \_\_\_\_\_
- ACE #4 *Study of Scientific Methods & Knowledge of Natural & Physical World*  
ASTR 103 (3 hrs) √√√√√
- ACE #5 *Study of Humanities*  
(Any) (3 hrs) \_\_\_\_\_
- ACE #6 *Study of Social Sciences*  
EDPS 251 (3 hrs) √√√√√
- ACE #7 *Study of the Arts to Understand Their Context & Significance*  
(Any) (3 hrs) \_\_\_\_\_
- ACE #8 *Ethical Principles, Civics, Stewardship & Their Importance to Society*  
TEAC 331 (3 hrs) √√√√√
- ACE #9 *Global Awareness, Knowledge of Human Diversity through Analysis of an Issue*  
TEAC 330 (3 hrs) √√√√√
- ACE #10 *Integration of Abilities, Capacities in a Creative or Scholarly Product*  
TEAC 403B (3 hrs) √√√√√

**II. PRE-PROFESSIONAL EDUCATION**

*No grade lower than "C"*  
*All courses must be for a grade (not Pass/No Pass) with the exception of EPDS 297.*  
*TEAC 331 & EDPS 251 must average a 2.5 GPA*

- TEAC 331 School and Society \_\_\_\_\_ (3 hrs) \_\_\_\_\_
- EDPS 251 Adolescent Development for Ed \_\_\_\_\_ (3 hrs) \_\_\_\_\_
- EDPS 297 Practicum (take with EDPS 251) \_\_\_\_\_ (1 hr) \_\_\_\_\_
- TEAC 330 Multicultural Ed \_\_\_\_\_ (3 hrs) \_\_\_\_\_
- TEAC 259 Instructional Technology \_\_\_\_\_ (3 hrs) \_\_\_\_\_

**Electives** (to meet 120 hour requirement for graduation)

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**III. ENDORSEMENT**

*No grade lower than "C"*

Students must complete a minimum of 24 hours in earth & space science from the following list plus a minimum of 4 hours each in biology, chemistry, and physics.

- ASTR 103 Descriptive Astronomy **OR**
- ASTR 204/224 Astrophysics w/lab \_\_\_\_\_ (3-4 hrs) \_\_\_\_\_  
 Pre-requisite: Phys 211/221 and Math 107
- GEOL 101 Physical Geology \_\_\_\_\_ (4 hrs) \_\_\_\_\_
- GEOL 109 Oceanography \_\_\_\_\_ (3 hrs) \_\_\_\_\_
- GEOL 115 Earth's Energy Resources \_\_\_\_\_ (3 hrs) \_\_\_\_\_
- GEOL 200 Mineralogy \_\_\_\_\_ (2 hrs) \_\_\_\_\_
- GEOL 201 Igneous & Metamorphic Petrology \_\_\_\_\_ (2 hrs) \_\_\_\_\_
- GEOL 211 Sedimentology & Stratigraphy \_\_\_\_\_ (3 hrs) \_\_\_\_\_
- METR 100 Weather and Climate \_\_\_\_\_ (4 hrs) \_\_\_\_\_  
 (Pre-requisite: Math 101)
- GEOL 106 Environmental Geology **OR**
- NRES 108 Earth's Energy Resources **OR**
- SOIL 153 Soil Resources \_\_\_\_\_ (3 hrs) \_\_\_\_\_

**Supporting Sciences**

- LIFE 120/120L Fundamentals of Biology I w/lab \_\_\_\_\_ (4 hrs) \_\_\_\_\_
- CHEM 109 General Chemistry I **OR**
- CHEM 113 Fundamental Chemistry I \_\_\_\_\_ (4 hrs) \_\_\_\_\_
- PHYS 141 Elementary General Physics I **OR**
- PHYS 211/221 General Physics I w/lab **OR**
- MSYM 109/109L Physical Principles in Agriculture and Life Sciences \_\_\_\_\_ (5 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.

**Professional Education Courses (27 hrs)**

*All grades must be a minimum of "C+" or above.*

**Methods**

- TEAC 397V Practicum \_\_\_\_\_ (3 hrs) \_\_\_\_\_
- TEAC 413M ELL Content Area \_\_\_\_\_ (3 hrs) \_\_\_\_\_
- TEAC 451V Teaching Principles \_\_\_\_\_ (3 hrs) \_\_\_\_\_
- TEAC 452V Curriculum Principles \_\_\_\_\_ (3 hrs) \_\_\_\_\_
- SPED 401B Mainstreaming \_\_\_\_\_ (3 hrs) \_\_\_\_\_

**Student Teaching**

- TEAC 497V Student Teaching \_\_\_\_\_ (9 hrs) \_\_\_\_\_
- TEAC 403B Student Teaching Seminar (ACE 10) \_\_\_\_\_ (3 hrs) \_\_\_\_\_