

## Earth & Space Science Education 7-12

### Effective 2019-2020 academic year

#could be taken for credit towards an International Studies minor

#### 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**  
 GEOL 310 Depositional Environments **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) \_\_\_\_\_  
 LIFE 121/121L Fundamentals of Biology II w/lab \_\_\_\_\_ (4 hrs) \_\_\_\_\_

CHEM 109 General Chemistry I **OR**  
 CHEM 110 General Chemistry II **OR**  
 CHEM 113 Fundamental Chemistry I \_\_\_\_\_ (4 hrs) \_\_\_\_\_

PHYS 141 & 142 Elementary General Physics I & II **OR**  
 PHYS 211/221 & 212/222 General Physics I & II w/lab **OR**  
 MSYM 109/109L Physical Principles in Agri Life Sciences \_\_\_\_\_

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) \_\_\_\_\_