

Chemistry Education 7-12

Effective 2015-2016 academic year

I. ACHIEVEMENT CENTERED EDUCATION (ACE) (27 hrs)

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*
ENGL150, 151, or 254 (3 hrs) _____

ACE #2 *Communication Skills*
COMM 109, 209, 210, or 286 (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*
LIFE 120/120L (4 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) ✓✓✓✓✓

Additional ACE course work

Select 4 additional courses from ACE Outcomes 1-10

CHEM 109 (4 hrs) ✓✓✓✓✓
CHEM 110 (4 hrs) ✓✓✓✓✓
GEOL 101 (4 hrs) ✓✓✓✓✓
EDPS 457 (3 hrs) ✓✓✓✓✓

II. PRE-PROFESSIONAL EDUCATION (13 hrs)

No grade lower than "C"

All courses must be for a grade (not Pass/No Pass) with the exception of EDPS 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) _____

III. ENDORSEMENT (42-43 hrs)

No grade lower than "C"

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

CHEM 109 General Chemistry I _____ (4 hrs) _____
 CHEM 110 General Chemistry II _____ (4 hrs) _____
 CHEM 221 Elementary Quantitative Analysis _____ (4 hrs) _____

Select one of the following: _____ (4 hrs) _____

CHEM 251/253 Organic Chemistry w/lab **OR**
 CHEM 255/257 Biologic Organic Chemistry w/lab

CHEM 421/423 Analytical Chemistry w/lab _____ (5 hrs) _____
 Offered Spring semester only
 (Prerequisite: Chem 471 or 481)

Select one of the following: _____ (3-4 hrs) _____

CHEM 471 Physical Chemistry **OR**
 (Prerequisite: Chem 221, Math 106)
 CHEM 481 Physical Chemistry I **OR**
 (Prerequisite: Chem 221, Math 208, Phys 212)
 CHEM 131 Science of Food

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

GEOL 101 Physical Geology _____ (4 hrs) _____

Select one of the following sequences: _____ (10 hrs) _____

A. Non-calculus based physics **OR**
 PHYS 141 Elementary General Physics I _____ (5 hrs) _____
 PHYS 142 Elementary General Physics II _____ (5 hrs) _____
 B. Calculus based physics
 PHYS 211/221 General Physics I _____ (5 hrs) _____
 PHYS 212/222 General Physics II _____ (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 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 (ACE 10) _____ (3 hrs) _____

Electives (0-11 hrs)

_____ (3 hrs) _____
 _____ (3 hrs) _____