

NAME: \_\_\_\_\_

ID#: \_\_\_\_\_ Bulletin year: \_\_\_\_\_

## Chemistry 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*  
ENGL150, 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*  
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) ✓✓✓✓✓**II. PRE-PROFESSIONAL EDUCATION***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) \_\_\_\_\_

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

\_\_\_\_\_ (3 hrs) \_\_\_\_\_

\_\_\_\_\_ (3 hrs) \_\_\_\_\_

**III. ENDORSEMENT***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 &amp; 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)

CHEM 441/443 Inorganic Chemistry w/lab \_\_\_\_\_ (4 hrs) \_\_\_\_\_

Select one of the following: \_\_\_\_\_ (4 hrs) \_\_\_\_\_

CHEM 471 Physical Chemistry **OR**

(Prerequisite: Chem 221, Math 107)

CHEM 481 Physical Chemistry I

(Prerequisite: Chem 221, Math 208, Phys 212)

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

LIFE 121/121L Fundamentals of Biology II w/lab \_\_\_\_\_ (4 hrs) \_\_\_\_\_

GEOL 101 Physical Geology \_\_\_\_\_ (4 hrs) \_\_\_\_\_

METR 100 Weather and Climate \_\_\_\_\_ (4 hrs) \_\_\_\_\_

(Pre-requisite: Math 101)

**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***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) \_\_\_\_\_