

Department of Chemistry
Eastern Illinois University
PROPOSED REVISION OF SCIENCE WITH TEACHER CERTIFICATION MAJOR WITH
CHEMISTRY SPECIALIZATION (B.S.)

Changes in red

Chemistry Specialization

The BS in Science with Teacher certification (Chemistry Specialization) degree program prepares students for a career as high school science teachers. In addition, it prepares students to teach high school chemistry at all levels from introductory through Advanced Placement (AP).

The BS in Science Teacher Certification with Chemistry Specialization Major:

1. 76-77 Semester Hours of Major Courses

BIO 1100 - General Biology. Credits: 4
BIO 1200G - General Botany. Credits: 4
BIO 1300G - Animal Diversity. Credits: 4
CHM 1310G - General Chemistry I. Credits: 3
CHM 1315G - General Chemistry Laboratory I. Credits: 1
CHM 1410 - General Chemistry II. Credits: 3
CHM 1415 - General Chemistry Laboratory II. Credits: 1
CHM 2310 - Inorganic Chemistry I. Credits: 3
CHM 2430 - Survey of Organic Chemistry. Credits: 3
CHM 2435 - Survey of Organic Chemistry Laboratory. Credits: 1
CHM 2730 - Quantitative Analysis. Credits: 3
CHM 3000 - Undergraduate Seminar. Credits: Audit only
CHM 3001 - Undergraduate Seminar. Credits: 1
CHM 3100 - Practicum in Chemistry. Credits: 1
CHM 3300 - Survey of Biochemistry. Credits: 3
CHM 3780 - Instrumental Analysis. Credits: 3
or CHM 3915
CHM 3910 - Chemical Thermodynamics and Kinetics. Credits: 3
CHM 3915 - Physical Chemistry Laboratory. Credits: 2
or CHM 3780
ESC 1300G - Introduction to Earth Sciences. Credits: 4
ESC 1400G - Weather and Climate. Credits: 4
ESC 2450G - Oceanography. Credits: 3
MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
PHS 3400 - Methods of Teaching Physical Sciences. Credits: 3
PHY 1351G - General Physics I. Credits: 3
PHY 1352G - General Physics I Laboratory. Credits: 1
PHY 1361 - General Physics II. Credits: 3
PHY 1362 - General Physics II Laboratory. Credits: 1
~~PHY 3150 – Electronics. Credits: 4~~
PHY 1055G – Principles of Astronomy. Credits: 3
PHY 1056 G – Principles of Astronomy Laboratory. Credits: 1

Rationale

Historically the inclusion of electronics in the CHM teacher certification program was to enable chemistry teacher certification students to gain sufficient laboratory hours in physics for a physics endorsement. We had hoped students in the Science Teacher Certification/Chemistry Specialization program could continue gaining the additional depth in physics provided by PHY 3150. However, student feedback indicates that the science content tests have significant astronomy and virtually no electronics. A review of state goals certainly corroborates the need to have astronomy in the required curriculum (Goal12F). There does not appear to be a general science goal specifically for electronics so, given the scheduling demands placed on these students, we feel if we require PHY 1055G and PHY1056G we cannot justify also requiring PHY 3150.

It might be worth noting that the BIO Specialization Program and the Earth Science Specialization Program both require PHY 1055G and PHY 1056G, but not PHY 3150.

Effective date: Fall 2008

Date approved by the Chemistry Department: November 12, 2007

Date approved by the College of Sciences Curriculum Committee: November 30, 2007

Date approved by the Council on Teacher Education: