

CHEM 3362L: Modern Organic Chemistry Lab II

1 Credit Hours

Prerequisite: CHEM 3361L

Concurrent: CHEM 3362

Laboratory experiments designed to introduce the students to modern experimental methods used in organic chemistry synthesis, characterization of compounds, and multi-step synthesis of useful target-compounds from readily available starting material.

CHEM 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of coordinator of cooperative education/internship.

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency.

Notes: Credit is allowed only in elective areas.

CHEM 3398: Internship

Variable 1-12 Credit Hours

Prerequisite: Approval of internship coordinator and chair.

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency.

Notes: Credit is allowed only in elective areas.

CHEM 3400: The Teaching and Learning of Chemistry

3 Credit Hours

Prerequisite: CHEM 3361

An introduction to the methods of effective chemistry teaching in both the classroom and laboratory settings. Current chemical education research literature on topics such as theories of teaching, active learning strategies, misconceptions, multiculturalism, laboratory design, demonstrations, and assessment will be introduced and discussed. Class meetings will include hands-on activities where demonstrations and laboratory investigations are designed, enacted, and assessed as well as discussions about research-based best practices in the presentation of chemistry concepts to diverse student populations. Time will also be devoted to ensuring that essential chemistry content such as electro chemistry, thermodynamics, kinetics, and bonding are thoroughly understood so that they can be communicated effectively in the classroom.