

DIVISION OF CHEMISTRY AND BIOCHEMISTRY

Web Site: <http://www.twu.edu/chemistry-biochemistry/>

Courses

Contact hours identified in the course descriptions are based on a 15-week term. Students who enroll in Summer or mini-terms are expected to meet the same total number of contact hours as a 15-week term.

CHEM 5013. Advanced Physical Chemistry. Fundamental laws, states of matter, thermodynamics of solutions, and chemical equilibria with an emphasis on biological systems. Three lecture hours a week. Credit: Three hours.

CHEM 5101. Seminar. Presentation of chemical papers of current interest, followed by discussion. Prerequisite: One semester of graduate work. One seminar hour a week. Credit: One hour.

CHEM 5213. Advanced Organic Chemistry. Problems and techniques of modern theoretical organic chemistry. Three lecture hours a week. Credit: Three hours.

CHEM 5323. Advanced Analytical Chemistry. Activity and equilibrium in water and nonaqueous solvents; precipitation, complexation, redox, electrochemical, and separative processes; sampling and statistics. Instrumentation. Three lecture hours a week. Credit: Three hours.

CHEM 5523. Advanced Inorganic Chemistry. Theory and description applicable to the elements and their inorganic compounds; bonding, structure stereochemistry, complexes, acid-base theory. Three lecture hours a week. Credit: Three hours.

CHEM 5613. Advanced Biochemistry I. Chemistry and structure of biomolecules (carbohydrates, lipids, amino acids and proteins, nucleotides and nucleic acids). Three lecture hours a week. Credit: Three hours.

CHEM 5623. Advanced Biochemistry II. Chemistry and metabolism of biomolecules (proteins, enzymes, nucleic acids, carbohydrates, and lipids). Pre-requisite: CHEM 5613. Three lecture hours a week. Credit: Three hours.

CHEM 5891. Research in Chemistry. Original research. May be used as thesis subject. May be repeated for additional credit. Prerequisite: Permission of the instructor. Credit: One hour.

CHEM 5893. Research in Chemistry. Original research. May be used as a thesis subject. May be repeated for additional credit. Prerequisite: Permission of the instructor. Credit: Three hours.

CHEM 5896. Research in Chemistry. Original research. May be used as a thesis subject. May be repeated for additional credit. Prerequisite: Permission of the instructor. Credit: Six hours.

CHEM 5903. Special Topics. Lectures or conferences on recent developments in chemical theory or practice. May be repeated with change of topic for additional credit. Prerequisite: Permission of the instructor. Three lecture hours a week. Credit: Three hours.

CHEM 5911. Independent Study. Independent student readings or experimentation in chemistry. Prerequisite: Permission of instructor. Credit: One hour.

CHEM 5912. Independent Study. Independent student readings or experimentation in chemistry. Prerequisite: Permission of instructor. Credit: Two hours.

CHEM 5913. Independent Study. Independent student readings or experimentation. Prerequisite: Permission of instructor. Credit: Three hours.

CHEM 5953. Internship. Cooperative work-study arrangement between business, industry, or selected institution and the University. Pre-planning and evaluation will involve approximately 10% of the practicum hours per week. May be repeated for credit. Nine practicum hours a week. Credit: Three hours.

CHEM 5956. Internship. Cooperative work-study arrangement between business, industry, or selected institution and the University. Pre-planning and evaluation will involve approximately 10% of the practicum hours per week. May be repeated for credit. Eighteen practicum hours a week. Credit: Six hours.

CHEM 5973. Professional Paper. Written presentation of literature and possible laboratory and/or statistical research in a selected area of chemistry. Credit: Three hours.

CHEM 5983. Thesis. Credit: Three hours.

CHEM 5993. Thesis. Prerequisite: CHEM 5983. Credit: Three hours.

SCI 5903. Special Topics. Advanced topics in general science. Three lecture hours a week. Credit: Three hours.

SCI 5911. Independent Study. Independent student readings or study in general sciences. Prerequisite: Permission of the instructor. Credit: One hour.

SCI 5913. Independent Study. Independent student readings or study in general science. Prerequisite: Permission of the instructor. Credit: Three hours.