

# CH - CHEMISTRY (CH)

## \*Course Fees are Per Credit Hour

### CH 501. Occupational Safety and Health for Teachers. (3 Credits)

Principles of occupational health and safety covering standard techniques for the recognition, evaluation and control of workplace and environmental health hazards, and emphasis on the role of regulatory agencies, the Occupational Safety and Health Act of 1970, and workplace safety and health regulations and how these relate to the teaching of secondary school chemistry. (Summer)

Course Fees: \$60

### CH 590. Special Topics in Chemistry. (3 Credits)

Courses on a variety of topics are available to eligible graduate students under this course number and title. Course number may be repeated as different topics in chemistry are offered. Departmental approval required. Special fee may be required depending on the topic. (Offered upon sufficient demand)

Course Fees: \$60

### CH 634. Advanced Inorganic Chemistry. (3 Credits)

Selected topics in inorganic chemistry. Three class periods per week. Prerequisites: CH 341, 341L.

Course Fees: \$60

### CH 634L. Advanced Inorganic Laboratory. (1 Credit)

Laboratory for CH 634. Selected experiments in inorganic chemistry utilizing modern preparative techniques and modern spectroscopic techniques. One 3-hour laboratory period per week. Must be taken concurrently with CH 634. Prerequisites: CH 341, 341L.

Course Fees: \$60

### CH 637. Advanced Organic Chemistry. (3 Credits)

Study of the application of spectroscopic methods to the determination of organic structures. Review of selected organic mechanisms emphasizing classical reactive intermediates, stereochemistry, and orbital symmetry. Introduction to natural products chemistry. Three class periods per week. Prerequisites: CH 312, 312L, 341, 341L, or approval of instructor.

Course Fees: \$60

### CH 637L. Advanced Organic Laboratory. (1 Credit)

Laboratory for CH 637. Selected experiments in organic chemistry utilizing modern preparative techniques and modern spectroscopic techniques. One 3-hour laboratory period per week. Must be taken concurrently with CH 637. Prerequisites: CH 312, 312L, 341, 341L, or approval of instructor.

Course Fees: \$60

### CH 644. Quantum Chemistry. (3 Credits)

The wave equation with interpretations, operation, eigenvalues, expectation values, one-dimensional motion, angular momentum, spin and approximate solutions to the wave equation with applications. Prerequisites: CH 381, 381L.

Course Fees: \$60

### CH 655. Studies in Teaching Secondary School Chemistry. (3 Credits)

Study of particular problems and teaching practices of the chemistry teacher. Appraisal of laboratory experiences, equipment selection, and utilization of current curriculum developments will be emphasized. The future of chemistry and chemistry teaching is considered. Prerequisite: undergraduate major or minor in chemistry.

Course Fees: \$60

### CH 665. Environmental Regulations for Teachers. (3 Credits)

A study of the fundamental environmental laws and regulations of the United States. Primary emphasis will be on the Safe Drinking Water Act, the Clean Water Act, the Clean Air Act and the Resource Conservation and Recovery Act, and how these relate to the teaching of secondary school chemistry. Prerequisites: CH 311, 311L, or approval of instructor.

Course Fees: \$60

### CH 671. Chemical Literature. (1 Credit)

Course Fees: \$60

### CH 690. Special Topics in Chemistry. (3-6 Credits)

Courses on a variety of topics are available to eligible graduate students under this course number and title. Course number may be repeated as different topics in chemistry are offered. Departmental approval required. Special fee may be required depending on the topic.

Course Fees: \$60

### CH 696. Directed Research. (1-3 Credits)

Research project in the student's area of interest and specialization under the direction of departmental faculty. Conferences and laboratories as required. Departmental approval required.

Course Fees: \$60