

---

**Department of Chemistry**  
**College of Arts and Sciences**

Claudia Cartaya-Marin, Chair and Professor  
Ph.D., Brandeis University  
CartayaCP@appstate.edu

<http://www.chemistry.appstate.edu/>

The Department of Chemistry does not offer a graduate program. The following courses are used to complement other graduate degree programs. Courses in the following disciplines are offered through the Department of Chemistry:

CHE: chemistry courses

**GRADUATE COURSES IN CHEMISTRY (CHE)**

**CHE 5070. Advanced Physical Chemistry/(4).F.** Rigorous treatment of the laws of thermodynamics and statistical mechanics. Applications to gases, solutions and other condensed phases, studies of surface effects. Lecture four hours.

**CHE 5500. Independent Study/(1-4).F;S.**

**CHE 5530-5549. Selected Topics/(1-4).On Demand.** An opportunity to study a special topic or combination of topics not otherwise provided for in the chemistry curriculum. May be repeated for credit when content does not duplicate. Prerequisite: graduate status.

**CHE 5560. Instrumental Methods of Analysis/(4).F.** A study of some of the modern instrumental methods of analysis including electrochemistry, atomic and molecular spectroscopy, magnetic resonance spectrometry, mass spectrometry and gas chromatography. Prerequisite: CHE 3301. Lecture three hours, laboratory three hours.

**CHE 5580. Biochemistry I/(3).F;S.** This course covers the properties of amino acids, proteins, carbohydrates, lipids and nucleic acids and presents a brief introduction to enzymology. Major emphasis is on the chemistry of biological compounds. An introduction to intermediary metabolism is also presented. Prerequisite: CHE 2101 or CHE 2202. Lecture three hours. [Dual-listed with CHE 4580.]

**CHE 5581. Biochemistry I Laboratory/(1).F;S.** Experimental investigations which supplement the study of the topics in biochemistry. Prerequisite: CHE 2203 (or equivalent); co- or prerequisite: CHE 5580 (or equivalent). Laboratory three hours. [Dual-listed with CHE 4581.]

**CHE 5582. Biochemistry II/(3).S.** This course will cover the intermediary metabolism of amino acids, nucleic acids, carbohydrates and lipids. Metabolic pathways and their associated enzymes are emphasized. Prerequisite: CHE 4580 with CHE 3301 recommended but not required. Lecture three hours. [Dual-listed with CHE 4582.]

**CHE 5989. Graduate Research/(1-9).F;S.** This course is designed to provide access to University facilities for continuing graduate research at the master's and specialist's levels. Graded on an S/U basis. CHE 5989 does not count toward a degree.

**CHE 5999. Thesis/(4).F;S.** Graded on an S/U basis.