CHEMISTRY (CHE)

CHE503. Advanced Organic Chemistry. 3 Credits.
Topics of current interest in organic research.
Attributes:
• Liberal Arts
Restrictions:
• Must have the following level: Graduate
Prerequisites:
• CHE319 Minimum Grade of D-
May not be repeated for credit

CHE509. Spectrometric Identification of Organic Compounds. 3 Credits.
Application of spectrometry (mass, infrared, ultraviolet and nuclear magnetic resonance) to the identification of organic compounds.
Attributes:
• Liberal Arts
Restrictions:
• Must have the following level: Graduate
Prerequisites:
• CHE319 Minimum Grade of D-
• PHY202 Minimum Grade of D-
May not be repeated for credit

CHE512. Advanced Inorganic Chemistry. 3 Credits.
Attributes:
• Liberal Arts
Restrictions:
• Must have the following level: Graduate
Prerequisites:
• CHE314 Minimum Grade of D-
• CHE321 Minimum Grade of D-
May not be repeated for credit

CHE531. Separation Methods in Chemistry. 3 Credits.
A course that applies physical, chemical and equilibrium properties to the problems of isolating components in analytical processes with emphasis on chromatographic procedures. Applications from current literature.
Attributes:
• Liberal Arts
Restrictions:
• Must have the following level: Graduate
Prerequisites:
• CHE303 Minimum Grade of D-
• CHE321 Minimum Grade of D-
May not be repeated for credit

CHE535. Chemical Engineering for Chemists. 3 Credits.
Expands skills and techniques acquired in physical chemistry by providing applications to large systems of reaction occurring in flow systems. Introduction to the mass, momentum and energy balances and design concepts familiar to chemical engineers. Not for engineers.
Attributes:
• Liberal Arts
Restrictions:
• Must have the following level: Graduate
May not be repeated for credit

CHE570. Biochemistry. 3 Credits.
Structure of biomolecules and their assemblies and the chemical reactions of metabolic processes. Molecular aspects of gene replication, transcription and translation.
Attributes:
• Liberal Arts
Restrictions:
• Must have the following level: Graduate
Prerequisites:
• CHE319 Minimum Grade of D-
May not be repeated for credit

CHE572. Biotechnology Laboratory. 4 Credits.
Methods of modern biotechnology, including molecular cloning, gene isolation, gene amplification, design and creation of recombinant plasmids and phages, site-specific mutagenesis, isolation and sequencing of recombinant DNA.
Attributes:
• Liberal Arts
Restrictions:
• Must have the following level: Graduate
Prerequisites:
• CHE319 Minimum Grade of D-
• CHE 461 Minimum Grade of D-
• BIO320 Minimum Grade of D-
• BIO350 Minimum Grade of D-
May not be repeated for credit

CHE573. Principles of Physical Chemistry. 3 Credits.
Fundamental principles and their application in thermodynamics, solution and phase equilibria, the solid state, and topics such as physical chemistry of surfaces. Not open to undergraduate chemistry majors.
Attributes:
• Liberal Arts
Restrictions:
• Must have the following level: Graduate
Prerequisites:
• CHE202 Minimum Grade of D-
• MAT252 Minimum Grade of D-
May not be repeated for credit
CHE574. Principles of Polymer Sciences. 3 Credits.
Principles of formation and behavior of large molecules and their relationship to industrial and biochemical applications.
Attributes:
• Liberal Arts
Restrictions:
• Must have the following level: Graduate
Prerequisites:
• CHE319 Minimum Grade of D-
May not be repeated for credit

CHE575. Principles of Materials Science. 3 Credits.
Attributes:
• Liberal Arts
Restrictions:
• Must have the following level: Graduate
Prerequisites:
• CHE319 Minimum Grade of D-
• PHY202 Minimum Grade of D-
May not be repeated for credit

CHE590. Thesis in Chemistry (1-6). 0 Credits.
An individual research project conducted under the direction of a faculty advisor. Required form available in the Records and Registration Office.
Restrictions:
• Must have the following level: Graduate
May not be repeated for credit

CHE593. Chemistry Selected Topic. 3-12 Credits.
Selected topics courses are regularly scheduled courses that focus on a particular topic of interest. Descriptions are printed in the Schedule of Classes each semester. Selected topics courses may be used as elective credit and may be repeated for credit, provided that the topic of the course changes.
Restrictions:
• Must have the following level: Graduate
May be repeated for credit

CHE594. Fieldwork In Chemistry. 0 Credits.
Restrictions:
• Must have the following level: Graduate
May not be repeated for credit

CHE595. Indep Study Chemistry. 3-12 Credits.
Restrictions:
• Must have the following level: Graduate
May be repeated for credit

CHE599. Comprehensive Exam Workshop. 0 Credits.
Non-credit workshop for students who wish to devote the semester immediately following the completion of their coursework to prepare for the comprehensive exam.
Restrictions:
• Must have the following level: Graduate
• Must be enrolled in the following field(s) of study (major, minor or concentration): Chemistry (203)
May not be repeated for credit

CHE693. Chemistry Selected Topic. 3-12 Credits.
Restrictions:
• Must have the following level: Graduate
May be repeated for credit

CHE795. Indep Study Chemistry. 1-12 Credits.
Restrictions:
• Must have the following level: Graduate
May be repeated for credit

CHE799. Continued Registration. 1 Credit.
Restrictions:
• Must have the following level: Graduate
May be repeated for credit