

CHEMISTRY (CHEM)

CHEM 500 INDEPENDENT STUDY OR RESEARCH1-3 Credits

For the graduate student participating in investigations and/or independent studies in chemistry.

Add Consent: Instructor Consent

Notes: May be repeated.

Requirements: Permission of instructor, Dean of Graduate Studies, and Academic Vice President.

CHEM 501 CHEMISTRY RESEARCH1-3 Credits

Laboratory research experience for chemistry students. Project responsibilities assigned and supervised by chemistry faculty.

Prerequisites: BIOL 243, 243L, 244, 244L and BIOL 332, 332L or GEOS 234, 234L and GEOS 337, 337L.

CHEM 517 TOPICS IN CHEMISTRY1-3 Credits

Designed to meet the needs of students in a special area of interest.

Notes: May be repeated for up to six (6) hours.

CHEM 519 SPECIAL TOPICS IN CHEMISTRY1-3 Credits

Designed to meet the needs of chemistry majors.

Notes: May be repeated.

CHEM 530 INORGANIC CHEMISTRY3 Credits

Advanced principles of inorganic chemistry.

Prerequisites: CHEM 132 and CHEM 132L

CHEM 533 ENVIRONMENTAL CHEMISTRY3 Credits

A detailed study of the chemical processes that influence the environment, including processes which affect the quality and use of land, water and atmosphere. Focuses on topics of current concern.

Prerequisites: CHEM 132 and CHEM 132L or CHEM 140 and CHEM 140L

Co-requisites: CHEM 533L

CHEM 533L ENVIRONMENTAL CHEMISTRY LABORATORY1 Credit

Laboratory experience.

Prerequisites: CHEM 132 and CHEM 132L or CHEM 140 and CHEM 140L

Co-requisites: CHEM 533

CHEM 535 BIOCHEMISTRY3 Credits

Covers the components and reactions of living matter. Topics include metabolism of major macromolecules including carbohydrates, lipids, and nucleic acids. Enzyme function and regulation will be studied.

CHEM 535L BIOCHEMISTRY LABORATORY1 Credit

Laboratory experiments in purification, quantitation and characterization of biological molecules.

CHEM 544 PHYSICAL CHEMISTRY3 Credits

Fundamental principles of thermodynamics, kinetics, and quantum mechanics as related to chemical concepts.

Prerequisites: CHEM 132, CHEM 132L, and MATH 138 or MATH 151

Co-requisites: CHEM 544L

Dual-listed: CHEM 444

CHEM 544L PHYSICAL CHEMISTRY LABORATORY1 Credit

Laboratory experience.

Prerequisites: CHEM 132, CHEM 132L, and MATH 138 or MATH 151

Co-requisites: CHEM 544L

CHEM 564 PHYSICAL CHEMISTRY II3 Credits

Fundamental principles of kinetics, and quantum mechanics as related to chemical concepts.

Prerequisites: CHEM 544, CHEM 544, and MATH 151

Dual-listed: CHEM 464

CHEM 600 INDEPENDENT STUDY OR RESEARCH1-3 Credits

Research investigations in chemistry. Requirements: Permission of instructor, Dean of Graduate Studies, and Academic Vice President.

Add Consent: Instructor Consent

CHEM 612 ADVANCED BIOTECHNOLOGY3 Credits

Independent research project utilizing current biotechnology and molecular biology techniques. Project will be developed with assistance from the faculty member. Integration with undergraduate teaching will be a component of the research completed. Learning communities will be established with students in CHEM 314.

Cross-Listed: BIOL612/CHEM612

Prerequisites: BIOL 332

CHEM 640 TOPICS IN CHEMISTRY1-3 Credits

Selected chemistry topics. Course content will vary to meet the special needs of students. The course may involve classroom, and/or field oriented activity. Credit is dependent upon length of course and depth of study.

Notes: May be repeated with different topics for up to six (6) course credits.

CHEM 655 SCHOLARLY PROJECT1-3 Credits

For students selecting Plan II, as listed under Program Requirements.

Scholarly project pertaining to a field of specialization. Designed in consultation with the student's graduate committee and includes an extensive paper summarizing the project.

Requirements: Must complete three (3) course credits.

CHEM 660 THESIS RESEARCH1-6 Credits

For students selecting Plan I, as listed under Program Requirements.

Original investigations in chemistry leading to the master's thesis.

Requirements: Must complete six (6) credit hours; proposal must be approved by the student's committee and Dean of Graduate Studies prior to registration.