

CHEMISTRY (CHEM)

CHEM 531 Advanced Inorganic Chemistry (3 Credits)

ADVANCED INORGANIC CHEMISTRY (3) A study of atomic structure; chemical bonding, including valence-bond, molecular orbital, crystal field, and ligand field theories; stereochemistry and the chemistry of coordination compounds. Three (3) lecture hours per week. (Prerequisite: Approval of the graduate advisor)

Prerequisite(s): (CHEM 232 and CHEM 332)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry

CHEM 533 Organic Reactions (3 Credits)

ORGANIC REACTIONS (3) A detailed study of the mechanisms associated with the important substitution, elimination, and addition reactions of aliphatic and aromatic molecules. Three (3) lecture hours per week.

(Prerequisite: CHEM 232)

Prerequisite(s): (CHEM 232)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry

CHEM 543 Advanced Analytical Chem (3 Credits)

ADVANCED ANALYTICAL CHEMISTRY (3) An in-depth study of the principles of ionic equilibria, acid-base chemistry, oxidation-reduction, and precipitation as they apply to processes occurring in both aqueous and non-aqueous media. Three (3) lecture hours per week. (Prerequisite: Approval of the graduate advisor or the department chair)

Prerequisite(s): (CHEM 332)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry

CHEM 623 Topics In Chemistry (3 Credits)

SPECIAL TOPICS (3) Consideration of special topics in chemistry. Three (3) lecture hours per week. (Prerequisite: Approval of the graduate advisor or the department chair)

Prerequisite(s): (CHEM 432)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry

CHEM 624 Topics In Chemistry (3 Credits)

SPECIAL TOPICS (3) Consideration of special topics in chemistry. Three (3) lecture hours per week. (Prerequisite: Approval of the graduate advisor or the department chair)

Prerequisite(s): (CHEM 432)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry

CHEM 625 Spec Topics In Chem (3 Credits)

SPECIAL TOPICS (3) Consideration of special topics in chemistry. Three (3) lecture hours per week. (Prerequisite: Approval of the graduate advisor or the department chair)

Prerequisite(s): (CHEM 432)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry

CHEM 633 Advanced Organic Chemistry (3 Credits)

ADVANCED ORGANIC CHEMISTRY (3) A study of the mechanisms of reactions of aliphatic and aromatic molecules; both carbocyclic and heterocyclic systems are considered. The effects of changes in structure and stereochemistry on the rate of reaction are also discussed. Three (3) lecture hours per week. (Prerequisite: Approval of the graduate advisor or the department chair)

Prerequisite(s): (CHEM 432)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry

CHEM 634 Adv Organic Chem (3 Credits)

ADVANCED ORGANIC CHEMISTRY (3) A continuation of CHEM 633. Three (3) lecture hours per week. (Prerequisite: CHEM 633)

Prerequisite(s): (CHEM 432 and CHEM 633)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry

CHEM 635 Advanced Physical Chemistry (3 Credits)

ADVANCED PHYSICAL CHEMISTRY (3) A discussion of important concepts in thermodynamics. Three (3) lecture hours per week. (Prerequisite: Approval of the graduate advisor or the department chair)

Prerequisite(s): (CHEM 432)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry

CHEM 636 Advanced Physical Chemistry (3 Credits)

ADVANCED PHYSICAL CHEMISTRY (3) A discussion of fundamental quantum chemistry and other advanced topics in physical chemistry. (Prerequisite: Approval of the graduate advisor or the department chair)

Prerequisite(s): (CHEM 432)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry

CHEM 861 Research Problems (3-6 Credits)

RESEARCH PROBLEMS (3) An individual investigation of a specific problem in chemistry by laboratory experiments or by an exhaustive study of the literature. The results of this work will constitute the student's thesis for the M.S. degree. (Prerequisite: Approval of the graduate advisor or the department chair)

Prerequisite(s): (CHEM 432)

College/School: Col of Science, Engr & Tech

Department: Department of Chemistry