



## Graduate Chemistry Courses, Including Special Topic Titles

Please note that only a selected number of courses are offered on a yearly basis and all *Selected Topic* titles are abbreviated to conform to the requirement to provide truncated titles for transcripts.

### CHEM 710/7100 Selected Topics in Inorganic Chemistry

- 1 Adv Coordination Chemistry
- 2 Main Group Chemistry
- 3 Inorganic Materials
- 4 Molecular Materials
- 5 Homogeneous Catalysis
- 6 Structure & Bonding in the Solid
- 7 Solid State Materials Chem
- 8 Bioinorganic Chemistry
- 9 Advanced Main Group Chemistry
- 10 Solid State Chemistry
- 11 X-Ray Absorption Spectroscopy
- 12 Struct & Fcnct Suprmclcr Mtrls
- 13 Nanostructural Materials

### CHEM 712/7120 X-Ray Crystallography

### CHEM 713/7130 Chemistry of Inorganic Solid State Materials

### CHEM 715/7150 Structure & Bonding in Inorganic Chemistry

### CHEM 717/7170 Advanced Transition Metal Chemistry

### CHEM 718/7180 Advanced Organometallic Chemistry

### CHEM 720/7200 Selected Topics in Analytical Chemistry

- 1 Analytical Atomic Spectrometry
- 2 Advanced Bioanalytical Chem
- 3 Surface Electrochemistry
- 4 Cmp Fld Dynmcs Appl to Chem In
- 5 Mass Spectrometry
- 6 Fundamentals of Electrochem.
- 7 Rcnt Advs in Appld Mass Spctrm
- 8 Spectroscopic Mthds Analytical
- 9 Fund of Mass Spectrometry
- 10 Contemporary Mass Spectrometry
- 11 Intro to Exp Design & Chemomet

### CHEM 724/7240 Chemical Instrumentation

### CHEM 726/7260 Topics in Analytical Spectroscopy

### CHEM 727/7270 Separations

### CHEM 728/7280 Electroanalytical Chemistry

### CHEM 729/7290 Surface Analysis

### CHEM 730/7300 Proteins and Nucleic Acids

### CHEM 731/7310 Selected Topics in Biochemistry

- 1 Metaloproteins & Metaloenzymes
- 2 Physical Biochemistry
- 3 Advanced Microbial Physiology
- 4 Chem of Enzymatic React Mechan
- 5 Biochemical Pharmacology
- 6 Spectroscopy of Biomolecules
- 7 Macromolecules: Biol Interest
- 8 Medicinal Chem&Drug Discovery
- 9 Biochemical Toxicology
- 10 NMR and Biological Systems
- 11 Apld Spctrscty of Biomolecule
- 12 Physical Biochemistry
- 13 Bioinorganic Chemistry
- 14 Bioinorganic Protein Chemistry
- 15 Glycobiology
- 16 Enzymatic Reaction Mechanisms
- 17 Biological Membranes
- 18 Biomolecular NMR Spectroscopy
- 19 Chemical Biology

### CHEM 736/7360 Regulations in Biological Systems

### CHEM 737/7370 Enzymes

### CHEM 738/7380 Cell Membranes and Cell Surfaces

### CHEM 740/7400 Selected Topics in Theoretical Chemistry

- 1 Potentials in Diatomic Spectra
- 2 Energies, Intensities & Ptnls
- 3 Select Topics in Computnl Chem
- 4 Thry & Prctc of Cmptatnl Chem
- 5 Computational Chemistry
- 6 Quantum Mechanics in Chemistry
- 7 Electronic Structure of Solids
- 8 Spectroscopic Det Intermolecul

### CHEM 745/7450 Statistical Mechanics

### CHEM 746/7460 Quantum Chemistry

### CHEM 750/7500 Selected Topics in Physical Chemistry

- 1 Synth/Prop of Nanomaterials
- 2 Principles of NMR Spectroscopy
- 3 Topics in NMR Spectroscopy
- 4 Surface Sci&Nanomaterials Tech
- 5 Atmospheric Remote Sensing
- 6 Aqueous Solutions
- 7 Spectroscopy
- 8 Topics in Environmental Cataly
- 9 Molecular Films
- 10 Molecular Spectroscopy
- 11 Bioelectronics
- 12 Topics in Computational Chem
- 13 Statistical Mechanics
- 14 NMR Spectroscopy
- 15 Phys Chem of Surfactants

### CHEM 755/7550 Kinetics - Dynamics

### CHEM 756/7560 Spectroscopy

### CHEM 760/7600 Selected Topics in Organic Chemistry

- 1 Natural Products Chemistry
- 2 Organomet. Reagents in Organic
- 3 Adv. Carbohydrate Chemistry
- 4 Tps in Natural Products Chem
- 5 Organic Electo:Prin & App
- 6 Organ Reagents in Org Synth
- 7 Asymtrc Synthesis & Catalysis
- 8 Natural Product Synthesis
- 9 Bioorganic Chemistry
- 10 Mlclr Mdlg-Orgnc/Biorgnc Chem
- 11 Modelling for Organic Chem
- 12 Biomedical Methods
- 13 Organometallics in Organic Syn

### CHEM 764/7640 Synthetic Organic Reactions

### CHEM 765/7650 Strategies in Organic Synthesis

### CHEM 766/7660 Organic Spectroscopy

### CHEM 769/7690 Physical Organic Chemistry

### CHEM 770/7700 Principles of Polymer Science

(Cross-Listed with CHE 640)

### CHEM 771/7710 Physical Properties of Polymers

(Cross-Listed with CHE 641)

### CHEM 772/7720 Polymerization and Polymer Reactions

### CHEM 773/7730 Selected Topics in Polymer Chemistry

- 1 Ionic Polymerization
- 2 Phys Charac of Polymers
- 3 Phys Char Syn Macromolecules
- 4 Polymer Prop - Polymerization
- 5 Dvlpmt Ionic Plymr & Rel Techs
- 6 Introduction to Polymer Scienc
- 7 Phy Char Bio & Syn Macro