CHEM-1310 General Chemistry II  
04 Semester Credits
Emphasis on kinetics, equilibrium concepts, electrochemistry, nuclear chemistry, thermodynamics, coordination chemistry and organic chemistry. To fulfill laboratory science requirement, students should enroll in related laboratory course.  
Lecture 04 hours.  Laboratory 00 hours.  
Prerequisite(s): CHEM-1300 General Chemistry I, or departmental approval: equivalent knowledge or skills.
OAN Approved: OSC009 (1 of 2 courses, both must be taken)

CHEM-131L General Chemistry Laboratory II  
01 Semester Credits
Basic laboratory experiments which correlate with chemical concepts, principles and processes of General Chemistry. Emphasis on technique and procedures. 
Lecture 00 hour.  Laboratory 03 hours.  
Prerequisite(s): CHEM-130L General Chemistry Laboratory I, and CHEM-1310 General Chemistry II or concurrent enrollment; or departmental approval: equivalent knowledge or skills.
OAN Approved: OSC009 (2 of 2 courses, both must be taken)

CHEM-131H Honors General Chemistry II  
05 Semester Credits
Study of the fundamental principles of chemistry emphasizing chemical and nuclear kinetics, thermodynamics, and equilibrium. Introduction and study into the specific branches of chemistry: electrochemistry, coordination, organic, nuclear, and environmental chemistry. Perform laboratory experiments designed to demonstrate chemical principles and support theoretical phenomena. Honors General Chemistry II combines lecture and laboratory into one course.  
Lecture 04 hours.  Laboratory 03 hours.  
Prerequisite(s): CHEM-130H Honors General Chemistry I, or departmental approval: equivalent knowledge or skills.
OAN Approved: OSC009

CHEM-2000 Analytical Chemistry  
05 Semester Credits
An introduction to the theoretical principles of quantitative and instrumental analysis. Emphasis on experimental methods, sampling techniques, statistics, error theory, chemical equilibrium, stoichiometry, and volumetric and gravimetric procedures as applied to quantitative determinations. Provides an introduction to spectroscopic, electroanalytical, and chromatographic methods of analyses. Provides hands-on experience to students by completion of laboratory experiments related to these principles. Emphasis on development of laboratory technique.  
Lecture 03 hours.  Laboratory 06 hours.  
Prerequisite(s): CHEM-1310 General Chemistry II and CHEM-131L General Chemistry Laboratory II.

CHEM-2300 Organic Chemistry I  
05 Semester Credits
Functional group chemistry of aliphatic compounds covering nomenclature, structural-reactivity, and synthetic reactions. Theoretical concepts, structural bonding, stereochemistry and reaction mechanisms emphasized. Use of various spectrometric techniques for identification of compounds introduced.  
Lecture 03 hours.  Laboratory 06 hours.  
Prerequisite(s): CHEM-1310 General Chemistry II, and CHEM-131L General Chemistry Laboratory II or CHEM-131H Honors General Chemistry II; or departmental approval: equivalent knowledge or skills.
OAN Approved: OSC010 (1 of 2 courses, both must be taken)

CHEM-2310 Organic Chemistry II  
05 Semester Credits
Continuation of Organic Chemistry I. Common functional groups with emphasis on aromatic and carbonyl containing molecules, and selected topics such as heterocyclic compounds, macromolecules, and biomolecules introduced.  
Lecture 03 hours.  Laboratory 06 hours.  
Prerequisite(s): CHEM-2300 Organic Chemistry.  
OAN Approved: OSC010 (2 of 2 courses, both must be taken)

CHINESE - CHIN

CHIN-1011 Beginning Chinese Language and Culture I  
04 Semester Credits
Introduction to standard spoken Chinese (Mandarin) through listening, speaking and using Chinese software on computer. Emphasis on becoming familiar with four tones of Chinese language.  
Lecture 03 hours.  Laboratory 02 hours.  
Prerequisite(s): None.

CHIN-1021 Beginning Chinese Language and Culture II  
04 Semester Credits
Continued study of standard Chinese with expansion of vocabulary. Practice in conversation on given subjects and transition from speaking to reading.  
Lecture 03 hours.  Laboratory 02 hours.  
Prerequisite(s): CHIN-1011 Beginning Chinese Language and Culture I, or departmental approval.