A. Course Description

Credits: 5

Prerequisites: CHEM 341 Quantitative Analysis

Lab Hours/ Weeks: Corequisites: None

Lecture Hours/ Week :

MnTC Goals: None

This course is intended for Chemistry majors and minors; this course contributes to Category 2 electives for the Chemistry major. Topics include instrumental methods of analysis including spectrochemical, kinetic and chromatographic methods. Includes 3 credits dedicated to lecture and 2 credits to lab.

B. Course Effective Dates: 08/20/2016 - Present

C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Understand the theoretical basis as well as the practical skill for various types of instrumental analyses.
2. Understand and recognize sources of error and methods to eliminate errors.
3. Understand the theory of different types of analyses including molecular absorption spectroscopy, molecular fluorescence spectroscopy, atomic absorption spectroscopy, kinetic methods of analysis, and chromatographic method.
4. Be able to work toward independence by taking turns in preparing all the standard solutions and reagents needed for the experiments.

E. Learning Outcomes (MN Transfer Curriculum)

This contains no goal areas.

G. Special Information

Note: First day attendance required except by instructor permission.