

Analytical Environmental Chemistry

Chemistry 317

Section: LA01

Term: 2010 Spring

Instructor: Dr. R. Goyan

Discussion Topics: The course consists of an environmental project proposed and conducted entirely by each student in the course. The student will apply the sampling, sample preparation, instrumentation, and data analysis learned from previous courses in the process of completing their project. An important aspect of this project will be method development/modification at all stages of the project, with the possibility of warranting a return to any one or more of the previously accomplished stages of the project. This is the feed back mechanism that is typical of fine tuning a method or technique prior to making any concluding remarks.

The function of the course instructor is to facilitate, and assist where necessary, the development of the student in attaining the goals set forth and defined by their proposed project.

There are no lectures in this course, but there will be numerous informal discussions with the class in the laboratory concerning the goals and objectives of the course.

0 lecture hours/week; 0 tutorial hour/week; 4 lab hours.

Grading: The students will be graded on their performance, as documented in their laboratory notebook and demonstrated in their oral presentations to the class. There will be two oral presentations per student. Each student will prepare a short oral presentation describing their project at the beginning of the semester, followed by a final presentation of their project.

Project description (written and oral) 20%

Development of the work plan (written) 10%

Results-reproducibility and accuracy (written) 30%

Final Report (written and oral) 40%

Required Texts: No required text.

Recommended Texts: Skoog, Holler and Nieman, "Principles of Instrumental Analysis", 6th Edition, 2006. Publishers, Holt Rinehart.

Daniel C. Harris, "Quantitative Chemical Analysis", 5th Edition, 1999. Publishers, Freeman & Company.

Materials/Supplies: Hardcover laboratory notebook, safety glasses, and lab coat.

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Prerequisite/Corequisite: Prerequisite: CHEM 316 and CHEM 371.
Corequisite: CHEM 372 should be taken concurrently.

Notes: None

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