Instructor:  Professor Mark A. Arnold, 230 IATL, 335-1368, mark-arnold@uiowa.edu

Class Meeting:  Lecture:  Tuesday and Thursday, 1:30 – 2:20; C129 PC
Lab. Section I:  Tuesday and Thursday, 2:30 – 5:20; E440 CB

Office Hours:  During lab periods or Mondays 1:30 – 2:30 in my office or by appointment.

Teaching Assistants:  Ryan Smith; Derek Thomas; and Binaya Shrestha (See ICON for TA office hours and contact information)

Textbook:  Quantitative Chemical Analysis, 7th edition (2007); Daniel C. Harris, W. H. Freeman & Co.  Handouts will also be provided on ICON.

Web Materials:  http://icon.uiowa.edu;  004:143:AAA Spring10 Analytical Measurements

Course Objective:  The objective of this course is to teach the basic theory and practice of modern analytical chemistry via spreadsheet assignments and experiments. Experiments will cover basic quantitative principles and instrumental methods. Emphasis will be placed on analytical procedures and data analysis.

Basic Schedule:  The course will focus on laboratory experiments designed to cover fundamental principles in analytical measurements. Initially, experiments will be performed simultaneously by all students. Subsequently, experiments will be performed on a rotation basis, where the student is exposed to a different type of analytical instrument during each rotation. These rotation experiments will be performed in teams of two students assigned by the instructor.

Course Requirements:

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<thead>
<tr>
<th>Quantity</th>
<th>Assignment</th>
<th>Points</th>
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<tbody>
<tr>
<td>3</td>
<td>Spreadsheets (100 points each)</td>
<td>300</td>
</tr>
<tr>
<td>3</td>
<td>Lab Reports (50 points each)</td>
<td>150</td>
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<tr>
<td>7</td>
<td>Lab Reports (100 points each)</td>
<td>700</td>
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<tr>
<td>2</td>
<td>Examinations (100 points each)</td>
<td>200</td>
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<td>2</td>
<td>Notebook checks (25 points each)</td>
<td>50</td>
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<td>Total Points</td>
<td>1400</td>
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Assignment of Grades:  Grade assignments will be made on the basis of a curve of the total class distribution of points. Plus/minus grades will be given sparingly.

Late Assignments:  Assignments are due at 6:00 p.m. on the specified due date. Reports must be turned in electronically as a PDF file via dropboxes in ICON. Late assignments will be penalized 5 points per calendar day after the due date. Late reports will only be accepted within 48 hours past the due date.

Laboratory Notebooks:  Each student must maintain a laboratory notebook. Experimental observations are to be recorded in your laboratory notebook in blue or black ink. Notebook checks will be made randomly during the semester.
Examinations: Exams will focus on material presented in lecture, spreadsheet and laboratory portions of the course. Problems and discussion type questions will be included.

Lab Reports: A lab report will be required for each experiment. Items to include in the report are detailed at the end of each experiment information package. Reports must be neat and easy to follow. Headings for text sections are strongly encouraged and titles for plots are required. All lab reports must be submitted directly to Professor Arnold.

Regrades: A written request for a regrade must be submitted directly to Professor Arnold. This request must specify the point for regrade consideration. In addition, all portions of the report or exam will be reviewed at the time of the regrade. Regrade requests must be submitted within one week of receiving the graded report or exam.

Laboratory Safety: Laboratory safety is a primary concern and you will be expected to act in a safe and professional manner. Eye protection is mandatory. Standard laboratory goggles are required and must be worn at all times, even if you are not actually performing an experiment. Lab coats and gloves are optional. Open toe shoes and short pants are not allowed in the lab.

Computer Usage: Each student will have access to computers in the departmental computer facility, which is located in W234 CB.

Policy on Plagiarism: All work performed in this course is expected to be your own. Many experiments will be performed in groups. However, once you leave the laboratory, no collaborative work is permitted. If you have questions regarding an experiment, see the instructor or consult the Discussion section of the ICON course web-site. In grading the assignments, the instructors will be looking for evidence of collusion. If such evidence is found, all parties involved will receive no credit for the assignment.

You will receive no credit if it is determined that the work you turn in is not your own.
CLAS Policies

Administrative Home

The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Student Academic Handbook.

Electronic Communication

University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences.

Final Examination Policies

Final exams may be offered only during finals week. No exams of any kind are allowed during the last week of classes. Students should not ask their instructor to reschedule a final exam since the College does not permit rescheduling of a final exam once the semester has begun. Questions should be addressed to the Associate Dean for Undergraduate Programs and Curriculum.

Academic Fraud

All forms of plagiarism and any other activities that result in a student presenting work that is not his or her own are academic fraud. All academic fraud is reported to the departmental DEO and then to the Associate Dean for Academic Programs and Services. See Academic Fraud at http://www.clas.uiowa.edu/students/academic_handbook/ix.shtml for the complete policy.*

Making a Suggestion or a Complaint

Students have the right to make suggestions or complaints and should first visit with the instructor, then with the course supervisor if necessary and next with the departmental DEO. All complaints must be made as soon as possible. For more information visit, Student Complaints at http://www.clas.uiowa.edu/students/academic_handbook/ix.shtml#5

DEO: Professor David Wiemer, E331 CB,

Accommodations for Disabilities

Under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, instructors provide reasonable academic accommodations for qualified students with disabilities. Students seeking academic accommodations first register with Student Disability Services and meet with a counselor in that office who reviews documentation and determines eligibility for services. Students approved for accommodations arrange to meet privately with course instructors. Visit Student Disability Services at http://www.uiowa.edu/~sds/.

Understanding Sexual Harassment

Sexual harassment is reprehensible and will not be tolerated by the University. It subverts the mission of the University and threatens the well-being of students, faculty, and staff. Visit this site (http://www.sexualharassment.uiowa.edu/) for definitions, assistance, and the full University policy.

Reacting Safely to Severe Weather

In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Public Safety web site.