

CHE 350-001: Instrumental Analysis Spring 2005

Instructor: Dr. Heather Bullen

Office: SC 454

Phone: 572-5411

Email: bullenh1@nku.edu

Text: Principles of Instrumental Analysis; Skoog, Holler, and Nieman, 5th Edition

Blackboard: Blackboard will be used in this course to post lecture materials, assignments and other information pertinent to the course.

Class Times: 1:00-1:50 pm MW, SC 402

Prerequisite: CHE 340-340L

Co requisite: CHE 350 L

Office Hours: I have an open door policy. Please stop by if you ever have questions, or contact me if you want to set up an appointment. My formal office hours are: M, W: 9-10 am and T: 9-10 am

Objectives: Obtain a sound understanding of the fundamental principles of instrumental methods of chemical analysis.

Attendance: Regular attendance is expected and tardiness is not tolerated. Material at times will not come directly from the text so it is important to come to class.

Exams: There will be three exams (Monday 2/7, Wednesday 3/16, Monday 4/13) and a Final Exam (Wednesday 5/4 1-3 pm) during the semester. The final exam will be cumulative. **No** make up exams will be given. A student missing an exam must notify the instructor in advance. On the instructor's discretion, the student may use the final exam score to count for one exam. This policy only applies to one exam.

Homework: Homework problems will be handed out during the course. These problems are designed to help ensure your understanding of the material presented in the lecture and prepare you from the exams.

Quizzes: Short in-class quizzes will be given throughout the semester. These quizzes may be announced or unannounced to address students preparedness for lecture and the understanding of the course material. Make up quizzes will not be given and the lowest quiz score will be dropped.

Grading Scheme:

Exam 1	= 16%
Exam 2	= 16%
Exam 3	= 16%
Final Exam	= 26%
Homework	= 16%
Quizzes	= 10%

Grading Scale: The letter grade for the course will be based on the final percentage scale

<u>Course Grade</u>	<u>Percentage</u>
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

Honor Code: The NKU Honor Code is in effect for this course. Failure to comply will result in a zero grade. <http://www.nku.edu/~deanstudents/HonorCode.htm>

Note: The syllabus is subject to change. Students are responsible for understanding all items on this syllabus. Any items not understood must be brought to the attention of the instructor within the first two weeks of class.

TENTATIVE COURSE OUTLINE

Topic	Chapters
<i>Measurement Basics:</i> Performance Characteristics, Figures of Merit Electrical Components and Circuits, Operational Amplifiers, Digital Electronics, S/N ratios	1-5
<i>Separation Methods:</i> Gas Chromatography, HPLC, Electrophoresis	26, 27, 28, 30
<i>Atomic Spectroscopy:</i> Components of Optical Instruments, Atomic Absorption Spectrometry, Atomic Emission Spectrometry	6, 7, 9, 10
<i>Molecular Spectroscopy:</i> Luminescence Spectroscopy, Applications of Infrared Spectroscopy, Raman Spectroscopy, Mass Spectrometry	15, 17, 18, 20