





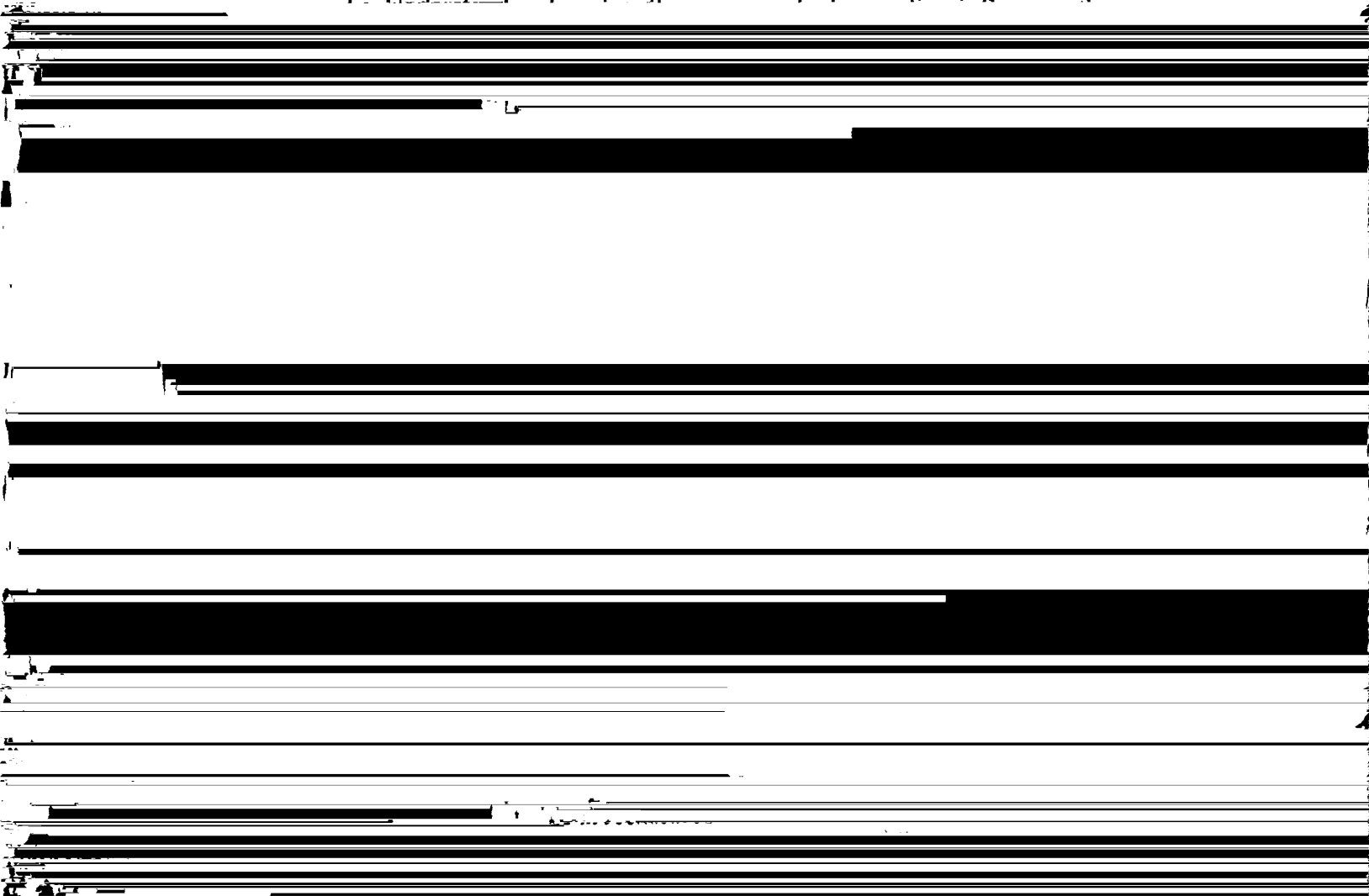
**SYLLABUS FOR CHEM 326  
ANALYTICAL CHEMISTRY II**

**I. CATALOG DESCRIPTION**

<b>COURSE TITLE:</b>	CHEM 326 Analytical Chemistry II
<b>NUMBER OF CREDITS:</b>	4cr (3c-1l-4cr)
<b>PREREQUISITES:</b>	CHEM 325 and 341
<b>COURSE DESCRIPTION:</b>	A more detailed examination of the principles of analytical chemistry. Student learns theoretical and practical aspects of sampling, data acquisition, spectroscopic, electrochemical, chromatographic, thermal, mass spectrometric, and affinity methods of analysis.

**II. COURSE OUTCOMES**

The student will be able to:





Electron impact, CI, FABS, SIMS ionization; time-of-flight, electric- and magnetic sector, quadrapole mass filters. MS-MS. Applications.

10. Review of Spectroscopic Methods 2 hours

Absorption of radiation. Absorbance, emission, and scattering. Beer's law.

11. Instrumentation for Optical Spectroscopy 4 hours

10. ICP-OES *e.g., Determination of Metals in Aqueous Environmental Samples*

11. VOLTAMMETRY *e.g., Stripping Voltammetry*

A total of twelve experiments will be performed, one per weekly class meeting. The first week is dedicated to laboratory safety/check-in, and the last week to check-out.

**IV. EVALUATION METHODS**

The specific evaluation methods for the course will be determined by the instructor. Typically, this might include weekly lecture quizzes, three to four lecture exams, four lab quizzes, 11-12 lab reports, and a comprehensive final exam. Usually, the lecture portion of the course counts for 50%, the laboratory

2004.

York: Wiley, 2001.

*Wang, Analytical Electrochemistry*. New York: John Wiley & Sons, 2006

Analytical Separations

C. E. Meloan, *Chemical Separations: Principles, Techniques, and Experiments*. New York: John Wiley & Sons, 1999.

Miscellaneous

*Richard, Quality Assurance in Analytical Chemistry*. New York: John

Wiley & Sons, 2007.

Periodicals:

*American Laboratory*

*The Analyst*

*Analytical Chemistry*

*Journal of Chemical Education*

A4 Is this course to be a dual-level course? If so, please note that the graduate approval occurs after the undergraduate.

No



C3 Are any of the resources for this course funded by a grant? If so what provisions have been made to continue

No.

C4 How frequently do you expect this course to be offered? Is this course particularly designed for or restricted to