

**COURSE:** 84.316 Analytical Chemistry Laboratory II

**SEMESTER:** Spring

**NO. OF CREDITS:** 2

**TIME:** T 1:30 - 5:30 PM **VENUE:** Olney, Room 309

**INSTRUCTOR:** Dr. David K. Ryan, Olney 318a, **Telephone:** 978-934-3698  
**Fax:** 978-934-3569 **E-mail:** [David\\_Ryan@uml.edu](mailto:David_Ryan@uml.edu)  
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### **GENERAL SCOPE**

Experiments emphasizing the topics presented in 84.314 Analytical Chemistry II are conducted.

### **SPECIFIC COURSE CONTENT**

1. Potentiometry
2. Voltammetry
3. Chromatography (Gas and Liquid)
4. Molecular Spectroscopy (UV/vis, FTIR and Fluorescence)
5. Atomic Spectrometry (Absorption and Emission)

### **GRADING POLICY**

- X Pre-labs - Prior to the lab period the student is required to prepare a pre - lab report that lists all chemicals and instruments to be used. No student will be allowed to begin the lab until the pre-lab is completed. This constitutes 25 % of the grade.
- X Short quizzes may be given on pre-lab information
- X Lab Report - Lab reports on each experiment are due one week after the lab is conducted. The lab report constitutes 50 % of the grade.
- X Attendance - Attendance is mandatory and constitutes 25 % of the grade.

### **CLASS TEXTBOOK**

- X UMass Lowell Instrumental Lab Manual downloadable in PDF format from website.

### **CO-REQUISITE**

- X Analytical Chemistry II lecture (84.314) is a required co-requisite for this laboratory which is required for all chemistry majors.

### **SPECIAL FEATURES**

iPods with instructional prelab audio/visual information will be utilized