Course Outline
CHEM 2813 –ANALYTICAL CHEMISTRY 1
Fall 2015

Professor Dr. John Murimboh
KCIC LL34
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Office Hours W 2:00 – 5:00pm, KCIC LL34

Lectures T/Th 8:30 – 10:00 am, ELL320

Labs Th/F 1:30 – 4:30 pm, ELL302

Prerequisite CHEM 1023 or CHEM 1123 with a grade of C- or higher

Textbooks

1. Harvey, *Analytical Chemistry 2.0*, **2009**. [DOWNLOAD]

Supplementary Textbooks

2. Dunnivant and Ginsbach, *Flame Atomic Absorbance and Emission Spectroscopy and Inductively Coupled Spectrometry - Mass Spectrometry*, **2012**. ISBN: 978-0-9882761-1-6 [DOWNLOAD]
3. Dunnivant and Ginsbach, *Gas Chromatography, Liquid Chromatography, Capillary Electrophoresis - Mass Spectrometry A Basic Introduction*, **2012**. ISBN: 978-0-9882761-0-9 [DOWNLOAD]
4. Harris, *Quantitative Chemical Analysis, 8e*. New York: WH Freeman, **2010**. (OPTIONAL)

Grading

Labs	20% †	
Assignments	10%	
Midterm1	10% ‡	Tuesday, September 29, 2015
Midterm2	10% ‡	Tuesday, October 27, 2015
Midterm3	10% ‡	Tuesday, November 17, 2015
Final Exam	40%	
TOTAL	**100%**	

†The penalty for late lab reports is a deduction of 20% of the maximum grade for every extra day. The laboratory is an integral part of the course. **You must earn a passing grade in the laboratory to pass the course.** Unexcused absences will result in a grade of zero for that particular laboratory session. **If you have more than one unexcused absence from the laboratory, you will be assigned a failing grade for the course.**

‡There are no makeup midterm exams. Students with a valid excuse (as determined by the Registrar) will have the weight of the midterm added to the final exam.

Assignments

Sapling Learning
https://www.saplinglearning.ca

Sapling Technical Support
Website: FAQ
Email: support@saplinglearning.com
Twitter: @saplinglearning

Description

The emphasis of this course is on the theory and applications of classical analytical techniques as well as evaluation of experimental results (analytical statistics). The following topics are included in this course: (i) an introduction to statistics relevant to analytical chemistry; (ii) theory and applications of classical analytical methods of gravimetry and titrimetry; (iii) an introduction modern analytical methods such as potentiometry, spectroscopy, and chromatography.

The knowledge gained in lectures will be applied during a laboratory practicum to acquire useful skills in the field of analytical chemistry. The training includes the use of basic chemical equipment such as volumetric glassware and analytical balances as well as more advanced instrumentation such as pH meters, UV-Vis spectrophotometers and Gas-Liquid Chromatography equipment. Some experimental data will be collected by a computer, interfaced to an instrument giving an opportunity to learn basic computerized data acquisition. Students will extensively use computers during their course work, and are expected to prepare all the laboratory reports as computer-generated printouts.

Accessible Learning Services

If you have a documented disability and require support or accommodations, please contact Dr. Abu Kamara, Coordinator, Accessible Learning Services at 902-585-1291, abu.kamara@acadiau.ca or Kathy O'Rourke, Disability Resource Facilitator at 902-585-1823, disability.access@acadiau.ca. Accessible Learning Services is located in the Fountain Commons, Lower Level.

Academic Integrity

It is your responsibility to acquaint yourself with the university policy on academic integrity. Academic dishonesty such as cheating and plagiarism are not tolerated. Any form of academic dishonesty in examinations, tests, labs, or assignments is subject to serious academic penalty. The full description of the penalties associated with academic dishonesty is outlined in the 2015/2016 Undergraduate Calendar.