



# UNIVERSITY OF CALGARY

## DEPARTMENT OF CHEMISTRY COURSE OUTLINE FALL 2016

### 1. Course: CHEMISTRY 515 – Advanced Instrumental Analysis

Lecture Sections:

LEC	DAYS	TIME	ROOM	INSTRUCTOR	OFFICE	PHONE	EMAIL	OFFICE HOURS
L01	MWF	09:00-09:50	SA 147 (SA 205)	Dr. Osthoff	SB 205	220-8689	<a href="mailto:hosthoff@ucalgary.ca">hosthoff@ucalgary.ca</a>	TWRF 12-1

Course website or Desire 2 Learn (D2L) course name: <https://d2l.ucalgary.ca/d2l/home/156689>

Departmental Office: SA 229, 220-5341, [chem.undergrad@ucalgary.ca](mailto:chem.undergrad@ucalgary.ca)

2. **Prerequisites:** Chem 311 and 315 (<http://www.ucalgary.ca/pubs/calendar/current/chemistry.html#6530>).
3. **Grading:** The University policy on grading and related matters is described sections [F.1](#) and [F.2](#) of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Laboratory	60%
In-class activity assessment	10%
Midterm exam I (Oct 28, 2016)	10%
Midterm exam II (Nov 25, 2016)	10%
Oral examination (during scheduled lab periods; week of Dec 5-9, 2016)	10%
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Total	100%

The marks for each of the course components will be recorded as a numerical score and combined as shown above to arrive at the total numerical score which will then be converted to a letter grade to be reported to the Registrar.

#### Approximate Grading Scale:

<b>A+</b>	<b>A</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>
<b>90% - 100%</b>	<b>85% - 89%</b>	<b>80% - 84%</b>	<b>76% - 79%</b>	<b>72% - 75%</b>	<b>68% - 71%</b>
<b>C+</b>	<b>C</b>	<b>C-</b>	<b>D+</b>	<b>D</b>	<b>F</b>
<b>64% - 67%</b>	<b>61% - 63%</b>	<b>56% - 60%</b>	<b>52% - 55%</b>	<b>45% - 51%</b>	<b>0% - 44%</b>

Depending on the final overall performance of the class, the minimum percentage required for any particular letter grade may be lowered.

4. **Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in [Section 3.6](#). It is the student's responsibility to familiarize herself or himself with these regulations. See also [Section E.6](#) of the University Calendar.
5. **Course Materials:** This course does not follow a single text and hence does not formally have a text book. The following are strongly recommended supplemental readings and useful reference texts:  
"Building Scientific Apparatus" by J.H. Moore et al., Cambridge University Press, 4<sup>th</sup> edition (2009).  
"Principles of Instrument Analysis" by D.A. Skoog et al., Brooks Cole, 6<sup>th</sup> edition (2006).  
"Quantitative Chemical Analysis" by D.C. Harris, Freeman, 9<sup>th</sup> edition (2016).  
"Hands-on Introduction to LabVIEW™ for Scientists and Engineers" by J. Essick, Oxford University Press, 3<sup>rd</sup> edition (2016).  
"Communicating Science: An Introductory Guide" by R. Jensen, RoguePublishing.ca (2016).

6. **Examination Policy:** All examinations will be closed book. Only non-programmable calculators (e.g., Casio FX260) are permitted for use during the final exam components of the course. Students should also read the Calendar, [Section G](#), on Examinations.
7. **Approved Mandatory and Optional Course Supplemental Fees:** The Department of Chemistry has a laboratory breakage fee. At the start of the course, the student agrees that they are now responsible for the glassware and equipment until check out. Any equipment that is missing, unusable or has been replaced during the semester will be charged to the student. All students, even those who withdraw early from the course must check out of the laboratory before the last day of lectures. Any student who fails to check out before the last day of lectures for the term will be assessed a charge of \$30.00. If this fee is not paid by the last day of the final examination period of the term, an additional \$10.00 administrative fee will be charged and university services (registration, transcripts, etc.) may be withheld.
8. **Writing across the curriculum statement:** In this course, the quality of the student's writing in assignments and exams will be a factor in their evaluation. See also [Section E.2](#) of the University Calendar.

## 9. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) **Academic Misconduct:** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties.
- (b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
- (c) **Academic Accommodation Policy:** Students needing an Accommodation because of a Disability or medical condition should contact Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities available at [http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities\\_0.pdf](http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf). Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Chemistry, Dr. Farideh Jalilvand, by email [ahugchem@ucalgary.ca](mailto:ahugchem@ucalgary.ca) or phone (403) 220-5353.
- (d) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- (e) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPPA). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also <http://www.ucalgary.ca/secretariat/privacy>.
- (f) **Student Union Information:** VP Academic Phone: 220-3911 Email: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca).  
SU Faculty Rep. Phone: 220-3913 Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca); [Student Ombudsman](#)
- (g) **Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned **off** unless instructed otherwise. Also, communication with other individuals, via laptop computers or smart phones is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
- (h) At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses ([www.ucalgary.ca/usri](http://www.ucalgary.ca/usri)). Your responses make a difference - please participate in USRI Surveys.

Department Approval: Approved by Department Head

Date: August 31, 2016

AD's Approval for alternate

Final exam arrangements: Approved by Assistant Dean

Date: September 1, 2016