



UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF CHEMISTRY
COURSE SYLLABUS
FALL 2018

1. Course: CHEMISTRY 659.21, Advances in Organic Materials

Lecture Sections: L01

TuTh, 9:30-10:45, SA 123, Dr. Sutherland (SB220, 403.220.7559 sutherlt@ucalgary.ca)

Office Hours: by appointment

Chemistry Departmental Office Science A 229, 403.220.5341, chem.undergrad@chem.ucalgary.ca

To avoid IT problems, it is recommended that the students use their U of C account for all course correspondence.

Desire 2 Learn (D2L): CHEM 659.21 L01 - (Fall 2018) - Advances in Organic Materials

<https://d2l.ucalgary.ca/>

- 2. Course Description: Lectures:** We will discuss the operating principles of small molecule organic electronic devices, including field-effect transistors, photovoltaics and light-emitting diodes. Next, we will examine critically modern examples of high performance materials stressing the relationship between molecular properties and materials design. Many of the physical techniques used, such as photochemistry and electrochemistry, will be explored through assignments to achieve quantifiable assessments.

Chem 659.21 Advances in Organic Materials

Classes will be held TuTh at 9:30-10:45, in SA 123.

The semester Schedule will be built once enrollment has been finalized, but the following important due dates are fixed:

Assignments: 1 - due 25 September;
2 - due 18 October;
3 – due 8 November.

Term papers: 1 - due 25 October;
2 – due 6 December.

Assignments: All assignments will be given a numerical grade from 0 to 10 and late reports will be deducted 2.5 marks per day. Following the due date, a group of students indicated in the schedule will ‘teach’ the class how they arrived at their answers. All assignment will total 20% of your final grade.

Presentations: Papers: The indicated student will present a paper, relevant background (15 minutes) followed by discussion for the remainder of the class. The indicated student will email the paper to the class one week prior to the talk and each student will email me three questions by noon one day prior to the talk.

Assignments: The indicated student will present their approach to answering the assignment questions in a teaching format to the class (1 lecture).

Proposals: there will be a midterm proposal presentation where each student will pitch their proposal ideas for 20 minutes using this opportunity for feedback to enhance their written proposal. Each student will get a second chance to improve their proposal pitch of their refined presentation at the end of the semester.

All presentations will total 20% of your final grade.

Term papers: Two term papers are required for this course and the details are below. You will receive a grade from 0 to 10 for each paper and late reports are subjected to 2.5 marks per day penalty. All term papers will total 60% of your final grade.