Chemistry 9521: Catalysis
Winter 2018

1. Course Information
   • Lectures: 3 hours/week; Monday and Wednesday 6:00-7:30 pm
   • Timeframe: January 8th to February 14th
   • Weight: 0.25 credit course
   • Prerequisite requirements: There is no official prerequisite for this class, but knowledge of organometallic chemistry is strongly advised.

2. Instructor Information
   Prof. Johanna Blacquiere, johanna.blacquiere@uwo.ca, BGS 2022
   • Email correspondence must be from your @uwo.ca account. Please include Chem 9521 in the subject line.

3. Course Description
   Homogeneous catalysis is commonly employed in organic synthesis as an efficient and selective method to generate high-value products. New catalytic systems are continually being reported for known and new reactions. How is one to identify what is the best catalyst? How would you go about designing a better system? We will tackle these questions by identifying suitable methods for catalyst comparison. Methods and techniques to elucidate catalyst performance (activity and selectivity) and mechanism will be covered. Examples will be taken from the literature focusing on current and useful catalytic transformations.

   Outline:
   - Fundamental principles of catalysis
   - Challenges inherent in comparing catalytic systems
   - Methods for assessing catalytic performance
   - Techniques for mechanistic analysis

4. Course Materials
   There is no required text for this course, however useful resources and references will be discussed in class. Course content will rely heavily on literature material.

5. Evaluation:
   • Assignments (50%)
     o Two assigned through the 6 weeks. Each worth 25%
   • Presentation (35%)
     o Each student will give a 15-20 min presentation
   • Participation (15%)
     o In class discussion will be an important component of this class

If illness or other serious circumstances prevents a student from completing a course requirement (assignment or presentation) valid medical or supporting documentation from the Dean’s Office must be provided as soon as possible. If the accommodation is approved, it is the student’s responsibility to contact me regarding alternative arrangements for evaluation.

In the case of illness, the student must complete the proper documentation. The Student Medical Certificate (http://studentservices.uwo.ca/secure/medical_document.pdf) must be completed for off-campus medical care or the student must request a Records Release Form (found in the Dean’s Office) if care is received on-campus at Student Health Services.
6. **Notes on Academic Honesty:**
   Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_grad.pdf

   All required papers may be subject to submission for textual similarity review to the commercial plagiarism-detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).

7. **Use of Electronic Devices:**
   Please turn your cell phones to silent and refrain from answering them during class. Use of a laptop or tablet to take notes is permitted.

8. **Health and Wellness**
   Information regarding health- and wellness-related services available to students may be found at http://www.health.uwo.ca/.

   To help you learn more about mental health and well being, Western has developed an interactive mental health learning module, found here: http://www.health.uwo.ca/mental_health/module.html