Biochemistry 9511Q: Synthetic Biology
September 2015

Coordinator/Instructors: Drs. Murray Junop (mjunop@uwo.ca) and Hong Ling (hling4@uwo.ca)

The overall theme of this course will be directed towards investigation of the latest developments in the field of Synthetic Biology. Synthetic Biology is a vast area of study that can be loosely described as those efforts, which seek to make biology easier to engineer. Many recent advances in Chemistry, Biology, Computer Science and Engineering put this area of Biology at the cutting edge of promising new developments for improved products across many industries such as medicine, energy and the environment. Emerging avenues across the field of Synthetic Biology will be highlighted with an emphasis on Genome Assembly and Editing, Drug Development, Environmental Applications, Ethics and Impact on Canadian Health and Economy.

Time Frame: Every Monday, 2:30 - 5 pm starting Sept. 14th and finishing Oct. 26th. (no class on Thanksgiving)

Location: International and Graduate Affairs Building (IGAB), room 1N05.

Evaluation:

40% Group Presentation. Comprised of 10% from group peers and 30% from Drs. Ling and Junop to the group. Groups will be established by the instructors. Topics will be at the discretion of the group, chosen from a list of topics provided by the instructors.

40% Written Summary (2 pages) of findings from the group presentation (done individually). The report is to be submitted to mjunop@uwo.ca as a word doc AND PDF no later than 4pm Friday October 30th. No late assignments will be accepted.

20% participation. Class attendance and general class discussion, 6%. Assigned critique/question on two presentations (7% for each critique).

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at: http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_grad.pdf.

Plagiarism: Students must write their essays and assignments in their own words. Whenever students take an idea or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar). 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).

For any missed tests, exams, participation components and/or assignments worth 10% or more of their final grade, students must contact the course coordinator (Dr. M. Junop) as soon as possible.

As part of a successful graduate student experience at Western, we encourage students to make their Health and Wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your graduate degree. For example, to support physical activity, all students, as part of their registration, receive membership in Western’s Campus Recreation Centre. Numerous cultural events are offered throughout the year. Please check out the Faculty of Music web page http://www.music.uwo.ca/, and our own McIntosh Gallery http://www.mcintoshgallery.ca/. Information regarding health- and wellness-related services available to students may be found at http://www.health.uwo.ca/

Students seeking help regarding Mental Health Concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty supervisor, their program director (graduate chair), or other relevant administrators in their unit. Campus mental health resources may be found at http://www.health.uwo.ca/mental_health/resources.html. To help you learn more about mental health, Western has developed an interactive mental health learning module, found here: http://www.health.uwo.ca/mental_health/module.html. This module is 30 minutes in length and provides participants with a basic understanding of mental health issues and of available campus and community resources. Topics include stress, anxiety, depression, suicide and eating disorders. After successful completion of the module, participants receive a certificate confirming their participation.

**Helpful Resources @ Western for Graduate Students**

**Writing Support Centre:**
http://www.sdc.uwo.ca/writing/  
SDC’s Learning Skills Services, Rm 4100 WSS,  
www.sdc.uwo.ca/learning  
LS counselors are ready to help you improve your learning skills. We offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counseling.

**The Student Success Centre:** http://success.uwo.ca/