Title: Biochemistry 9508S. Cancer Genomics.

Description:
This short course in Cancer Genomics will focus on recent seminal articles in the field, and will work with internet based resources containing data from this literature. Aside from understanding the genetics underlying organ-centric tumors, another objective is to gain proficiency in working with cancer genomic data using one of the available Cancer Genomics online software resources.

Course Materials:
Significant emphasis is given to primary research studies published by The Cancer Genome Atlas Consortium. See article reading list below which are available through lib.uwo.ca To become proficient with this literature, it is recommended that students view a number of videos from the Cancer Genomics series of the Biomedical and Life Sciences Collection: (http://hstalks.com/main/browse_talks.php?r=941&c=252) preceding the start of the course.

Internet resources. For example, the USCS cancer genome browser (Zhu et al. Nature Methods 6:239-240, 2009; https://genome-cancer.ucsc.edu/proj/site/hgHeatmap/), or cBioPortal (Gao et al Sci Signal. 2013 Apr 2;6(269):pl1; http://www.cbioportal.org/).

Reading list and topics for Cancer Genomics*

Pan-cancer:
URL: http://www.scopus.com/record/display.uri?eid=2-s2.0-84875758730&origin=reflist#

URL: http://www.scopus.com/record/display.uri?eid=2-s2.0-848849997982&origin=inward&txGid=06878D5E679BF8AC5754E603902BB199.aXczxbyuHHiXgalW6Ho7g3a10

Breast:
URL: http://www.ncbi.nlm.nih.gov/pubmed/26451490

URL: http://www.nature.com/articles/srep07063

Lung:
Bladder:

Prostate:


*Subject to revision. An updated reading list will be available once class registration is complete.

Methods of evaluation.
Each student will expected to present one or more of these paper(s) to the class, who will also critically evaluate the major findings (presentations and participation by non-presenters will be graded). Each student is also expected to submit concise written reports summarizing key points from their own presentation and incorporate any insights gained through in class discussion. These reports are expected to include analyses generated by the student using the cancer genomics browser, if possible, containing an analysis of the data described in the publication that the paper they have been assigned. Reports will be due no later than one week following the in-class presentation, without exception. Each student is expected to prepare their own report.

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Statement on Academic Offences
The statement: “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
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).

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).

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 counsellors 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 counselling.

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