

INTERDISCIPLINARY MEDICAL SCIENCES MODULE

Selected Topics in Medical Sciences 4930F/G

Course outline

1. Course details and important dates

Section	Component	Day	Time	Location
001	Lecture	Friday	8:30 am – 10:30 am	SEB 2200
002	Tutorial	Monday	9:30 am – 10:30 am	MSB-384
003	Tutorial	Monday	10:30 am – 11:30 am	MSB-384

Classes Start	Classes End	Final Exam Period
TBD	TBD	TBD

2. Instructor contact information

Instructor Name	Discipline	Email
Dr. Nicole Campbell	Course Instructor	nicole.campbell@schulich.uwo.ca

Please email your course coordinator with any questions you have regarding the course. The coordinator will strive to respond to email communication within a reasonable period of time, usually within 2 weekdays. Please follow up otherwise. Follow proper email etiquette and include the course code in the subject line. **Any questions that can be answered from the course outline will not receive a response.**

3. Course description

Offered jointly by Basic Medical Science Departments, this lecture course will provide students with background knowledge in a variety of techniques and topics in medical research. Major topics include disease, metabolism, proteomics and signaling pathways. Students will also be introduced to scientific writing.

4. Course design

Lecture material will be posted to Owl: <http://owl.uwo.ca>. Any changes to the lecture order will be indicated on the OWL site. Assignments will be handed in electronic format to Owl and will be compared for plagiarism. Students will be able to view their results before the final submission. Students with Owl issues should contact the Computer Support Centre at 519-661-3800 or itshelp.uwo.ca

5. Learning Outcomes

Upon successful completion of this course, students will be able to:

- Draw from multiple basic medical science disciplines (e.g., pathology, epidemiology, biochemistry, anatomy, physiology, pharmacology, immunology) to use an interdisciplinary approach to understand and evaluate a chosen disease.
- Describe the basic structure and organization of scientific literature and recognize variations that can exist.
- Critique primary scientific literature by summarizing the main findings and identifying the strengths, weaknesses and limitations within a research study.
- Conduct an effective search inquiry using an appropriate medical literature database and summarize pertinent information.
- Evaluate scientific literature and synthesize concepts to create a literature review in a specific discipline of the chosen disease.
- Develop written and oral skills to communicate information, arguments, and analyses accurately and reliably, to a range of audiences.
- Create a concept map to explain the value of an interdisciplinary approach to medical sciences.

6. Lecture schedule

Date	Instructor and contact information	Topic
Week 1	Dr. Nicole Campbell nicole.campbell@schulich.uwo.ca	Introduction and Welcome
Week 2	Dr. Mark Speechley mark.speechley@schulich.uwo.ca	Epidemiology of diabetes in Canada and worldwide. Case study
Week 3	Dr. Cheril Clarson Cheril.Clarson@lhsc.on.ca	Pediatric diabetes: Type 1 and type 2 diabetes in children and adolescents
Week 4	Dr. Savita Dhanvantari sdhanvan@lawsonimaging.ca	Molecular mechanisms of diabetes; immune responses; type 1 diabetes; imaging
Week 5	Dr. Robert Gros rgros@robarts.ca	Signal Transduction Pathways and Diabetes
Week 6	Midterm – in class	
Week 7	Dr. Subrata Chakrabarti schakrab@uwo.ca	Complications of diabetes and the underlying pathology
Week 8	Fall Study Break/Reading Week	
Week 9	Dr. Zia Khan zia.khan@schulich.uwo.ca	Stem cells for the treatment of diabetes and its complications
Week 10	Dr. Rennian Wang rwang@uwo.ca	Islet cell growth, maturation and regeneration
Week 11	Dr. Nica Borradaile nica.borradaile@schulich.uwo.ca	Understanding the links between obesity, metabolic syndrome, and type 2 diabetes
Week 12	Dr. Michelle Mottola mmottola@uwo.ca	Gestational diabetes

Tutorial Schedule

Date	Topic
Week 2	Scientific Writing and Referencing
Week 3	Paper Critique
Week 4	Experimental Design
Week 5	Statistics
Week 6	No tutorial
Week 7	Literature Reviews
Week 8	No tutorial
Week 9	Information Searching (SSC 1032)
Week 10	Peer Review – Outlines
Week 11	Animal Models and Translational Research
Week 12	Peer Review – Final Drafts
Week 13	Concept map
Week 14	No tutorial

7. Evaluation

A detailed and comprehensive set of regulations concerning the scheduling of tests, assignments, etc. is available at:

http://www.uwo.ca/univsec/academic_policies/examinations.html

At least one week prior to the deadline for withdrawal from a course without academic penalty, students will receive assessment of work accounting for at least 15% of their final grade. For more details, refer to the link below.

http://www.uwo.ca/univsec/pdf/academic_policies/exam/evaluation_undergrad.pdf

Component	Format	Weighting	Date
Assignment 1 – Paper Critique	Written	20%	Due @ end of Week 5
Assignment 2 – Literature Review	Written	20%	Due @ end of Week 12
Tutorials *	Participation	10%	During tutorial
Midterm	Multiple choice and short answer	20%	Week 6 – in class
Final Exam	Multiple choice and short answer	30%	During final exam period

*The tutorial mark will be based on participation during the tutorial sessions (see schedule). This will include various types of tasks during the time period. Students may be excused from one tutorial for a valid reason provided that they make arrangements.

8. Resources

All materials will be provided on OWL

There is no required textbook for this course, however the following resources might be of interest to you.

McMillan, Victoria. E. *Writing Papers in the Biological Sciences*. 4th Ed. Bedford and St. Martin's. Boston. 2006

Pechenik, Jan. *A Short Guide to Writing about Biology*. 6th Ed. Pearson, New York. 2007

9. Statement on Academic Offences

"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 website:

http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf

10. Turnitin and other similarity review software

All assignments will be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. Students will be able to view their results before the final submission. 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 Western University and Turnitin.com (<http://www.turnitin.com>).

Computer-marked multiple-choice tests and/or exams will be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

11. Absence from Course Commitments

A. Absence for medical illness:

Students must familiarize themselves with the Policy on Accommodation for Medical Illness for Undergraduate students, located at: <https://studentservices.uwo.ca/secure/index.cfm>

Statement from the Academic Counselling Office, Faculty of Science (for Science and BMSc students)

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to the Dean's office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately. For further information please see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf

A student requiring academic accommodation due to illness should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services. The form can be found at: http://www.uwo.ca/sci/undergrad/academic_counselling/resources_and_self_service/forms.html

Please note that the format of a make up exam is at the discretion of the course manager.

B. Absence for non-medical reasons:

Students will not be accommodated for course commitments that are missed due to non-medical reasons. Please pay attention to the academic calendar and final exam period when booking any trips.

C. Special Examinations

A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents.

To provide an opportunity for students to recover from the circumstances resulting in a Special Examination, the University has implemented Special Examinations dates. These dates as well as other important information can be found at the following link:

http://www.uwo.ca/univsec/pdf/academic_policies/exam/definitions.pdf

12. Additional Information/Statements

Statement on Use of Electronic Devices

Students may only bring pencils, pens and erasers to exams. No other material or electronic devices are permitted.

Due to safety concerns, the use of computers or cellular phones will not be permitted during laboratories unless otherwise stated.

Statement on Rounding of Marks

Across the Basic Medical Sciences Undergraduate Education programs and within the IMS module we strive to maintain high standards that reflect the effort that both students and faculty put into the teaching and learning experience during this course. All students will be treated equally and evaluated based only on their actual achievement. Final grades on this course will be rounded up to the next whole integer, e.g. a 73.5 becomes a 74 and marks WILL NOT be bumped to the next grade or GPA, e.g. a 79 will NOT be rounded up to an 80, an 84 WILL NOT be rounded up to an 85, etc. The mark attained is the mark you achieved and the mark assigned; requests for mark "bumping" will be denied.

Copyright Statement

Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws.

Accessibility Statement

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

13. Support Services

Registrarial Services: <http://www.registrar.uwo.ca>

Academic Counselling (Science and Basic Medical Sciences):
http://www.uwo.ca/sci/undergrad/academic_counselling/index.html

USC Student Support Services: <http://westernusc.ca/services/> Student Development
Services: <http://www.sds.uwo.ca>

Student Development Services: <http://www.sdc.uwo.ca>

Student Health Services: <http://www.shs.uwo.ca/>

Appeal Procedures:
http://www.uwo.ca/univsec/pdf/academic_policies/appeals/appealsundergrad.pdf

Students that are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options how to obtain help.