

**Course Name: Analytic Epidemiology**

**Course Number: EPIB 9553B**

Course outline for **Winter 2020**

**1. Course details and important dates**

Section	Component	Day	Time	Location
001	Lecture	Monday	10:00 - 13:00	Kresge 203
				WIRB 1110 (on January 13 only)

Classes Start	Classes End	Final Exam Period
January 6	April 6	April 11 or later

**2. Instructor contact information**

Instructor Name	Phone	Email
Dr. Igor Karp	X86272	ikarp@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.**

**TA:** Joshua Wienter

**E-mail:** jwiener2@uwo.ca

Office hours: by appointment

**3. Course description**

The purpose of the course is to consolidate and advance the students' critical understanding of the theory of medical etiological research, with particular emphasis on validity and methods for its assurance in this genre of research.

**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](mailto:itshelp.uwo.ca)

## 5. Learning Outcomes

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

- have advanced their understanding of the theory of medical etiological research
- have improved their ability to critically evaluate epidemiological studies

## 6. Lecture schedule

Week	Date	Topic	Szklo & Nieto	Rothman
1	January 6	Introduction and course orientation		
2	January 13	Overview of 'study designs'	Ch. 1 (1.1; 1.4); Ch. 2; Ch. 3	Ch. 3; Ch. 4; Ch. 5
3	January 20	Objects design		
4	January 27	Selection bias	Ch. 4 (4.2)	Ch. 7 (pp.124-128)
5	February 3	Information bias	Ch. 4 (4.3)	Ch. 7 (pp.133-136)
6	February 19	Confounding bias	Ch. 5 (5.1; 5.2; 5.4 - 5.6)	Ch. 7 (pp.136-142)
7	February 17	Family Day – No classes		
8	February 24	Methods for dealing with confounding	Ch. 7	Ch. 10; Ch. 12 (pp. 218-233); Ch. 13 (242-249)
9	March 2	Introduction to DAGs	Ch. 5 (5.3)	
10	March 9	Efficiency optimization		
11	March 16	Effect-measure modification	Ch. 6	Ch. 11
12	March 23	Student presentations	Ch.9	
13	March 30	Student presentations	Ch.9	
14	April 6	Student presentations	Ch.9	

## 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](http://www.uwo.ca/univsec/academic_policies/examinations.html)

Component	Format	Weighting	Week
Assignment	Written	20%	Week 8
Presentation	Oral	30%	Week 12-14
Final Exam	Multiple choice and short answer	50%	During final exam period

## 8. Resources

### Recommended textbooks:

- Primary
  - Szklo M, Nieto FJ. *Epidemiology: Beyond the basics*, 4<sup>th</sup> ed. Sudbury, MA: Jones and Bartlett, 2018.
  - Rothman KJ. *Epidemiology: An introduction*, 2<sup>nd</sup> ed. New York: Oxford University Press, 2012.
- Secondary
  - Miettinen OS, Karp I. *Epidemiological research: An introduction*. Dordrecht: Springer, 2012.

Selected chapters from the recommended textbooks and articles for reading and discussion will be provided to students on the course web-site (OWL).

## 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/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_grad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.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:

It is current policy that students who are unable to write a test or examination or other form of course evaluation are required to obtain a medical certificate that is taken to the Academic Counseling Office, NCB 280 (for Science and Basic Medical Science students) or to your appropriate Home Faculty Counseling Office. In the case of an unexpected absence on compassionate grounds, documentation is also requested. **Such documentation must be submitted by the student directly to the Academic Counseling office and not to the instructor.** An academic counselor in that office will review and either approve or deny the accommodation request. It will be the Academic Counseling office that will determine if accommodation is warranted. This policy applies to all forms of assessment, including evaluations that are less than 10%.

Students must familiarize themselves with the Policy on Accommodation for Medical Illness for Undergraduate students, located at:

[http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf)

### **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.

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/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf)

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

## **12. Additional Information/Statements**

### **Statement on Use of Cell Phones and Electronic Devices**

The Schulich School of Medicine & Dentistry is committed to ensuring that testing and evaluation are undertaken fairly across all our departments and programs. For all tests and exams, it is the policy of the School and the IMS program that any electronic devices, i.e., cell phones, tablets, cameras, or iPod are strictly prohibited. These devices **MUST** be left either at home or with the student's bag/jacket at the front of the room and **MUST NOT** be at the test/exam desk or in the individual's pocket. Any student found with one of these prohibited devices will receive a grade of zero on the test or exam. Non-programmable calculators are only allowed when indicated by the instructor. The Department of xxx is not responsible for stolen/lost or broken devices.

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

### **Statement on Rounding of Marks**

*Across the Basic Medical Sciences Undergraduate Education programs, 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, irrespective of the number of decimal places used in marking individual assignments and tests, will be calculated to one decimal place and rounded to the nearest integer, e.g., 74.4 becomes 74, and 74.5 becomes 75. Marks **WILL NOT** be bumped to the next grade or GPA, e.g. a 79 will **NOT** be bumped up to an*

*80, an 84 WILL NOT be bumped 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/counselling>

USC Student Support Services: <http://westernusc.ca/services/>

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

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

Appeal Procedures:

[http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/appealsundergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/appealsundergrad.pdf)

Students that are in emotional/mental distress should refer to Mental Health@Western [https://www.uwo.ca/health/mental\\_wellbeing/self/student.html](https://www.uwo.ca/health/mental_wellbeing/self/student.html) for a complete list of options how to obtain help.