

**UNIVERSITY OF LETHBRIDGE**  
**FACULTY OF HEALTH SCIENCES**  
**HLSC 2003 – EPIDEMIOLOGY**  
**Course Outline – Spring, 2015**

**INSTRUCTOR:** Ali Walker  
**OFFICE:** M3047 (Markin Hall)  
**PHONE:** 403.332.4097  
**EMAIL:** [ali.bowden@uleth.ca](mailto:ali.bowden@uleth.ca)  
**OFFICE HOURS:** Wednesday and Friday, 0900 – 1100  
**CLASS LOCATION:** TH 204 (Turcotte Hall)  
**CLASS TIME:** Tuesdays and Thursdays 1340 – 1455

**COURSE TA'S**

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Heather Nixdorff ([h.nixdorff@uleth.ca](mailto:h.nixdorff@uleth.ca))  
Kat Chief Moon- Riley ([kathrina.chiefmoonri@uleth.ca](mailto:kathrina.chiefmoonri@uleth.ca))

**COURSE DESCRIPTION**

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Epidemiology examines how disease is distributed in human populations, the factors that influence or determine that distribution, and actions that reduce disease burden. Epidemiology is a cornerstone for public health. It is the basic science of disease prevention. In this course you will learn the fundamental principles, concepts and methods of epidemiology, together with common applications for practice.

**LEARNING OBJECTIVES**

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By the end of this course you will be able to:

1. Identify and describe fundamental principles and concepts in epidemiology.
2. Identify and describe basic epidemiologic measures and study designs.
3. Describe common applications of epidemiology in public health.

**COURSE MATERIALS**

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- Required Text: Bonita, R. et al. (2006). [Basic Epidemiology](#) (Available free online). World Health Organization.
- Optional Text: Webb P. & Bain, C. (2011). [Essential Epidemiology](#). Cambridge, UK: Cambridge University Press.
- Supplemental Readings: Additional readings will be posted on Moodle as resources for students to expand and clarify concepts. Any supplemental readings that are required readings will be labelled as such.
- An iClicker (device or phone app) is **required** for this course and must be brought to each lecture.

## BREAKDOWN OF COURSE ASSIGNMENTS

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Assignment	% of Final Grade	Due Date
Quiz 1	15%	Jan 29 <sup>th</sup>
Mid-term Exam	25%	Mar 3 <sup>rd</sup>
Quiz 2	15%	Mar 26 <sup>th</sup>
Final Exam	25%	TBA (week of April 21 <sup>st</sup> )
iClicker Participation	10%	Ongoing
Group Assignments	10%	Ongoing

### TESTS

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Tests will be cumulative and will take place during regular class time. Material presented by guest lectures will also be included in the tests. **Please bring a calculator** to all tests as students will not be permitted to use calculator functions on their cell phones.

### PARTICIPATION

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Participation marks will be assessed based on **active engagement activities** (10%) and **iClicker performance** (10%). Each student will be allowed 2 absences from class without penalty to their participation mark. Otherwise, students must be present in class to receive credit for this work. To receive iClicker credit for a given class, a student must answer at least 75% of iClicker questions posed in a class using an iClicker registered under his or her name ([link to register](#)).

### CLASSROOM ETIQUETTE & LATE ASSIGNMENTS

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Students are expected to attend all classes, arrive on time, and stay for the duration of class, unless prior arrangements have been made. Turn cell phones to silent and refrain from using electronic devices unless it is related to course work/activities.

It is expected that students will adhere to professional standards for all electronic communications. For example, e-mails should have a greeting, full sentences, and a salutation. Please specify the nature of your e-mail in the subject line. E-mails will be responded to as quickly as possible, but the instructor will not respond to e-mails during evening hours or on weekends unless they are of an urgent nature.

Instructor communication will only occur through the student's uleth.ca e-mail account so be sure to forward this email to any other personal e-mail accounts that you may be using. If you leave voice mail, be sure to leave your name and telephone number, and indicate the course you are calling about.

It is expected that assignments will be submitted on time, and in the format outlined by the instructor, unless prior arrangements have been made. Late assignments will be deducted 5% per day up to a total of ten days; after ten days, assignments will not be accepted for grading. Assignments not submitted in the format outlined by the instructor (e.g. hard copy, Turnitin, Moodle, etc.), will also receive a 5% deduction.

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## GRADING BREAKDOWN

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The grading system for this course is consistent with that established in the Faculty of Health Sciences, effective May, 2002.

Letter	GPA	Percent	Letter	GPA	Percent
A+	4.0	95 - 100%	C+	2.3	71 - 74.9%
A	4.0	91 - 94.9%	C	2.0	67 - 70.9%
A-	3.7	87 - 90.9%	C-	1.7	63 - 66.9%
B+	3.3	83 - 86.9%	D+	1.3	59 - 62.9%
B	3.0	79 - 82.9%	D	1.0	55 - 58.9%
B-	2.7	75 - 78.9%	F	0	0 - 54.9%

## PLAGIARISM STATEMENT

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The University of Lethbridge subscribes to Turnitin.com, a plagiarism detection service. Please be advised that student work submitted for credit in this course may be submitted to this system to verify its originality. Students must be able to submit both electronic and hard copy versions of their work upon request.

## COPYRIGHT STATEMENT

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All University of Lethbridge students, faculty and staff must comply with Canadian law and institutional license agreements pertaining to copyright. At the same time, keeping abreast of our copyright obligations and options is a complex task as copyright matters locally and globally are in flux and are likely to remain so for at least the near future. The University's Copyright website ([www.uleth.ca/copyright](http://www.uleth.ca/copyright)) is a source of current copyright information that includes:

- answers to common copyright questions (see the [FAQs](#)),
- guidance on whether you need permission or a license to copy a particular work (see the [Copyright Permissions Flow Chart](#)),
- guidance on assessing whether fair dealing may apply to specific instances of copying you wish to undertake (see the [Guidelines for Copying under Fair Dealing](#)), and
- a [permissions look-up tool](#) to help you determine the kinds of copying and other uses permitted by the Library's license agreements covering specific online journals and other online resources.

You are encouraged to contact the University Copyright Advisor ([copyright@uleth.ca](mailto:copyright@uleth.ca)) for assistance with any copyright questions or issues.

## ACCOMMODATIONS FOR STUDENTS WITH A DISABILITY

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Reasonable accommodations are available for students who have a documented disability. If you have been diagnosed with a disability, there is no need to face the challenge of University without support. Please contact the Accommodated Learning Centre at 403-329-2766 to set up an appointment <http://www.uleth.ca/ross/counselling/index.html>. After registering with the Accommodated Learning Centre, your instructor will be notified by a formal letter of any accommodations you require. In addition, students are responsible for requesting accommodations from the instructor at least **\*two weeks\*** in advance of the evaluation date. The instructor and student are jointly responsible for arranging the resources needed for the evaluation process.

## COURSE SCHEDULE

Classes will consist of 75-minute sessions, twice a week. Most classes will be comprised of an interactive lecture followed by group work. Course lectures and marks will be posted on Moodle. Assignments will be distributed during class. This schedule is subject to change.

CLASS	DATE	TOPIC	REQUIRED BONITA ET AL.	OPTIONAL WEBB & BAIN
1	Jan 8	What is epidemiology?	Ch. 1	Ch.1
2	Jan 13	Key concepts in epidemiology	Ch.1-2	Ch. 1-2
3	Jan 15	Measuring disease frequency I	Ch.1-2	Ch. 2-3
4	Jan 20	Measuring disease frequency II	Ch.1-2	Ch. 2-3
5	Jan 22	Measuring the burden of disease	Ch.1-2	Ch. 2-3
6	Jan 27	Cross-sectional, case-control studies	Ch. 3	Ch. 4
7	Jan 29	<b>Quiz 1 – In class</b>	-	-
8	Feb 3	Cohort studies	Ch. 3	Ch. 4
9	Feb 5	Experimental studies	Ch. 3	Ch. 4
10	Feb 10	Difference measures (attributable risk)	Ch. 3	Ch. 5
11	Feb 12	Causation and error in epidemiology	Ch. 5	Ch. 7
	Feb 16-20	<b>Reading Week – No Class</b>	-	-
12	Feb 24	The challenge of confounding	Ch. 3	Ch. 8
13	Feb 26	Systematic reviews		Ch. 11
14	Mar 3	<b>Mid-Term Exam – In class</b>		
15	Mar 5	Infectious disease I	Ch. 7	Ch. 12
16	Mar 10	Infectious disease II	Ch. 7	Ch. 12-13
17	Mar 12	Infectious disease III	Ch. 7	Ch. 12-13
18	Mar 17	Disease prevention	Ch. 6	Ch. 14
19	Mar 19	Disease screening I	Ch. 6	Ch. 15
20	Mar 24	Disease screening II	Ch. 6	Ch. 15
21	Mar 26	<b>Quiz 2 - In class</b>	-	-
22	Mar 31	GIS in epidemiology	See Moodle	
23	Apr 2	Genetic epidemiology	See Moodle	
24	Apr 7	Epidemiology as evidence for policy	Ch. 10	
25	Apr 9	Nutritional epidemiology	See Moodle	
26	Apr 14	Social and environmental epidemiology	See Moodle	
27	April 16	Final words; exam review		
	Date: TBA	<b>Final Exam – TH204 (2 hrs)</b>		