

**Course: Introduction to Epidemiology—Online**  
**Term: Summer 2017 (June 1 – July 31<sup>th</sup>)**  
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**Textbook:** Epidemiology (fifth edition), 2013 by Leon Gordis

### **Course Objectives**

This course will introduce you to the foundational concepts of epidemiology. We will examine study design types and how to choose the appropriate one using real world examples. You will learn the equations used for calculating risk as well as how to control for bias and confounding. We will also explore public health policy and the common ethical issues encountered in epidemiologic studies. Additionally, the project gives you the opportunity to critically examine and analyze a study on a topic that interests you.

### **Course Overview and Requirements**

This course is an 8-week (June 1<sup>st</sup>-July 29<sup>th</sup>) course taught through a series of online modules that can be accessed in Blackboard at any time and can be viewed as many times as needed. Blackboard can be accessed at <https://canopy.uc.edu> your **Central Login** username and password for access.

Students will be assessed by four homework/discussion board assignments, a synchronized chat session, a project, and two exams: midterm and final. Both exams will be timed and available on a specific day and time period through Blackboard.

**Modules:** This course contains “modules,” which are Flash movies that include audio, video, and quiz questions. ***These questions are not graded.*** Depending upon your computer and the speed of your Internet connection, they may take a minute to several minutes to load. Please be patient. If you have significant issues loading them, refer to the **Trouble-Shooting Tips** in the **Online Student Guide** found in Blackboard. ***You will need the latest version of Flash Player to view the modules.*** Supplementary handouts for each of the modules are also available in Blackboard. ***You will not be graded on whether you complete the modules.*** This is your responsibility to keep up with the course, but I do not monitor your viewing of the modules.

**Homework and Discussion Board:** There will be four homework/discussion board assignments (three assignments involving calculations and one assignments using the discussion board) that are worth 10 points each, for a total of 40 points. All assignments, respectfully, are due on **Friday at 11:59pm**.

For all assignments, you will access and submit those in Blackboard in the **Assignments** tab. You may also access the discussion board prompts through the **Discussion Board** tab. All posts should reflect:

- Critical analysis of the topic

- The use of examples to support your argument (can be from the textbook or journal articles)
- Good writing skills (includes grammar, word choice, and overall organization)
- Presentation of new ideas/concepts that promotes further discussion
- Minimum length of 100 words (replies are a minimum of 50 words)
- Be posted by 11:59pm on the due date (early posts are encouraged so others can respond)

Your original post is worth up to 6 points and will be graded following the rubric below. Your reply to at least one classmate is worth up to 4 points. **“I agree” is not a satisfactory response!** Please keep all feedback respectful and constructive—any inappropriate or derogatory language will not be tolerated and may result in an “Incomplete” or “F” for the course. If you are unsure of how to post to the board, please refer to the **Online Student Guide** in Blackboard.

Points	Discussion Board Post Grading Criteria
6	<b>Excellent:</b> Post shows critical thinking and stimulates the discussion. Provides examples and/or details to strengthen the response. Encourages other responses and brings new ideas to the table. Includes excellent grammar, spelling, organization of thoughts, and clarity.
4	<b>Good:</b> Post shows some critical thinking and occasionally encourages discussion. Organization of thoughts is clear, and writing is free of spelling/grammar errors.
2	<b>Average:</b> Post lacks clarity and occasionally wanders off topic. Uses personal opinion instead of examples/details to strengthen argument. Includes a few minor spelling/grammar errors.
1	<b>Minimal:</b> Post barely addresses topic and shows no critical thinking. Mainly based on personal opinion and includes multiple grammar/spelling errors.
0	<b>Poor:</b> Post shows no critical thinking and does not add anything valuable to the discussion. Consists almost entirely of personal opinion. Many grammar/spelling errors and poor word choices.

Discussion board assignments may require you to select studies from Epidemiology journals. You can access these in-person or online. To gain online access to UC’s Health Sciences Library, go to <http://www.libraries.uc.edu/hsl/>. Choose “Off Campus Access” from the **QuickLinks** menu bar on the left. You will need to use your **Central Login** username and password for access. Other valuable online resources are available under the **Web Resources** tab)

**Synchronized Chat Sessions:** There will be four synchronized chat sessions scheduled during the quarter (see weekly schedule below) led by the instructor, discussing different topics that are TBD. You are required to participate in **ONE** chat session (worth 10 points towards your homework grade). If you would like to participate in the other sessions, people who have not had a session will get first priority. The remaining slots will be on a first come first serve basis. You will be required to inform the TA which chat(s) you will be participating in **no later than 24 hours prior to the scheduled chat** so that the instructor has an idea of how many students to expect. We are only allowing **10 people per session** to participate. It is possible

that if this is your 2<sup>nd</sup> session, we may ask you to not actively participate to give first-timers appropriate opportunity. If the sessions are booked, you may be asked to participate in another session, so choose your date as soon as possible.

We may add additional chat sessions as needed.

Any conflicts with scheduled chats need to be brought up with the TA as soon as possible. The chats will last approximately 30-45 minutes each, depending on how much discussion is taking place.

Directions on how to access the chat sessions, as well as directions to ensure that your computer has all of the correct settings, will be made available prior to the scheduled chat sessions.

**Project:** The project will consist of a thoughtful exploration of designing an epidemiologic study. The purpose of this project is not to design the perfect study, but rather to appreciate the complexities of study design from a variety of perspectives and to refine your epidemiologic thinking process with regard to these complexities. You will choose a research topic of interest and compare and contrast two possible study designs for addressing that topic of interest.

Refer to the **Assignments** tab in Blackboard for more detailed instructions.

**Exams:** Both exams will consist of short answer questions. The midterm includes approximately 30 questions, and the final is comprehensive with approximately 50 questions. Details about access, time allotted, etc. will be made available prior to the exams. Review the test-taking guidelines in the **Online Student Guide** in Blackboard **before** taking any online test. There will be two “practice” quizzes available so that you can solve any potential problems before taking a graded exam.

## Grading

Assignment	Percent of Total Grade
Homework/Discussion Board	15 %
Synchronized Chat Session	
Project	20 %
Midterm	30 %
Final	35 %

### Course Policies

**1. Email:** Please direct questions regarding timelines, homework assignments, and logistics of exams (times, instructions, etc) to the TAs **first**. Send questions to both TAs. If either TA is unable to answer your question, she will direct it to the instructor. Questions concerning grades or a personal matter should be directed to me. Emails will be answered within 24-48 hours, although often you will hear back within 12-24 hours. I am always available for questions and am very happy to schedule a meeting to discuss anything face-to-face. If you have a question about Blackboard or issues with the modules, please refer to the help documentation located in the **Online Student Guide**. Additionally, Blackboard Support is available every day of the week at 513-556-1602 or [blackboard@uc.edu](mailto:blackboard@uc.edu).

**2. Due Dates:** For every day a homework assignment, project or exam is late, there will be a 10% deduction from your grade for that assignment. *If you have unusual circumstances or a family emergency, please let the TA and the instructor know.*

**3. Plagiarism:** In your project, you may paraphrase the work of another by putting it into your own words. However, any sentence or long series of words copied from another source (including the Internet) must appear within quotation marks (“xxxx”) and a reference to the original given. Any other usage is plagiarism, and in addition to being unethical, will be graded the same as if you did not do any work.

This rule applies to exams!

## Weekly Schedule

Week	Readings and Modules	Assignments Due
1	Read chapters 1-4 in the textbook Complete the following modules: <b>Course Introduction Module</b> <b>Module 1: Introduction and Definitions</b> <b>Module 2: Dynamics of Disease (2 parts)</b> <b>Module 3: Morbidity and Mortality (2 parts)</b> Total Time: 1 hour, 35 minutes	<b>Due Friday 6/9 by 11:59pm:</b> <ul style="list-style-type: none"> <li>• Introduce yourself in the Discussion Board</li> <li>• Complete HW #1 (Incidence/Prevalence) in Blackboard</li> </ul>
2	Read chapters 9 and 10 in the textbook Complete the following modules: <b>Module 4: Cohort Studies (2 parts)</b> <b>Module 5: Case Control Studies (2 parts)</b> Total Time: 1 hour, 15 minutes	<b>Due Friday 6/16 by 11:59 pm:</b> <ul style="list-style-type: none"> <li>• Complete HW #2 (Epidemiology History example) in Blackboard</li> </ul>
3	Read chapters 11 -14 in the textbook Complete the following modules: <b>Module 6: Risk Estimation (2 parts)</b> <b>Module 7: Causation (2 parts)</b> Total Time: 1 hour, 10 minutes  <b>*Chat Session #1, Wednesday (6/21) @ 6:30pm*</b>	<b>Due Friday 6/23 by 11:59 pm:</b> <ul style="list-style-type: none"> <li>• Complete HW #3 (Rates and Proportions) in Blackboard</li> </ul>
4	Read chapter 15 Complete the following modules: <b>Module 8: Bias</b> <b>Module 9: Midterm Review (2 parts)</b> Total Time: 51 minutes	<b>Due Friday 6/30 by 11:59 pm:</b> <ul style="list-style-type: none"> <li>• Midterm</li> </ul>
5	Review chapter 15 Read chapters 7 and 8 Complete the following modules: <b>Module 10: Confounding (3 parts)</b> <b>Module 11: Randomized Clinical Trials (2 parts)</b> Total Time: 1 hour, 30 minutes  <b>*Chat Session #2, Thursday (7/6) @ 6:30pm*</b>	<b>Due Friday 7/7 by 11:59 pm:</b>
6	Read chapters 5, 18, and 19 Complete the following modules: <b>Module 12: Screening (2 parts)</b> <b>Module 13: Public Health Policy (2 parts)</b> Total Time: 1 hour, 24 minutes  <b>*Chat Session #3, Wednesday (7/12) @ 6:30pm*</b>	<b>Due Friday 7/14 by 11:59 pm:</b> <ul style="list-style-type: none"> <li>• Complete HW #4 (Screening exercise) in Blackboard</li> </ul>
7	Read chapters 16 and 20 Complete the following modules: <b>Module 14: Genetic Epidemiology (2 parts)</b> <b>Module 15: Ethical Considerations (2 parts)</b> Total Time: 1 hour, 11 minutes  <b>Chat Session #4, Monday (7/17) @ 6:30pm*</b>	<b>Due Friday 7/21 by 11:59 pm:</b> <ul style="list-style-type: none"> <li>• Project Due</li> </ul>

8	Complete the following modules: <b>Module 16: Final Review</b> Total Time: 21 minutes	
<b><u>Final Exam Due Date: 7/31 by 11:59 pm</u></b>		