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Health Services Administration Syllabi Fall 2019

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2019

### HECO 567-ONL Applied Epidemiology

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## HECO 567: Applied Epidemiology

Fall 2019

Department of Health Services Administration  
College of Professional Sciences  
Xavier University

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<b>Schedule:</b>	Online
<b>Credit Hours:</b>	3 Graduate Credit Hours
<b>Pre-requisites:</b>	none
<b>Faculty:</b>	Eileen S. Alexander, PhD Assistant Professor, Health Services Administration
<b>Office:</b>	Schott Hall, Room 406
<b>Office/ Open Labs:</b>	<b>Wednesday 700-1000 virtual lab:</b> text 513-377-5586 & talk or Zoom videoconference <b>Or, by appointment</b> <a href="mailto:dalek2@xavier.edu">dalek2@xavier.edu</a> or <a href="mailto:alexandere2@xavier.edu">alexandere2@xavier.edu</a> <b>Locally based online students are welcome: Wednesday 130-430pm in Schott 406</b> <i>If the door is shut, or I am with another student, you may go to Ms. Janzen's office in Schott 404, near the elevator, and she will check with me so that you can be assured of a meeting time. I am here often. If you are busy during my routine office hours, you can make an appointment at a more convenient time.</i> <b>Important: always make an appointment to request any grade review or grading questions.</b> This can be a phone or virtual appointment. <b>Always email or meet with me prior to listing me as a reference,</b> and I'll share information about the process with you so that you can optimize your reference.
<b>Response Policy:</b>	All efforts will be made to respond to students within 24-48 hours Monday-Friday and within 48-72 hours Saturday-Monday. I'm here to support your learning goals. Call or text my cell if you become anxious or overly frustrated by an assignment. I want learning to be a positive, albeit hardworking, experience!
<b>Office Phone:</b>	(513)745-4957
<b>Cell Phone:</b>	(513) 377-5586; please do not call or text from 1000pm-800am EST
<b>E-mail:</b>	<a href="mailto:alexandere2@xavier.edu">alexandere2@xavier.edu</a> <b>Type "HECO567" in the subject header to color code your email for my attention. It is helpful to state the name of the assignment, as listed in the syllabus, in the body of the email.</b>

### HECO567 Course Description (from the Xavier University Catalog):

Students will be introduced to epidemiologic concepts, skills, and data; the application of epidemiology to population health and health services; and the application of epidemiologic literature in health services management through an applied project. Methods to determine risk factors for health problems will be discussed and examined in this project.

### Course Objectives:

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

- Describe the origins of epidemiology and its importance to the health of human populations
- Demonstrate understanding of the vocabulary used by epidemiologists
- Apply epidemiologic principles, terminology and risk measures to assess population health outcomes
- Demonstrate understanding of screening and prognosis
- Demonstrate understanding of the types of epidemiological research and major study designs
- Critically read the epidemiological literature and discuss reasons for the research and problems with its interpretation
- Estimate risk using standard epidemiologic methodologies
- Demonstrate understanding of causal inference

- Complete a team reflection on a current epidemiologic topic
  - Write a clear report that describes the entire project and its findings
  - Work well together with other members of your team
  - Meet deadlines without constant need for reminders
- Apply Ignatian values to evaluate the ethical implications of epidemiologic studies and population health policies

**UNIVERSITY LEVEL GRADUATE POLICIES:**

<http://catalog.xavier.edu/content.php?catoid=17&navoid=833>

**ACCOMMODATIONS**

**Inclusivity Statement:**

Xavier University and the Department of Health Services Administration and its faculty and staff are committed to providing an atmosphere for learning that respects diversity, in which all students feel comfortable and safe to learn, and in which all students feel like valued members of the HSA community. We are committed to addressing issues that put such an atmosphere in jeopardy, and to being active allies to diverse students. In order to build a positive classroom or online community, we ask that students:

- Appreciate the opportunity that we have to learn from each other in this community;
- Share their unique experiences, values and beliefs;
- Be open to the views of others;
- Honor the uniqueness of their peers;
- Communicate in a respectful manner;
- Utilize this opportunity together to discuss ways in which we can create an inclusive environment in this course and across the Xavier community.

It is my goal that this class be an accessible and welcoming experience for all students. If you have any kind of need or disability for which you require accommodation in order to give your best academic performance in this course, please notify the instructor and contact the appropriate Xavier services:

Religious holy days: I have tried to create the most accommodating and generalizable schedule for all. If your needs are not met, simply email me at least 48 hours before the due date to request an extension for any assignments that conflict with your needs.

The Office of Academic Support offers tutoring, Supplemental Instruction (SI), and study groups. For information about these services, contact Stephanie Daniels at 745-3214 or [danielss3@xavier.edu](mailto:danielss3@xavier.edu). The OAS is located on the fifth floor of the Conaton Learning Commons, Suite 514.

**Students with Disabilities**

Any student who feels he/she/they may need an accommodation based on the impact of a documented disability should notify the course instructor and contact Cassandra Jones in the Office of Disability Services at 745-3280 or e-mail [jonesc20@xavier.edu](mailto:jonesc20@xavier.edu) to coordinate reasonable accommodations. If you are a student with a disability who may have trouble participating or effectively demonstrating learning in this course, contact me to arrange an appointment to share your Accommodation Letters from Disability Services and to discuss your needs. Disability related information is confidential.

**HOT TOPIC! Academic Honesty: Read this section in the XU Catalogue, linked above.**

**Please ask if you have questions regarding intellectual property rights. When in doubt, provide a reference or LINK to quotations and summarized concepts or research. Direct quotations should be used sparingly.**

**This course, and the instructor, observe major holidays recognized by the university.**

### **HSA DEPARTMENT LEVEL Mission Statement (2011): Please see XU HSA Student Handbook**

In keeping with its Catholic, Jesuit tradition, the mission of the Department of Health Services Administration at Xavier University is to educate knowledgeable, highly skilled, values-oriented future leaders who will contribute to the health of society by continuously improving the management of health related organizations.

### **HECOR PROGRAM LEVEL POLICIES: Please see HECOR Program Level Outcomes in the HSA Student Handbook**

#### **Relation to Xavier's Mission:**

The M.S. in Health Economics and Clinical Outcomes Research furthers the mission of Xavier University by educating each student intellectually, morally and spiritually. This program provides a challenging and comprehensive learning opportunity for individuals who desire to expand upon their undergraduate degree and develop advanced skills in data analysis, economic and clinical quality improvement to support organizational decision making. Experiences include ethical issues inherent in the growing area of health outcomes research. Interdisciplinary classroom experiences include work with real clinical and economic data. Didactic work combined with service learning, a mentored practicum and optional internship helps students cultivate lives of reflection, compassion and informed action.

#### **Preparation & Participation examples:**

- Punctuality
- Independence
- Sharing information and perspectives graphically, in writing, peer-review or discussion each week
- Showing respect to your classmates, guests, faculty, staff, community partners, the public
- **Planned reflective and interactive time of ~3 hours per week, per credit hour; individual students may require more or less time to master content**
- Use of XU resources in and outside of class
- "A" students do more than the expected minimum. For example, this may include utilization of external sources of credible information to reflect, discern and synthesize information. Independent use of optional enrichment activities, readings, videos, and office/open lab hours is highly encouraged and will be noted.

#### **Graduation Requirements:**

Graduation requirements include completion of the 40 credit hours with a GPA of 3.0, or "B," or higher, no outstanding academic probation requirements, and satisfactory completion of a capstone project. A grade of "B-" or better is required in all courses. Courses in which a "C" is received must be repeated at the student's expense and may extend the length of the program.

#### **Grading Scale (Note: 0.55% will be rounded up):**

A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	60-66
F	≤59

## **INSTRUCTOR LEVEL and COURSE SPECIFIC POLICIES:**

**The syllabus and schedule are subject to change. See the Start Page, Start Module and Library Pages on Canvas for additional helpful information and resources for online students.**

### **Canvas:**

Links to supplemental articles/chapters outside of the class, assignment descriptions and the syllabus will be available via Canvas. Reports must pass the Turnitin feature of Canvas.

### **Assignments:**

**Microsoft Office, Word, Excel, Powerpoint, will be used for all uploads to Canvas.**

Statistical Platforms: Excel, SAS® (Cary, NC) or R may be used to analyze data. SAS® is available without charge to Xavier students, faculty and staff.

**Canvas is the current Learning Management System used and hosted at Xavier. Xavier University is in the Eastern Standard Time zone. We observe Daylight Saving Time from Spring to Fall.**

### **Headers and filenames:**

Write or type your **first name, last name** in the upper right header of any written work, exams.

Name files LastName\_HESA"course number"\_"assignment"\_date

**Reference style and format:** The preferred style format for this course is Vancouver, or ICMJE/ANSI. Vancouver-like styles are used for most scientific and medical journal submissions. Vancouver is the "grandfather" of AMA, JAMA, ICMJE, ANSI and NLM: <https://www.ncbi.nlm.nih.gov/books/NBK7256/> It is the least complex and quickest to type. It uses superscripts for in-text references. The ICMJE website also includes helpful advice on reporting guidelines for different study designs: <http://www.icmje.org/recommendations/> The National Information Standards Organization issued a new standard for Bibliographic References in 2005 (ANSI/NISO Z39.29)

You are strongly advised to learn and use a bibliographic management system, such as Zotero (see Pages in your Canvas course), EndNote, RefWorks, etc.

Attention to style, format, spelling, grammar and writing style are important professional development skills that accompany content knowledge acquisition during your graduate studies. In addition, attention to detail requires less work on the part of your reader or reviewer to discern your important points of content, and conclusions.

**Required text:** *Gordis, L. (2014). Epidemiology (5<sup>th</sup> ed). Philadelphia: Elsevier*

**Suggested References are included in the Modules Pages.**

**We gratefully acknowledge the contributions of our internal partners:**

Program Director: Dr. Pete Mallow PhD [mallowp@xavier.edu](mailto:mallowp@xavier.edu)

Program Administrator: Ms. Kristin Dale, Schott 411 [dalek2@xavier.edu](mailto:dalek2@xavier.edu)

Health Services Administration Librarian: **Ms. Patty Greco, is available to help you.** [Greco@xavier.edu](mailto:Greco@xavier.edu)

Technology Services Support: <http://www.xavier.edu/ts/helpdesk/>

## Course Outline & Schedule

Activities and assignments for each module are listed in the tables below. Each module will open on Sunday, or sooner. Readings and chapter review questions provide the foundation needed to complete assignments and quizzes; complete these activities first.

This is a relatively new online course, and your feedback is welcomed. I deeply appreciate when students email or text me regarding typos, lack of clarity or a link that did not activate. I endeavor to make this course will be one of best you have taken.

Module Pages have additional study guidance, objectives, terminology, descriptions and LINKS to each assignment and discussion.

### Module: Start (8/19-24)

Due date	Assignment (or activity): title of assignment	Points
	Ungraded Icebreaker: Getting to Know Your Expertise	
	Review Start Page	
8/22	Discussion: Hot Topics in Epidemiology (initial post)	25
8/24	Discussion: Hot Topics in Epidemiology (response post)	

### Module 1: The Epidemiologic Approach & Public Health (8/25-9/7)

Due date	Assignment (or activity): title of assignment	Points
	Reading: Chapters 1, 2	
	Review questions: Chapter 2	
9/7	Quiz 1: Chapters 1, 2	50
9/5	Discussion: 2017-2018 Influenza (initial post)	25
9/7	Discussion: 2017-2018 Influenza (response posts)	

### Module 2: Population Health Indicators (9/8-21)

Due date	Assignment (or activity): title of assignment	Points
	Reading: Chapters 3, 4, 19	
	Review questions: Chapters 3, 4	
9/21	Quiz 2: Chapters 3, 4, 19	50
9/19	Discussion: Population Health Indicators in the U.S. (initial post)	25
9/21	Discussion: Population Health Indicators in the U.S. (response posts)	

### Module 3: Screening and Prognosis (9/22-10/5)

Due date	Assignment (or activity): title of assignment	Points
	Reading: Chapters 5, 6, 18	

	Review questions: Chapters 5, 6, 18	
10/5	Quiz 3: Chapters 5, 6, 18	50
10/3	Individual Brief Project Proposal	50
10/5	Individual Brief Project Proposal Peer-review	50

#### Module 4: Experimental Study Designs (10/6-19)

Due date	Assignment (or activity): title of assignment	Points
	Reading: Chapters 7, 8	
	Review questions: Chapters 7, 8	
10/19	Quiz 4: Chapters 7, 8	50
10/17	Discussion: Critical appraisal of a Clinical Trial (initial post)	25
10/19	Discussion: Critical appraisal of a Clinical Trial (response post)	
10/19	Midterm reflection on course	25

#### Module 5: Observational Study Designs (10/20-11/2)

Due date	Assignment (or activity): title of assignment	Points
	Reading: Chapters 9, 10, 13	
	Review questions: Chapters 9, 10	
11/2	Quiz 5: Chapters 9, 10, 13	50
10/31	Team Project Proposal	50
11/2	Team Project Proposal Peer-review	50

#### Module 6: Estimating Risk (11/3-16)

Due date	Assignment (or activity): title of assignment	Points
	Reading: Chapters 11, 12	
	Review questions: Chapters 11, 12	
11/16	Quiz 6: Chapters 11, 12	50
11/14	Discussion: What is the effect of misclassification on Odds Ratios? (initial post)	25
11/16	Discussion: What is the effect of misclassification on Odds Ratios? (response post)	

#### Module 7: Causal Inference (11/17-30)

Due date	Assignment (or activity): title of assignment	Points
	Thanksgiving Holiday Nov 20-24	
	Reading: Chapters 14, 15	
	Review questions: Chapters 14, 15	

11/30	Quiz 7: Chapters 14, 15	50
11/28	Team Project Draft	150
11/30	Team Project Draft Peer-review	50

**Module 8: Jesuit Values & Ethics in Population Health (12/1-7)**

Due date	Assignment (or activity): title of assignment	Points
	Watch: What are values, ethics and law? 1-1 The Big Four 1-2 (or review)	
	Watch: The Ignatian Values & Gifts (or review)	
	Reading: Chapters 17, 20	
	Review questions: Chapter 17	
12/5	Discussion: Ethics, Solidarity & Kinship in Population Health (initial post)	25
12/7	Discussion: Ethics, Solidarity & Kinship in Population Health (response posts)	
12/5	Revised Final Project	50
12/5	Post Final Project to Discussion Board	25
	Read 2 other teams' final projects	
12/7	Final Discussion and evaluation of course	

**Final Exam Week: (12/8-13) There is not a final exam in HECO 567 Applied Epidemiology. Instead, you will be asked to complete a constructive final course evaluation.**

**Note:** The schedule is subject to change in the event of extenuating circumstances. You are expected to check announcements regularly and adhere to the established course deadlines.