



Department of Public Health Sciences
MPH Program Syllabus

Course name:	Epidemiology for Public Health Professionals
Course no.:	PUBH 5302
Course CRN:	22948
Semester/year	Spring Semester 2014
Graduate credit hours:	3
Class location:	HSN 216
Class meeting time:	Tuesdays 5p-750p
Class instructor:	Dr. Oralia Loza, Ph.D.
Office location:	HSN 405
Phone:	915.747.7232
Email:	oloza@utep.edu
Office hours:	Tuesdays 11a-1p and Thursdays 11a-1p
Preferred contact method:	email
Course description:	Core graduate course in the public health curriculum considers the meaning, scope, and applications of epidemiology to the practice of public health and the uses of statistics for the scientific appraisal and dissemination of public health data.
Course pre-requisites:	One prior UG or GR statistics course with grade of B or better.
Required textbooks:	Robert H. Friis and Thomas A. Sellers. <u>Epidemiology for Public Health Practice</u> , Fourth Edition. Jones and Bartlett Publishers, 2009
Required software:	<ul style="list-style-type: none">• Microsoft Office• EndNote or RefWorks Access is available for free to UTEP students under MY DESKTOP in MY.UTEP
Supplemental reading:	The required textbook, additional readings, auto-tutorials, case studies, exercises, videos, and other materials have been selected to provide broad exposure to the exciting field of epidemiology. In addition, students are strongly encouraged to read the recommended materials as well as explore other scientific and professional sources that will further broaden your understanding of the science of epidemiology and the major concepts of the discipline.
Additional Resources:	<ul style="list-style-type: none">• Health Science Librarians<ul style="list-style-type: none">◦ http://libguides.utep.edu/public_health◦ Harvey Castellano hcastell@utep.edu• MyDesktop<ul style="list-style-type: none">◦ Workshops: http://admin.utep.edu/Default.aspx?tabid=65331◦ Report issues directly to: https://servicedesk.utep.edu◦ Mr. Frank Poblano fpoblano@utep.edu• APA 6th Edition<ul style="list-style-type: none">◦ Publication Manual of the American Psychological Association, Sixth Edition, By American Psychological Association, ISBN: 978-1-4338-0561-5, http://www.apa.org/pubs/books/4200066.aspx

	<p>Examples of peer-reviewed epidemiology, public health, and other peer-reviewed health journals: <i>American Journal of Epidemiology, Annals of Epidemiology, Epidemiology, Epidemiologic Reviews, European Journal of Epidemiology, International Journal of Epidemiology, Journal of Clinical Epidemiology, Journal of Epidemiology and Community Health, American Journal of Public Health, Nutrition Reviews, American Journal of Clinical Nutrition, Salud Pública de México.</i></p> <p>NOTE: Wikipedia or other similar websites do not serve as references</p> <p>Research Resources: search for the journals at UTEP library and online resources</p> <ol style="list-style-type: none"> 1. Health science librarian team at UTEP Library http://libguides.utep.edu/public_health 2. PubMed for biomedical journal articles http://www.ncbi.nlm.nih.gov/sites/entrez 3. SciELO Public Health: health science articles in Ibero-American countries http://www.scielosp.org/ 4. Google Scholar: scholarly literature and pdfs http://scholar.google.com/ 5. Border Virtual Health Library from PAHO http://www.infofrontera.org/php/index.php?lang=en 6. Cumulative Index to Nursing and Allied Health (CINAHL EBSCO) http://www.ebscohost.com/academic/the-cinahl-database 7. OTHERS: CDC, NIH, PAHO, WHO
<p>Course format:</p>	<p>Course combines in-class lectures and other activities with online auto-tutorials, readings, presentations, writings, and homework exercises. Although students may sometimes work in groups while in the class, please note that all work done outside the class should be completed on an individual basis including the computerized auto-tutorial modules, homework exercises, and research protocols.</p> <p>Take-home assignments and other selected materials will be available in class or on Blackboard.</p>
<p>Major learning objectives:</p>	<ol style="list-style-type: none"> 1. Demonstrate knowledge of the evaluation of screening programs in the detection of disease; terminology of screening including sensitivity and specificity. 2. Identify common observational and experimental study designs used in epidemiologic research and their strengths and limitation. 3. Discuss epidemiologic aspects of infectious disease (variations in severity of illness, components of the infectious disease process, mechanism of disease transmission, and common source versus propagated). 4. Discuss epidemiologic aspects of chronic disease (multi-factorial nature of etiology, long latency period, indefinite onset, and differential effect of factors on incidence and course of disease) 5. Summarize epidemiological studies and reports. 6. Extract and organize data from online data sources for epidemiological data. 7. Define and differentiate between rates, prevalence, and incidence.

- 8. Calculate, summarize, and interpret prevalence, incidence, relative risks, odds ratios, and other rates from appropriate data.
- 9. Identify how their research question relates to the objectives of Health People 2020.
- 10. Identify the appropriate study design for health outcomes (e.g., infectious diseases, chronic diseases)
- 11. Develop and present a research proposal outline and draft of methods
- 12. Research successful interventions have been adapted or developed for the U.S.-Mexico border or Hispanic population.

Assessment strategies: Students will select a research question that addresses a cutting edge issue in epidemiology. Students will conduct a literature search to gain an understanding of the current research on the health topic selected and then design an abbreviated research plan and proposal outline. It is of particular importance that students correctly utilize their learned research methods when writing the protocol. This type of exercise is similar in its form to the development of a thesis research proposal. In addition, students will be provided with scenarios, for which they need to identify appropriate methods (e.g., study design), problem solving, and rates calculation and interpretation.

1. **Research Proposal Outline:** based on the research topic, students will develop an outline of the background and significance.
2. **Literature Review:** 15 full-length original and review articles published in peer-reviewed epidemiologic and other scientific journals in the topic area will be identified, summarized, and organized. In addition to these 15 articles, students may also use data from reputable sources to supplement the research paper such as from the CDC, NIH (MEDLINE & PubMed), PAHO, WHO.
3. **Written & Oral Presentation of epidemiological findings:** the results from the literature review and outline will be presented in a written format and presented orally via PowerPoint presentation. This will include proposed methods to execute a study to address their research question.
4. **Problems from the Textbook:** these involve definitions, word problems, and calculations.
5. **Exercises:** Using online sources and resources (e.g., webinars, data sources, etc) from key public health agencies and organizations on social, economic, or political public health (global, national, or local) issues.
6. **Quizzes and Exams on general course material:** Students will also be tested on the course material in quiz and exam format.

Program Competencies (core competency area must be identified & number according to that listed by the MPH program)	Learning objectives	Assessment strategies
This course meets the following MPH degree & graduate certificate in public health competencies		
<p>3. EPIDEMIOLOGY CORE COMPETENCIES</p> <ol style="list-style-type: none"> 1. Identify key sources of data for epidemiologic purposes. 2. Identify the principles and limitations of public health screening programs. 3. Describe a public health problem in terms of magnitude, person, time and place. 4. Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues. 5. Comprehend basic ethical and legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data. 6. Apply the basic terminology and definitions of epidemiology. 7. Calculate basic epidemiology measures. 8. Communicate epidemiologic information to lay and professional audiences. 9. Draw appropriate inferences from epidemiologic data. 10. Evaluate the strengths and limitations of epidemiologic reports. <p>1. BIostatistics CORE COMPETENCIES</p> <ol style="list-style-type: none"> 5. Apply descriptive techniques commonly used to summarize public health data. 9. Interpret results of statistical analyses found in public health studies. <p>HISPANIC/BORDER HEALTH CONCENTRATION-SPECIFIC COMPETENCIES</p> <ol style="list-style-type: none"> 3. Identify the major chronic, infectious, and other public health challenges that face Hispanic and border communities. 4. Apply the basic principles of prevention and control for chronic, infectious, and other conditions especially those that differentially impact Hispanic and border communities. 	<p>5, 6</p> <p>1</p> <p>4, 10</p> <p>3, 4, 9, 12</p> <p>2, 9, 10</p> <p>7</p> <p>8</p> <p>9, 11</p> <p>3, 4, 5, 8</p> <p>2, 5</p> <p>5, 6, 8</p> <p>5, 6</p> <p>3, 4, 11</p> <p>3, 4, 11, 12</p>	<p>1, 2, 3</p> <p>2, 4</p> <p>2, 4, 6</p> <p>2, 3</p> <p>2, 3, 5</p> <p>1, 4, 6</p> <p>4, 5, 6</p> <p>3</p> <p>5</p> <p>2, 3, 5</p> <p>4, 5</p> <p>2, 3, 5</p> <p>2, 3, 5</p> <p>3</p>
Grading scale & criteria	<p>Student performance will be evaluated on:</p> <ul style="list-style-type: none"> • Assignments (35%) • Exams (30%) • Proposal Project (30%) • Participation (5%) <p>Grading Scheme: A (> 90%), B (80-89%), C (70-79%), D (60-69%), and F (< 60%)</p>	
Incomplete policy:	Incomplete assignments will be graded. Partial credit will be provided	
Course/Instructor & Institutional Policies		
Attendance:	It is UTEP policy that all students attend all scheduled classes. Attendance will be taken at each class. When a student registers for a course, it is assumed	

	<p>that she/he has made arrangements to avoid such conflicts. Students are responsible for any information or activities presented in class discussions, lectures, assignments, and/or readings. If you are unable to attend class, it is your responsibility to inform the instructor before the respective class session. Students may be administratively withdrawn for excessive unexcused absences (2 or more classes). Compliance to due dates, in class presentations, homework, exams and other activities is mandatory. All emergency-related absences must be verified.</p> <p>Chronic tardiness not only reflects lack of commitment and professional behavior but also is disruptive to your classmates and the instructor. You are expected to be in class and seated by 5:00 PM.</p>
Reading assignments:	All assigned readings need to be completed prior to coming to the next scheduled class session. Example: the reading assignments for week 2 need to be completed prior to coming to the week 2 class session.
Writing standards	Effective public health leaders and practitioners are also effective written as well as oral communicators. Written communication is a critical element of the communication process. Our MPH graduate program both recognizes and expects good writing to be the norm for course work. Please feel free to seek out assistance from the UTEP Writing Center. It is free and they are very helpful.
Policy for late assignments	Late work will receive point reduction: 50% within two days of deadline. Submission will receive no credit, if submitted after two days.
Permission to record lectures & discussions	Not permitted without express permission of the instructor
Cellphone/electronic tablet/ use policies:	Please note that all cellular telephones, pagers, headphones, iPods, iPads, mp3 players, earpieces, laptops, and other forms of communication and entertainment technology equipment must be powered off and put away during the class period. If a situation should arise which necessitates a student to be contacted by a physician or family member, the instructor shall be notified and cell phone can be set to "vibrate." Please be advised that students who use unauthorized technology during class time will be dismissed from that week's class session.
Field trip policies:	N/A
Class participation:	<i>Active student participation in this course is very important. Students must be prepared to come to class to discuss, answer questions, and participate in all class activities.</i>
Special accommodations:	If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 915.747.5148, cass@utep.edu , or visit their office located in UTEP Union East, Room 106. For additional information, visit http://sa.utep.edu/cass/ . CASS' Staff are the only individuals who can validate and if need be, authorize accommodations for students with disabilities.
Student conduct:	Students are expected to be above reproach in all scholastic activities. Students who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the university. "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, and the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination

for another student, any act designed to give unfair advantage to a student or the attempt to commit such acts." Regent's Rules and Regulations, Part One, Chapter VI, Section 3.2, Subdivision 3.22. Since scholastic dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. From the UTEP Dean of Student Affairs (<http://studentaffairs.utep.edu/Default.aspx?tabid=4386>) "It is an official policy of university that all suspected cases or acts of alleged scholastic dishonesty must be referred to the Dean of Students for investigation and appropriate disposition. Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, and the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts".

Examples of "cheating" include:

- Copying from the homework, in-class work or exam paper of another student, engaging in written, oral, or any other means of communication with another student during an exam or homework assignment, or giving aid to or seeking aid from another student during a test;
- Possession and/or use during an exam or home test of materials which are not authorized by the person giving the test, such as class notes, books, or specifically designed "crib notes";
- Using, obtaining, or attempting to obtain by any means the whole or any part of non-administered test, test key, homework solution, or computer program; using a test that has been administered in prior classes or semesters but which will be used again either in whole or in part without permission of the instructor; or accessing a test bank without instructor permission;
- Collaborating with or seeking aid from another student for an assignment without authority;
- Substituting for another person, or permitting another person to substitute for one's self, to take a test;
- Falsifying research data, laboratory reports, and/or other records or academic work offered for credit.

"Plagiarism" means the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own academic work offered for credit, or using work in a paper or assignment for which the student had received credit in another course without direct permission of all involved instructors. NOTE: This includes cutting-and-pasting and photocopying from on-line and other material.

"Collusion" means the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on scholastic dishonesty.

TENTATIVE COURSE SCHEDULE *

Dates	Topics (READ CHAPTER BEFORE CLASS)	Assignments
Tuesdays		Proposal Project Deadlines
WEEK 1 Jan 21	History & Scope of Epidemiology (Chapter 1) Epidemiology as a Profession (Chapter 16)	
WEEK 2 Jan 28	Practical Applications of Epidemiology (Chapter 2)	Exercises: CDC WONDER
WEEK 3 Feb 4	Measures of Morbidity and Mortality Used in Epidemiology (Chapter 3)	Exercises: NIH Podcasts
WEEK 4 Feb 11	Measures of Morbidity and Mortality Used in Epidemiology (Chapter 3) Special Topics: Paso del Norte Healthy Communities Network	Proposal: Research Topic
WEEK 5 Feb 18	Descriptive Epidemiology: Person, Place, Time (Chapter 4) Special Topics: Substance Abuse Data	Exercises: Ch 01-04
WEEK 6 Feb 25	Special Topics: Rethinking the Hispanic Paradox Guest Speaker: Leilani Attilio, RN MPH	Proposal: Topic and References
WEEK 7 Mar 4	Sources of Epidemiological Data (Chapter 5) Software: EndNote Guest Speaker: Elizabeth Torres, Instruction Librarian	Exercises: Rethinking the Hispanic Paradox Proposal: Summary of Article
WEEK 8 Mar 11	Spring Break	
WEEK 9 Mar 18	MIDTERM: Ch 01-05	
WEEK 10 Mar 25	Ecologic, Cross-Sectional, Case-Control, Cohort Study Designs (Chapter 6-7)	Proposal: Outline
WEEK 11 April 1	Experimental Study Designs (Chapter 8) Measures of Effect (Chapter 9)	Exercises: Ch 05-08
WEEK 12 April 8	Data Interpretation Issues (Chapter 10) Screening for Disease in the Community (Chapter 11)	Proposal: Background and Significance
WEEK 13 April 15	Infectious Disease Outbreak (Chapter 12)	Proposal: Hypotheses and Methods
WEEK 14 April 22	Psychological, Behavioral, and Social Epidemiology (Chapter 15)	Exercises: Ch 11-12, 15
WEEK 15 April 29	Proposal: Oral Presentations	Proposal: Oral PP Presentation (BB)
WEEK 16 May 6	Proposal: Oral Presentations	Proposal: Written Report (BB)
WEEK 17 May 13	FINAL EXAM: Tuesday May 13, 4p-645p	

* Syllabus is subject to change. Assignments and due dates provided on BlackBoard.

More deadlines: <http://academics.utep.edu/Default.aspx?tabid=68816>