

Course Syllabus

TOPIC	CONTENT
Course Name/ CRN	Epidemiology for Public Health Professionals (PUBH 5302) (CRN: 22114)
Semester/year	Spring 2019
Graduate credit hours	3
Class location, day, time	Health Science/School of Nursing (HSN) Building Room 215, Tuesdays 5p-750p
Instructor, Office Hours	Dr. Oralia Loza oloza@utep.edu 915.747.7232 Tuesdays 1130a - 1p and Thursdays 1130a - 1p
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	Admission to the MPH or Graduate Certificate in Public Health Program. One prior UG or GR statistics course with grade of B or better.
Required textbooks	Epidemiology for Public Health Practice, Fourth Edition (2009) Authors: Robert H. Friis and Thomas A. Sellers Publisher: Jones and Bartlett Publishers (ISBN-10: 0763751618) (ISBN-13: 9780763751616) http://publichealth.jbpub.com/friis/4e/http://www.jbpub.com/essentialpublichealth/sullivan/2e
Required software	<ul style="list-style-type: none"> • Microsoft Office (Word, Excel, and PowerPoint) • EndNote or RefWorks (Access is available for free to UTEP students under MY.APPS.UTEP.EDU)
Supplemental Reading	APA 6th Edition: 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

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<p>Additional Resources</p>	<p>Health Science Librarian</p> <ul style="list-style-type: none"> • Harvey Castellano hcastell@utep.edu • http://libguides.utep.edu/prf.php?account_id=81079 • http://libguides.utep.edu/public_health <p>Technology Support Center (TSC)</p> <ul style="list-style-type: none"> • Workshops: tsc.utep.edu/workshops or https://admin.utep.edu/Default.aspx?tabid=74112 • Report issues to: https://servicedesk.utep.edu or Frank Poblano fpoblano@utep.edu <p>Examples of peer-reviewed epidemiology, public health, and other peer-reviewed health journals: <i>American Journal of Epidemiology</i>, <i>Annals of Epidemiology</i>, <i>Epidemiology</i>, <i>Epidemiologic Reviews</i>, <i>European Journal of Epidemiology</i>, <i>International Journal of Epidemiology</i>, <i>Journal of Clinical Epidemiology</i>, <i>Journal of Epidemiology and Community Health</i>, <i>American Journal of Public Health</i>, <i>Nutrition Reviews</i>, <i>American Journal of Clinical Nutrition</i>, <i>Salud Pública de México</i>.</p> <p>NOTE: Wikipedia or other similar websites do not serve as a valid reference</p> <p>Research Resources:</p> <ol style="list-style-type: none"> 1. UTEP Health Science 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. U.S.-Mexico Border Virtual Health Library from PAHO http://infofrontera.homolog.bvsalud.org/php/index.php?lang=en 6. Cumulative Index to Nursing and Allied Health (CINAHL EBSCO) http://www.ebscohost.com/academic/the-cinahl-database <p>Agencies:</p> <ol style="list-style-type: none"> 1. United States-México Border Health Commission: https://www.hhs.gov/about/agencies/oga/about-oga/what-we-do/international-relations-division/americas/border-health-commission/index.html 2. Centers for Disease Control and Prevention (CDC): https://www.cdc.gov/ 3. Pan American Health Organization (PAHO): https://www.paho.org/hq/index.php?lang=en 4. World Health Organization (WHO): http://www.who.int/health-topics
<p>Course format</p>	<p>Course combines in-class lectures 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 homework exercises.</p> <p>Lecture notes, course material, assignments, graded assignments (with feedback), grades, and other selected materials will be available in class or on BlackBoard (BB).</p>

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<p>THE COUNCIL ON EDUCATION FOR PUBLIC HEALTH FOUNDATIONAL AND CONCENTRATION COMPETENCIES (CEPH)</p>	<p>The UTEP MPH program is nationally accredited by the Council on Education for Public Health (CEPH). The CEPH has defined <u>22 foundational competencies</u> required for attainment of the MPH degree; in addition, our MPH program has defined <u>5 concentration competencies</u> that reflect the unique training that you will receive in our program in <i>Hispanic and Border Health</i>. During orientation, you were provided with the complete list of the foundational and concentration competencies. Each of your courses will address different competencies. The competencies that will be addressed in this course are listed below and during the first-class session, your professor will review these with you. In different ways throughout the semester, you will be evaluated on your <u>knowledge</u> regarding the specific competencies addressed in this course, and you will be assessed on your <u>ability to apply</u> each of the competencies addressed in this course.</p>
<p>Course Competencies</p>	<p><u>Evidence-based Approaches to Public Health</u></p> <ol style="list-style-type: none"> 1. Apply epidemiological methods to the breadth of settings and situations in public health practice 2. Select quantitative and qualitative data collection methods appropriate for a given public health context 3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate 4. Interpret results of data analysis for public health research, policy or practice <p><u>Communication</u></p> <ol style="list-style-type: none"> 19. Communicate audience-appropriate public health content, both in writing and through oral presentation <p><u>MPH Hispanic and Border Health Concentration Competencies</u></p> <ol style="list-style-type: none"> 3. Identify and access public health data on communicable and non-communicable disease in Hispanic and border communities (including vital stats and disease registries; health and nutrition surveillance data; census data; national surveys). 4. Identify, access and summarize the content of one or more current initiatives relevant to border health (e.g., Healthy Border 2020; US-Mexico Border Philanthropy Partnership; Paso Del Norte Regional Strategic Health Framework).

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<p>Assessment strategies</p>	<p>Your knowledge of course content related to each competency addressed in this course will be tested in the following ways:</p> <p><u>Textbook Problems</u>: these involve definitions, word problems, and calculations. 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.</p> <p><u>Exercises</u>: 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.</p> <p><u>Quizzes and Exams</u>: Students will also be tested on the course material in quiz and exam format, reflecting the material presented in the lectures, textbook problems, and exercises.</p> <p>Your ability to apply course content related to each competency addressed in this course will be tested in the following ways:</p> <p>Research Proposal: Students will select a research topic that addresses a pressing public health issue, particularly affecting Hispanic population and/or the U.S.-Mexico border region. Students will conduct a literature search to gain an understanding of the current research on the topic and population then design an abbreviated research proposal. It is of particular importance that students accurately identify the best research methods (e.g., study design, measures, population) based on where in their topic lies in the research (e.g., exploratory, longitudinal, etc.). This exercise is similar in its form to the development of a thesis research proposal and will be completed in separate assignments then merged for one culminating Oral Presentation as follows:</p> <ol style="list-style-type: none"> a. Research Topic b. Literature Review c. Summary of Article d. Measures Presentation e. Outline f. Background & Significance Articles g. Aims and Methods h. Oral Presentation

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Learning Objectives	<p>Upon completion of this course the student will learn to identify the appropriate study design and measure of association to address a research question. These objectives contribute to student's ability to critically review the public health and epidemiologic literature and develop methods section of a research proposal. Students will learn to:</p> <ol style="list-style-type: none"> 1. Identify common observational and experimental study designs used in epidemiologic research and their strengths and limitations. 2. Discuss epidemiologic aspects of infectious disease (e.g., variations in severity of illness, components of the infectious disease process, mechanism of disease transmission, and common source versus propagated). 3. Discuss epidemiologic aspects of chronic disease (e.g., multi-factorial nature of etiology, long latency period, indefinite onset, and differential effect of factors on incidence and course of disease). 4. Demonstrate knowledge and distinguish prevention efforts (e.g., primary, secondary and tertiary) and screening programs (e.g., detection of disease, sensitivity, and specificity). 5. Extract and organize data from online data sources for epidemiological data. 6. Define, calculate, summarize, and interpret prevalence, incidence, relative risk, odds ratio, and other rates and measures of association from appropriate data. 7. Identify the appropriate study design, sources for sample population, and measures for health outcomes and factors of interest (e.g., infectious versus chronic diseases; rare versus common health phenomenon; availability of population, etc.). 8. Summarize published epidemiological studies and reports. 9. Develop and orally present a research proposal topic including an outline for background and significance, results of a literature review, and proposed methods section as well as identify how their research topic relates to the objectives of public health frameworks (e.g., Health People 2020, Healthy Border, Paso Del Norte Regional Strategic Health Framework). 10. Identify research studies and interventions that have been adapted or developed for the U.S.-Mexico border or Hispanic population.
Grading scale	<p>A (> 90%-exceptional graduate-level performance) B (80-89%-average graduate-level performance) C (70-79%-below average graduate-level performance) D (60-69%-unacceptable graduate-level performance) F (< 60%-very unacceptable graduate-level performance)</p>
Grading Components	<p>Student performance will be evaluated on:</p> <ul style="list-style-type: none"> Assignments (Textbook Problems and Exercises) (35%) Quizzes and Exams (30%) Proposal Project (30%) Participation (5%)
Incomplete Policy	<p>The grade of "I" (incomplete) is considered only in very rare circumstances involving fully documented emergencies, must be requested at least <u>four weeks</u> prior to the last class of the fall term, and is allowed at the discretion of the instructor.</p> <p>Incomplete assignments will be graded for partial credit.</p>

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Attendance	It is <u>UTEP policy</u> that <u>all students attend all scheduled classes</u> . Attendance will be taken at each class. When a student registers for a course, it is assumed that she/he has made arrangements to avoid conflicts that would result in chronic tardiness or absence from class. Students are personally responsible for all information or activities presented in class discussions, lectures, assignments, and/or readings. If you are unable to attend class, <i>it is your responsibility to inform the instructor before the class session. <u>Students will be administratively withdrawn for excessive unexcused absences of 2 or more classes.</u></i> Compliance is mandatory with regard to assignment due dates, student-led discussions and class presentations, reading assignments, exams and all other activities. All emergency-related absences must be documented and verified by presentation of documents to the instructor. <i>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 seated and ready to begin class at 5:00 PM.</i>
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 must have highly developed written and oral communication skills. Excellent writing skills are a critical element of communication and information dissemination. Our MPH graduate program expects good writing skills as the norm for course work. Please speak with the instructor for resources on-campus that can help you develop necessary writing skills (e.g., UTEP Writing Center).
Late Assignment Policy	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	Recording of lectures and discussion is permitted only with the approval of the instructor.
Classroom electronics	<u>All cell phones, headphones, iPods, iPads, mp3 players, earpieces, and other forms of communication and entertainment technology must be powered off and put away during the class period.</u> 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.
Class participation	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.
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 authorize accommodations for students with disabilities.
UTEP MPH Program Handbook	Available at: http://chs.utep.edu/publichealthsciences/pdf/MPH%20STUDENT%20%20HANDBOOK%202013-2014.pdf

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<p>Student Conduct</p>	<p>"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." <u>University of Texas Regent's Rules and Regulations</u>, Part One, Chapter VI, Section 3.2, Subdivision 3.22.</p> <p>FOR THE PUBLIC HEALTH PROFESSIONAL, ETHICAL CONDUCT IS A CENTRAL TENET AND GUIDING PRINCIPLE OF ALL ACTIVITIES, DECISIONS AND CRITICAL ANALYSES. STUDENTS IN THE MASTER OF PUBLIC HEALTH PROGRAM AT UTEP ARE EXPECTED TO BE <u>ABOVE REPROACH</u> IN ALL SCHOLASTIC ACTIVITIES.</p> <p>Students who engage in scholastic dishonesty will be subject to disciplinary penalties, including failure in the course and dismissal from the university. "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, 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." http://studentaffairs.utep.edu/Default.aspx?tabid=4386)</p> <p>"<u>CHEATING</u>" means copying from the work another student; possession and/or use during an exam or home test of materials which are not authorized by the person giving the test; 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; falsifying research data, laboratory reports, and/or other records or academic work offered for credit.</p> <p>"<u>PLAGIARISM</u>" 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.</p> <p>"<u>COLLUSION</u>" 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.</p>

WEEKLY PLAN

Dates	Competency Topics	Topics: Textbook Chapter (READ BEFORE CLASS), SPSS Modules, and Bivariate Analysis Project (BAP)	Assignments and Deadlines
WEEK 1 Jan 22	Epidemiological methods across settings	Chapter 16. Epidemiology as a Profession Chapter 1. History & Scope of Epidemiology	
WEEK 2 Jan 29		Chapter 1. History & Scope of Epidemiology Chapter 2. Practical Applications of Epidemiology	
WEEK 3 Feb 5	Identifying and accessing public health data	Chapter 2. Practical Applications of Epidemiology: Prevention of Disease: Types and Examples Proposal: Outline and Project Overview	Exercises: CDC WONDER
WEEK 4 Feb 12	Identifying and accessing public health data	Chapter 3. Measures of Morbidity and Mortality Used in Epidemiology Special Topics: NIH Podcasts	Proposal: Research Topic
WEEK 5 Feb 19	Identifying and accessing public health data	Chapter 3. Measures of Morbidity and Mortality Used in Epidemiology Special Topics: AMA	Exercises: NIH Podcasts
WEEK 6 Feb 26		Chapter 4. Descriptive Epidemiology: Person, Place, Time Guest Speaker: MPH Alumni	Proposal: Literature Review
WEEK 7 Mar 5		Chapter 4. Descriptive Epidemiology: Person, Place, Time Review Exercises: Ch 01-04	Exercises: Ch 01-04 Proposal: Summary of Article
WEEK 8 Mar 12		MIDTERM EXAM: Ch 01-04	
WEEK 9 Mar 19		SPRING BREAK - NO CLASS	Exercises: Rethinking the Hispanic Paradox
WEEK 10 Mar 26	Identifying and accessing public health data Epidemiological methods across settings	Chapter 5. Sources of Epidemiological Data Special Topics: Rethinking the Hispanic Paradox (discussion) Special Topics: Eradication and Melinda and Bill Gates Foundation	Proposal: Measures Presentation (430p)

WEEK 11 April 2	Epidemiological methods across settings	Chapter 6-7. Ecologic, Cross-Sectional, Case-Control, Cohort Study Designs Proposal: Preliminary Presentation Guest Speaker: MPH Alumni	Exercises: Gates Foundation Annual Letter Proposal: Outline
WEEK 12 April 9	Epidemiological methods across settings	Chapter 6-7. Ecologic, Cross-Sectional, Case-Control, Cohort Study Designs Special Topics: Strategic Frameworks	Proposal: Background and Significance Articles
WEEK 13 April 16	Epidemiological methods across settings	Chapter 6-7. Ecologic, Cross-Sectional, Case-Control, Cohort Study Designs Guest Speaker (Software): Reference Managers, Harvey Castellano, Health Science Librarian	Proposal: Aims and Methods (DRAFT)
WEEK 14 April 23	Epidemiological methods across settings	Review of Study Designs (observational) Chapter 8. Experimental Study Designs	Proposal: Aims and Methods
WEEK 15 April 30		Review Exercises: Ch 05-08 Special Topics: Paso del Norte Healthy Communities Network	Exercises: Ch 05-08 Proposal: Oral PP Presentation (DRAFT)
WEEK 16 May 7	Identifying and accessing public health data Epidemiological methods across settings	Proposal: Oral Presentations	Proposal: Oral PP Presentation (430p)
WEEK 17 May 14	Identifying and accessing public health data Epidemiological methods across settings	FINAL EXAM: Tuesday, May 14 th , 5:00 pm -7:00 pm BOOK CHAPTERS: Ch 05-08	