

COURSE SYLLABUS

Texas A&M University- San Antonio
College of Arts and Sciences

HLTH 4337-001 – DISEASE ENTITIES AND EPIDEMIOLOGY

Credit Hours: 3

SPRING 2025

Rector Arya, PhD. MA. M.Ed. FTOS

E-mail : rector.arya@tamusa.edu

Office Hours: TR 2-3 pm

TR 11:00 AM-12:15 PM

Office: STEM 149A

Phone : 210-668-5436

Classroom: MADLA 210

You may text me or email me at my cell 210-668-5436 if you have a question.
Other office hours are available by appointment.

Course Description:

Introduction to basic principles and concepts in epidemiology, including sources of public health data and data presentation, descriptive epidemiology, epidemiological measurements used to describe disease occurrence, association and causation, basic experimental and analytic study designs in public health, and examples of applied epidemiological methods in social, behavioral and clinical science. This course will offer an introduction to Epidemiology of diseases with an emphasis on health promotion and disease prevention. Community outreach programs, services, disease preventative strategies, research and policies that affect and impact health in the United States will also be reviewed and examined.

Required Text:

• **Robert H. Friis (2023. *Epidemiology 101 (3rd Ed.)*. Burlington, MA: Jones & Bartlett Learning. ISBN: 978-1-284-22909-7**

Additional Materials: Selections from David C. Celentano & Moyses Szklo (2019). *Gordis Epidemiology, 6th edition*. Elsevier, Inc. Gordis Epidemiology is a foundational classic in the field. Dr. Leon Gordis was actively engaged in teaching epidemiology at Johns Hopkins for over four decades.

I may also post occasional brief supplementary materials/readings on Blackboard. These will often be with the intent of prompting discussion of timely, current events important in public health.

Course Learning Goals: Upon completion of this course, students will be able to:

Student Responsibilities and Assessments

Attendance is important as each student is expected to attend all classes and participate in all exercises, quizzes, discussions, assignments, and examinations.

Course Learning Goals: Upon completion of this course, students will be able to:

1. Define the epidemiological aspects of diseases, causality and association between predictor and disease outcome.

2. Interpret basic epidemiological data, study designs, health statistics and graphs related to disease occurrence.
 3. Compute simple epidemiological statistics (incidence, prevalence, case-fatality rate etc.) and perform descriptive and analytic epidemiology.
 4. Understand the criteria commonly used to evaluate causal relationships
 5. Discuss health promotion and disease prevention strategies at the individual and population level.
 6. List and describe the factors associated with disease occurrence and barriers to health care access experienced by different groups of population.
 7. Describe the healthcare concerns and preventative measures for adolescents, young adults, women during midlife and seniors.
 8. Describe the purpose of Healthy People 2030 health goals and objectives as well as other national, state and local initiatives directed towards health promotion and disease prevention.
 9. Identify major demographic, behavioral and environmental factors that are associated with health and how such factors may be incorporated into public health -related epidemiological interventions, programs, and policies.
 10. Identify trends in major health conditions and disease occurrence in the community and perform step by step investigation of an epidemiologic outbreak of infectious disease in a community.
 11. Articulate issues pertaining to disease occurrence and preventative health through interactive class discussion, stimulate critical thinking through multiple choice questions on exams and assignments.
 12. Formulate and apply epidemiologic methodology to identify a specific public health problem, develop a hypothesis, and design a study to investigate the issue.
-

HLTH 4337 COURSE SCHEDULE

Week 1: Orientation; Introduction to Epidemiology & Population Health (Chapters 1 & 2)

Week 2: Epidemiology and Data Presentation (Chapter 2)

Week 3: Epidemiological Measures of disease occurrence (Chapter 3)

Week 4: Data entry, calculation, and disease occurrence in communities (Chapter 4)

Week 5: Descriptive Epidemiology: Patterns of Disease—Person, Place, Time (Chapter 5)

Week 6: Association and Causality (Chapter 6)

Week 7: Review & Midterm

Week 8: Analytic Epidemiology: types of Study Design (Chapter 7)

Week 9: Epidemiology and Public Policy (Chapter 8)

Week 10: Epidemiology and Screening for Disease (Chapter 9)

Week 11: Social and Behavioral Epidemiology (Chapter 11)

Week 12: Special Epidemiological Applications (Chapter 12)

Week 13: CDC Epi-Info Data practice

Week 14: Review of Chapters 7-12

Week 15: Reading Days

Week 16: Final Exam (May 13, 10.00 -11.50 am)

Grading Policy Grade Scale The final grade will be determined by the accumulation of points earned by the following:

A = 380-420

B = 340-379

C = 300-339

F = Below 299

Assignments	Possible Points Earned
Homework/Assignments (1 and 2): Essay type questions. Each Assignment is worth 25 points.	50 points
Research Paper	50 points
Chapter Quizzes (12 Chapters Total, 10 points each)	120 points
Exams (Mid-Exam & Final Exam-100 points each)	200 points
Total Possible Points	420 points

Homework/Assignments (50 points): Homework and Assignments are to be completed and submitted at the blackboard website. There are two assignments each worth 25 points with essay type questions. Answers should be relevant to the question. Read the chapter and answer those questions typed in Times New Roman 12 points in short paragraphs. No word limit or page limit.

Research Paper (50 points): Student will be required to write a research paper on any health-related issue. There is a variety of health issues that can be addressed. The goal of the paper is to identify epidemiological trends of a disease (whether the incidence or prevalence has been increasing or decreasing over the past decade), after introduction section specify what is the incidence, prevalence, mortality, morbidity rates for that disease state or region stats and compare it to national level. What happens if the disease is neglected. Specify preventive measures, screening etc. Discuss causality and

association and to explore the prevention efforts or solutions to improve the overall issue. The paper should include at least 4 references journal articles. The required textbook can count towards one of your references. All references must be professional and scholarly. Only one professional website can be used, all others must be journal articles or government-type reports. Instructions will be provided in class.

Chapter Quizzes (120 points [12 chapters total, 10 points each]): There will be 10 multiple choice questions from each chapter which will be 1 point each. Chapter wise quizzes should be completed upon completion of the chapter for that week. The 12 chapter-quizzes amount to a total of 120 points.

Exams (100 points each): There will be two exams (mid-term and final) that will cover materials presented in class, assigned readings and discussions. The exams consist of True/False and multiple-choice questions. Both mid-term and final exam together will be a total of 200 points.

IMPORTANT POLICIES AND RESOURCES

Academic Accommodations for Individuals with Disabilities: Texas A&M University-San Antonio is committed to providing all students with reasonable access to learning opportunities and accommodations in accordance with The Americans with Disabilities Act, as amended, and Section 504 of the Rehabilitation Act. If you experience barriers to your education due to a disability or think you may have a disability, Disability Support Services is located in the Central Academic Building, Suite 210. You can also contact us via phone at (210) 784-1335, visit us <https://www.tamusa.edu/Disability-Support-Services/index.html> or email us at dss@tamusa.edu. Disabilities may include, but are not limited to, attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability-related needs with Disability Support Services and their instructors as soon as possible.

Academic Learning Center: The Academic Learning Center provides free course-based tutoring to all currently enrolled students at Texas A&M University-San Antonio. Students wishing to work with a tutor can make appointments through the Brainfuse online tutoring platform. Brainfuse can be accessed in the *Tools* section of Blackboard. You can contact the Academic Learning Center by emailing tutoring@tamusa.edu, calling (210) 784-1307, or visiting the Central Academic Building, room 202.

Counseling/Mental Health Resources: As a college student, there may be times when personal stressors interfere with your academic performance and negatively impact your daily functioning. If you are experiencing emotional difficulties or mental health concerns, support is available to you through the Student Counseling Center (SCC). To schedule an appointment, call 210-784-1331 or visit Madla 120.

All mental health services provided by the SCC are free and confidential (as the law allows). The Student Counseling Center provides brief individual and group therapy, crisis intervention, consultation, case management, and prevention services. For more information on SCC services visit tamusa.edu/studentcounseling

Crisis support is available 24/7 by calling the SCC at 210-784-1331 (after-hours select option '2').

Additionally, the TELUS Student Support App provides a variety of mental health resources to including support for in the moment distress, an anonymous peer to peer support network, mental health screenings, podcasts, and articles to improve your mental wellbeing.



Emergency Preparedness: JagE Alert is Texas A&M University-San Antonio's mass notification. In the event of an emergency, such as inclement weather, students, staff and faculty, who are registered, will have the option to receive a text message, email with instructions and updates. To register or update your information visit: <https://tamusa.bbcportal.com/>.

More information about Emergency Operations Plan and the Emergency Action Plan can be found here: <https://www.tamusa.edu/about-us/emergency-management/>.

Download the SafeZone App (<https://safezoneapp.com/>) for emergencies or call (210) 784-1911. Non-Emergency (210) 784-1900.

Financial Aid and Verification of Attendance: According to the following federal regulation, 34 CFR 668.21: U.S. Department of Education (DoE) Title IV regulation, a student can only receive Title IV funds based on Title IV eligibility criteria which include class attendance. If Title IV funds are disbursed to ineligible students (including students who fail to begin attendance), the institution must return these funds to the U.S. DoE within 30 days of becoming aware that the student will not or has not begun attendance. Any student receiving federal financial aid who does not attend by the census date will have their financial aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester, a Care report will be submitted, and you will possibly be dropped from the class. Your financial aid may have to be recalculated and a portion of your federal aid may have to be returned to the DoE.

Writing, Language, and Digital Composing Center: The Writing, Language, and Digital Composing Center supports graduate and undergraduate students in all three colleges as well as faculty and staff. Tutors work with students to develop reading skills, prepare oral presentations, and plan, draft, and revise their written assignments. Our language tutors support students enrolled in Spanish courses and students composing in Spanish for any assignment. Our digital studio tutors support students working on digital projects such as eportfolios, class presentations, or other digital multimedia projects. Students can schedule appointments through JagWire under the Student Services tab. Click on "Writing, Language, and Digital Composing Center" to make your appointment. The Center offers face-to-face, synchronous online, and asynchronous digital appointments. More information about what services we offer, how to make an appointment, and how to access your appointment can be found on our website at <https://www.tamusa.edu/academics/>.

Meeting Basic Needs: Any student who has difficulty affording groceries or accessing sufficient food to eat every day or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to submit a CARE referral (<https://www.tamusa.edu/university-policies/Student-Rights-and->

[Responsibilities/file-a-report.html](#)) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to direct you to available resources.

Military Affairs: Veterans and active-duty military personnel are welcomed and encouraged to visit the Office of Military Affairs for any question involving federal or state VA Education Benefits. Visit the Patriots' Casa building, room 202, or to contact the Office of Military Affairs with any questions at military.va@tamusa.edu or (210)784-1397.

Religious Observances: Texas A&M University-San Antonio recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or course work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes for regular session classes.

The Six-Drop Rule: Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student's GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as "F" grades and will impact the student's GPA.

Statement of Harassment and Discrimination: Texas A&M University-San Antonio is committed to the fundamental principles of academic freedom, equal opportunity, and human dignity. To fulfill its multiple missions as an institution of higher learning, A&M-San Antonio encourages a climate that values and nurtures collegiality and the uniqueness of the individual within our state, nation, and world. All decisions and actions involving students and employees should be based on applicable law and individual merit. Texas A&M University-San Antonio, in accordance with applicable federal and state law, prohibits discrimination, including harassment, on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, gender identity, gender expression, or pregnancy/parenting status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the appropriate offices within their respective units.

Texas A&M University-San Antonio faculty are committed to providing a safe learning environment for all students and for the university as a whole. If you have experienced any form of sex- or gender-based discrimination or harassment, including sexual assault, sexual harassment, domestic or dating violence, or stalking, know that help and support are available. A&M-San Antonio's Title IX Coordinator can support those impacted by such conduct in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. The university strongly encourages all students to report any such incidents to the Title IX Coordinator. Please be aware that all A&M-San Antonio employees (other than those designated as confidential resources such as counselors and trained victim advocates) are required to report information about such discrimination and harassment to the university. This means that if you tell a faculty member about a situation of sexual harassment, sexual violence, or other related misconduct, the faculty member must share that information with the university's Title IX Coordinator (titleix@tamusa.edu, 210-784-2061, CAB 439K). If you wish to speak to a confidential employee who does not have this reporting requirement, you can contact the Student Counseling Center at (210) 784-1331 or visit them in Madla 120.

Pregnant/Parenting Students: Texas A&M-San Antonio does not require a pregnant or parenting student, solely because of that status or issues related to that status, to (1) take a leave of absence or withdraw from their degree or certificate program; (2) limit the student's studies; (3) participate in an alternative program; (4) change the student's major, degree, or certificate program; or (5) refrain from joining or cease participating in any course, activity, or program at the University. The university will provide such reasonable accommodations to pregnant students as would be provided to a student with a temporary medical condition that are related to the health and safety of the student and the student's unborn child. These could include maintaining a safe distance from substances, areas, and activities known to be hazardous to pregnant individuals and their unborn child; excused absences because of illness or medical appointments; modified due dates for assignments; rescheduled tests/exams; taking a leave of absence; and being provided access to instructional materials and video recordings of lectures for excused absences, if these would be provided to any other student with an excused absence. Pregnant/parenting students are encouraged to contact the Title IX Coordinator with any questions or concerns related to their status (titleix@tamusa.edu; 210-784-2061; CAB 439K).

Texas A&M-San Antonio has also designated the Title IX Coordinator as the liaison officer for current or incoming students who are the parent or guardian of a child younger than 18 years of age. The Title IX Coordinator can provide students with information regarding support services and other resources.

Students' Rights and Responsibilities: The following statement of students' rights and responsibilities is intended to reflect the philosophical base upon which University Student Rules are built. This philosophy acknowledges the existence of both rights and responsibilities, which is inherent to an individual not only as a student at Texas A&M University-San Antonio but also as a citizen of this country.

Students' Rights

1. A student shall have the right to participate in a free exchange of ideas, and there shall be no University rule or administrative rule that in any way abridges the rights of freedom of speech, expression, petition and peaceful assembly as set forth in the U.S. Constitution.
2. Each student shall have the right to participate in all areas and activities of the University, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, gender identity, gender expression, and pregnancy/parenting or veteran status in accordance with applicable federal and state laws.
3. A student has the right to personal privacy except as otherwise provided by law, and this will be observed by students and University authorities alike.
4. Each student subject to disciplinary action arising from violations of university student rules shall be assured a fundamentally fair process.

Students' Responsibilities

1. A student has the responsibility to respect the rights and property of others, including other students, the faculty, and administration.

2. A student has the responsibility to be fully acquainted with the published University Student Rules found in the Student Handbook, Student Code of Conduct, on our website, and University Catalog, and to comply with them, as well as with federal, state, and local laws.
3. A student has the responsibility to recognize that student actions reflect upon the individuals involved and upon the entire University community.
4. A student has the responsibility to recognize the University's obligation to provide a safe environment for learning.
5. A student has the responsibility to check their university email for any updates or official university notifications.

We expect that students will behave in a manner that is dignified, respectful, and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation, or disability. Conduct that infringes on the rights of another individual will not be tolerated.

Students are expected to exhibit a high level of honesty and integrity in their pursuit of higher education. Students engaging in an act that violates the standards of academic integrity will find themselves facing academic and/or disciplinary sanctions. Academic misconduct is any act, or attempt, which gives an unfair advantage to the student. Additionally, any behavior specifically prohibited by a faculty member in the course syllabus or class discussion may be considered as academic misconduct. For more information on academic misconduct policies and procedures please review the Student Code of Conduct (<https://www.tamusa.edu/university-policies/student-rights-and-responsibilities/documents/Student-Handbook-2022-23.pdf>) or visit the resources available in the OSRR website (<https://www.tamusa.edu/university-policies/student-rights-and-responsibilities/academic-integrity.html>). **Insert ONE of the AI policy options listed below in your syllabi – Select the one you believe is most appropriate for your course.**

Option 2 – Use of Generative AI Permitted Under Some Circumstances or With Explicit Permission

There are situations and contexts within this course where you may be asked to use artificial intelligence (AI) tools to explore how they can be used. Outside of those circumstances, you should not use AI tools to generate content (text, video, audio, images) that will end up in any student work (assignments, activities, discussion responses, etc.) that is part of your evaluation in this course. Any student work submitted using AI tools should clearly indicate with attribution what work is the student's work and what part is generated by the AI. In such cases, no more than 25% of the student work should be generated by AI. If any part of this is confusing or uncertain, students should reach out to their instructor for clarification before submitting work for grading. Use of AI-generated content without the instructor's permission and/or proper attribution in this course qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

NOTE: Guidance for how to cite AI-generators, like ChatGPT, can be found here

<https://apastyle.apa.org/blog/how-to-cite-chatgpt>

The complete academic calendar is available online: <https://www.tamusa.edu/academics/academic-calendar/index.html>

****Any material on this syllabus is subject to change if a compelling situation arises. You will be notified via email and Bb announcement.****