

HLTH 4337 Disease Entities and Epidemiology - Syllabus

SPRING 2026

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Office Hours: TR 2-3 PM

TR 11:00 AM-12:15 PM

Office: STEM 149A

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Classroom: MADLA 254

You may text me or email me on 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.

TSI Restriction(s): **Reading, Math, and Writing**

Restrictions: Graduate level students may not enroll.

Prerequisites: A passing grade of 'C' or better in BIOL 2411 (*Genetics*), HLTH 3335 Data Management & Assessment OR BIO 2415 Statistics in Biology & Medicine OR MATH 3301 or Biostatistics) (drop the Genetics requirement or allow substitution for the Math/ Biostats)

Required Text:

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

Additional Materials:

Recommended Text: Selections from "**Prevention of Diseases in Populations: from Biology to Policy**" by Thomas Farley. ISBN: 9781284297157.

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.

Student Responsibilities and Assessments: Each student is expected to participate and contribute in all exercises, quizzes, discussions, assignments, and examinations.

Course Learning Goals:

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

1. Develop critical thinking skills, communication skills, and empirical and quantitative skills
 2. Define the epidemiological aspects of diseases, causality and association between predictor and disease outcome.
 3. Interpret basic epidemiological data, study designs, health statistics and graphs related to disease occurrence.
 4. Compute simple epidemiological statistics (incidence, prevalence, case-fatality rate etc.) and perform descriptive and analytic epidemiology.
 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.
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HLTH 4337 COURSE SCHEDULE

Week 1 (Jan 20-22): Epidemiology, Disease Prevention, and Population Health (Chapter 1 & Disease Prevention and Population Health)

Week 2 (Jan 27-29): Epidemiology and Data Presentation (Chapter 2)

Week 3 (Feb 3-5): Epidemiological Measures of disease occurrence (Chapter 3)

Week 4 (Feb 11-12): Data entry, calculation, and disease occurrence in communities (Chapter 4)

Week 5 (Feb 17-19): Descriptive Epidemiology: Patterns of Disease (Chapter 5)

Week 6 (Feb 24-26): Association and Causality (Chapter 6)

Week 7 (March 3-5): Review & Midterm Exam

Week 8 (March 9 -14): Monday - Friday - Spring Break – No Classes

Week 9 (March 17-19): Analytic Epidemiology: Study Designs (Chapter 7)

Week 10 (March 24-26): Epidemiology of Metabolic Diseases (Chapter 7, PDP)

Week 11 (March 31-April 2): Disease Screening, Epidemiology and Public Policy (Chapter 8 & 9)

Week 12 (April 7-9): Infectious Diseases & Outbreak Investigation (Chapter 10)

Week 13 (April 14-16): Social and Behavioral Epidemiology (Chapter 11)

Week 14 (April 21-23): Special Epidemiological Applications (Chapter 12)

Week 15 (April 28-30): Review of Chapters 7-12

Week 16 (May 4): Last Class Day

Week 16 (May 5-May 11): Reading Days – Final Examinations

Week 16 (May 12): Final Exam (May 12, 10-11.50 am)

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

A = 360 - 400 - 90% -100%

B = 320 - 359 - 80% - 89.8%

C = 280 - 319 - 70% - 79.8%

D = 260 - 279 - 65% - 69.8%

F = < 259

Tests/Assignments	Possible Points
Quizzes (10 total)	100 points
Homework/Assignments (3) (Essay type short answers)	60 points (3 x 20)
Research Paper	40 points
Mid-Term Exam	100 points
Final Exam	100 points
Total	400 points

Quizzes (10 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 chapter-quizzes amount to a total of 100 points.

Homework/Assignments (60 points): Homework and Assignments are to be completed and submitted at the blackboard website. There are two assignments each worth 20 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 (40 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 explore the prevention efforts or solutions to improve the overall issue. The paper should include at least 4 references of the 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.

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.

Texas A&M University San Antonio Important Policies and Resources



TEXAS A&M UNIVERSITY SAN ANTONIO

University Email Policy and Course Communications

All correspondence between professors and students must occur via university email accounts. You must have your Jaguar email account ready and working. If it is not working, contact the help desk at helpdesk@tamusa.edu or at 210-784-HELP (4357). If you don't hear back within 48 hours, contact them again. They have many requests during the first part of the semester, so you may need to follow up with them.

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 in the Central Academic Building, Suite 210. You can also contact us via phone at (210) 784-1335, visit us at the website 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 academic accommodation with Disability Support Services and their instructors as soon as possible.

Academic Learning Center

All currently enrolled students at Texas A&M University-San Antonio can utilize the Academic Learning Center for subject-area tutoring. 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. Online tutoring is also available for after hours and weekend assistance.

While tutoring hours may change based on tutor schedules and availability, the current tutoring hours for MATH in the ALC are as follows:

Day of the Week	Appointments Available	Walk-in Tutoring (no appointment needed)
Monday	8:00 AM – 6:00 PM	9:00 AM – 5:00 PM
Tuesday	8:00 AM – 6:00 PM	9:00 AM – 5:00 PM
Wednesday	8:00 AM – 6:00 PM	9:00 AM – 5:00 PM
Thursday	8:00 AM – 6:00 PM	9:00 AM – 5:00 PM
Friday	8:00 AM – 5:00 PM	11:00 AM – 4:00 PM

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, visit our website, call 210-784-1331 or visit Madla 120 between the hours of 8:00 AM and 5:00 PM.

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. Crisis support is available 24/7/365 by calling the SCC at 210-784-1331 or through the TELUS student support App.

The [TELUS Student Support App](#) provides a variety of mental health resources to include 24/7/365 support for in the moment distress, crisis support, 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 system. 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 the [Jag E Alert System website](#). You can access more information about [Emergency Operations Plan and the Emergency Action Plan on our website](#). Download the [SafeZone App](#) 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. Faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended by the published Census Date (the first week of class). Any student receiving federal financial aid who does not attend prior to the published Census Date (the first week of class) will have their aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester may also need to return a portion of their federal aid.

Jaguar Writing, Language, and Digital Composing Center (WLDCC)

The Jaguar Writing Center provides writing support to graduate and undergraduate students in all three colleges as well as faculty and staff. Writing tutors work with students to develop reading skills, prepare oral presentations, 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 e-portfolios, class presentations, or other digital multimedia projects.

The Writing Center offers face-to-face, synchronous online, and asynchronous digital appointments. Students can schedule appointments with the Writing Center in JagWire under the **Student Services** tab. Click on **Writing, Language, and Digital Composing Center** to make your appointment. Students wanting to work in real time with a tutor can schedule an **Online Appointment**. Students wishing to receive asynchronous, written feedback from a tutor can schedule an **e-Tutoring appointment**. More information about what services we offer, how to make an appointment, and how to access your appointment can be found on the [Writing Center's website](#). The Writing Center can also be reached by emailing: writingcenter@tamusa.edu.

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 report for support](#). Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to

direct you to available resources. The [General's Store is a food pantry](#) that is available on campus as well.

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 wide variety 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 with 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 on our campus and within our state, nation, and world. All decisions and actions involving students and employees are to 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, based on race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or pregnancy/parenting status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the University's Civil Rights Officer at 210-784-2061 or titleix@tamusa.edu. Texas A&M University-San Antonio faculty are committed to

providing a safe learning environment for all students and for the university. If you have experienced any form of sex discrimination or harassment, including sexual assault, sexual harassment, domestic or dating violence, or stalking based on sex, 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 sex-based 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 reasonable accommodation for pregnant students as it would be provided to a student with a temporary medical condition that is 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. Young Jaguars can support parenting students with

daycare if students meet this criteria: (1) must be enrolled in classes at Texas A&M-San Antonio in the current semester, (2) must be Pell eligible or a single parent, (3) child(ren) must be aged 3 to 12-years-old, and (4) child(ren) must be enrolled in Pre-K-3 through 6th grade. For more information, please contact Young Jaguars at youngjaguars@tamusa.edu or call (210) 784-2636.

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, 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 students' 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.

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](#) or visit the resources available in the [OSRR website](#).

Important Spring 2026 Dates

Dates	Event
January 13	Tuition and Fee Payments deadline
January 19	Marting Luther King Jr. Day – No Classes
January 20	First Day of Class
February 4	Census Date
March 6-23	Midterm grading period
March 9-14	Spring Break
April 3	Study Day – No classes
April 17	Last day to drop with an automatic withdrawal
May 1	Last day to drop a course or withdraw from the university
May 4	Last Day of Classes
May 5	Study Day – No classes
May 6-12	Final Exams
May 19	Commencement

The complete [Academic Calendar](#) as available on our website.

Artificial Intelligence Policy

(Note: Insert **one** of the AI policy options listed below in your syllabi – Select the one you believe is most appropriate for your course and delete this message and the other options from the page.)

Option 1: No Use of Generative AI Permitted [Insert Course Number]

This assumes that all work submitted by students will be generated by the students themselves, working individually or in groups. Students should not have another

person/entity do the writing of any portion of an assignment for them, which includes hiring a person or a company to write assignments and/or using artificial intelligence (AI) tools like ChatGPT. Use of any AI-generated content in this course qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

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.

Option 3: Broader Use of Generative AI Permitted Within Guidelines

Use of artificial intelligence (AI) tools, including ChatGPT, is permitted in this course for students who wish to use them. To adhere to our scholarly values, students must cite any AI-generated material that informed them of their work (this includes in-text citations and/or use of quotations, and in your reference list). Using an AI tool to generate content without proper attribution qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

Option 4: Customized Policy Generative AI Policy

Faculty may create a customized policy that is unique for a specific course with consultation from the department chair. Faculty are encouraged to view Texas A&M University's Generative AI Syllabus Statement Considerations when preparing a customized AI policy.

(Note: [There is guidance for how to cite AI-generators, like ChatGPT on the APA website.](#)