

COURSE SYLLABUS
Texas A&M University- San Antonio
College of Arts and Sciences
HLTH 3335 – DATA MANAGEMENT AND ASSESSMENT
Credit Hours: 3

FALL 2025
Rector Arya, PhD. MA. M.Ed. FTOS
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Office Hours: MWF 2-3 pm

MWF 10:00 AM-10.50 AM
Office: STEM 149A
Phone : 210-668-5436
Classroom Hall 303

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

Course Description:

This is an interactive, hands-on course that familiarizes students with descriptive and analytical statistics used in the epidemiologic data analysis including the CDC software Epi-Info for managing, analyzing and assessing population health data. The course focuses on using the freely-available Epi-Info to produce descriptive data reports including tables, graphs, and geographic visuals to analyze and assess data for decision making.

Epi-Info 7 is a series of freely-distributable tools and utilities for Microsoft Windows for use by public health professionals to conduct outbreak investigations, manage databases for public health surveillance and other tasks. It enables physicians, epidemiologists, and other public health and community health officials to rapidly develop a questionnaire or form, customize the data entry process, and enter and analyze data. Using a fictional food-borne illness outbreak as a training scenario, students will learn topics such as creating a survey in Form Designer, using Check Code to customize data entry, creating some analyses with the Visual Dashboard, and presenting data geospatially with Epi Map.

TSI Restriction(s): Reading, Writing, Math

Prerequisites: CHEM 1111, 1311, BIOL 1106, 1306, and previous or concurrent enrollment in MATH 3301.

Restrictions: Graduate level students may not enroll.

Textbook/Resource Materials:

Required Software:

- <https://www.cdc.gov/field-epi-manual/php/about/index.html>
- Epi Info™ version 7 for Windows <https://www.cdc.gov/epiinfo/pc.html>
- <https://www.cdc.gov/epiinfo/support/downloads.html>
- Epi Info™ 7 Salmonella Outbreak Tutorial
<https://www.cdc.gov/epiinfo/zipfiles/SalmonellaTutorialV31.zip>
- <https://www.cdc.gov/epiinfo/pdfs/eihat/EIHATFull.pdf>

Recommended Textbook:

The CDC Field Epidemiology Manual, Eds. Rasmussen & Goodman, 2024.

Chapters 4 to 8 and 10.

Working With Data in Public Health: A practical Pathway with R 2022 by Peng Zhao (eBook) – ***Epi modules under Packages in Public Health***

Reference Textbooks:

Epidemiology: Study Design and Data Analysis, Third Edition by Mark Woodward
Chapman & Hall/CRC Texts in Statistical Science CRC Press, 2013 ISBN: 1439839700, 9781439839706

Basic Biostatistics – Statistics for Public Health Practice, 2nd edition. B. Burt Gerstman, Jones and Bartlett Learning, 2015.

Additional Materials:

I may also post 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:

1. Learn the standard criteria for managing, selecting, and appraising data.
2. Understand the principles of data management, techniques in designing and implementing databases for large data systems.
3. Get introduced to statistical software such as Excel, Epi Info 7, SPSS, and R.
4. Gain understanding technical skills in managing epidemiologic data in specific research settings.
5. Understand the importance of data collection, management and analysis in community health contexts.
6. Understand the importance of the research question and study design in data analysis
7. Understand steps in basic data analytical procedures.
8. CDC software Epi-Info to create surveys, customize data entry, and produce descriptive data reports.
9. Use CDC software Epi-Info to produce tables, graphs, and present data geospatially with Epi-Map.
10. Public health policies for research data, requirements for researchers and epidemiologists.

HLTH 3335 COURSE SCHEDULE

Week 1: Overview of data management and assessment

Week 2: Study design, data collection and management

Week 3: Epidemiologic data description and analysis

Week 4: Epi Info for Windows, data entry, and calculation

Week 5: Identification of risk factors for disease and determinants of health

Week 6: Designing and conducting analytic studies

Week 7: Review & Midterm

Week 8: Basic analytical procedures of epidemiologic data

Week 9: Evaluating the association between the exposure and outcome

Week 10: Modelling quantitative outcome variables

Week 11: Modelling binary outcome variables

Week 12: Analyzing, interpreting, presenting data

Week 13: Data-based decision-making related to health policies and programs

Week 14: Review of Chapters from 8-13 weeks:

Week 15: Reading Day

Week 16: Final Exam (Dec 12, 8.00-9.50 AM)

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

Course Grades

Homework/assignments 4 (x 20 points):	80 points
In-class quizzes 3 (x 10 points):	30 points
Mid-term Exam:	100 points
Data Analysis Project 1 (x 40):	40 points
Final Exam:	100 points

TOTAL	350 points

Final Letter Grade

90-100 points:	A
80-89 points:	B
70-79 points:	C
60-69 points:	D
<60 points:	F

COURSE SCHEDULE: The course schedule, readings, assignments, and syllabus policies are subject to change at instructor's discretion. You will be notified of changes via Blackboard Announcements and during class. Changes are often to benefit the needs of the class.

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.

Homework Assignments (80 points): Homework and Assignments are to be completed and submitted at the blackboard website. There will be four homework assignments each worth 20 points with Data-related problems or Data analysis.

Research Project/Paper (40 points): Student will be required to do a research project on any health-related Data. There is a variety of health data sets that can be used. Instructions will be provided in class.

Quizzes (30 points): There will be three quizzes.

Exams (200 points): There will be two exams (mid-term and final) that will cover materials presented in class, assigned readings and discussions. Both mid-term and final exams together will be for a total of 200 points.

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

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 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 <http://tamusa.edu/studentcounseling>

Crisis support is available 24/7 by calling the SCC at 210-784-1331.

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. 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.

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.

Office Hours: All faculty with teaching assignments should include regularly scheduled office hours on each syllabus in addition to "by appointment." Please review your appointment letter for the number of weekly office hours you are expected to set. Regularly scheduled office hours should also be posted outside your office door (where applicable).

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 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, on the basis of 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 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 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 such reasonable modifications to pregnant students as would be provided to a student with 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.

Young Jaguars: can support parenting students with daycare who meet this criteria: Must be enrolled in classes at TAMUSA in the current semester. Must be Pell eligible or a single parent. They serve children ages 3 to 12-years-old. Children must be enrolled in Pre-K-3 through 6th grade.

youngjaguars@tamusa.edu (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, 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 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.

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-andresponsibilities/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/academicintegrity.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 1 - No Use of Generative AI Permitted

[Insert Course Number] 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 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: Guidance for how to cite AI-generators, like ChatGPT, can be found here

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

Important Dates: Fall 2025 Regular 16-Week Session

August 25 First day of class

September 1

September 10

November 14

Labor Day Holiday – No classes

Census Date

Last day to drop with an automatic "W"

November 25 Last day to withdraw from the University

November 26 Study Day – No classes

November 27-29 Thanksgiving Holiday – No classes

December 4 Last day of classes

December 5 Study Day – No classes

December 6-12 Final exams

December 16 Commencement

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