

**Course Syllabus**  
**HSAD 5293x10: Managerial Epidemiology and Biostatistics**  
**Fall 2024,**  
**MSU Texas**  
**College of Health Sciences and Human Services**  
**Department of Criminal Justice and Health Administration**



**Instructor:** Robin Moreno, EdD, FACHE, CPHRM, CCEP, CHC, CC, LSSYB

**Office Hours:** By appointment only.

**Email:** D2L Email Only. Most emails will be returned within 24-48 hours. Please plan accordingly.

**Class Meets:**

HSAD 5293 X10 Online-This course is an online, asynchronous class conducted via D2L. Class begins August 26, 2024. The last day of classes is December 6, 2024.

**Course Overview:**

In this course, the student will focus on the principles and practices of monitoring disease status and control related to health services management. Through assignments, the student's studies will emphasize the epidemiologist's methods, databases, and procedures as a basis for sound decision-making. The student will examine the distribution and determination of diseases and injuries in human populations to achieve these ends. Additionally, students will review historical disease patterns, medical science, healthcare issues, biomedical statistics, and computer applications. Core management aspects will be emphasized during the course and relate to critically evaluating a community's and/or population's health status.

**Course Objectives:**

At the completion of the course, the student will have completed the following course learning objectives:

1. Demonstrate an understanding of the organization and structure of healthcare organizations.
2. Have knowledge of different means of motivating professionals using the principles of various theories of motivation.
3. Demonstrate an understanding of leadership in health organizations, applying alternative frameworks for leadership.
4. Demonstrate knowledge of conflict resolution and negotiation as described in the books and additional readings.
5. Demonstrate an understanding of how to manage groups and teams.
6. Have knowledge of how to design various health services organizational subsystems.
7. Be able to integrate theoretical and applied content to analyze organizational situations.
8. Have knowledge of the basic principles of strategy and finance for healthcare organizations.

**Required Textbooks and Materials:**

Fleming, S. T. (2015). Managerial Epidemiology – Cases and Concepts. 3<sup>rd</sup> Ed. ISBN 9781567936841

Hebel, J.R., & McCarter, R. (2011). A Study Guide to Epidemiology and Biostatistics. 7th Edition. Jones & Barlett.

**Other Materials:**

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). <https://doi.org/10.1037/0000165-000>

Supplemental readings and/or information may be made available at times during the course.

**Instructional Methods:**

Instructional strategies for this class will include assigned readings, participation in discussions, and written assignments, which will include independent research.

**Course Assignments:**

*Weekly Modules:* Modules specific to each course week are posted on D2L. Each module consists of the following measurable learning outcomes: assigned readings, written assignments, or a discussion question due. Please follow the instructions for assignment completion posted within each module. Each module must be completed by the due date specified in the tentative course schedule included in this syllabus.

*Class Discussion:* Each module will have one discussion consisting of questions or a case study. Whenever possible, the professor will try to design cases and questions to help you explore issues that will help you in your future career. Each module will contain various questions that will be explored during the discussions. Student responses should be provided in the text window within the discussion area and NOT as an attachment. Students are encouraged to type their responses in Word and copy/paste them into the discussion response window. Student responses must be carefully thought out, drawing upon the readings or other appropriate outside sources. For each discussion, students should post their own discussion and respond to others' posts (at least two classmates'). Initial discussion posts should include at least two peer-reviewed sources besides your text. Initial discussion posts should be between 250 and 300 words, and responses should be at least 75 and 150 words. Peer responses should include at least one peer-reviewed source. The points earned depend on the student's context, the quote from the literature, the response to others, etc. Responses to others' posts should be thoughtful and add to the discussion – a response of "I agree" will not earn any points. Discussion posts will be graded based on the quality of the content, length of the content, and compliance with APA7 guidelines for citations and references. This is a great platform to share your experiences and thoughts on weekly topics.  
*Note:* Complete APA formatting cannot be done within D2L. When posting in discussions, the student may not be able to incorporate hanging indents, double spacing, or page headers/footers. However, correct citations and references are still required.

*Written Assignments:* Some modules will include a written assignment. The assignment may include short questions, essay-type questions, and/or case studies. The goal of the Writing Assignment is to help the student apply and focus on the information contained in the modules. Students will delve deeper into the theory surrounding the subjects covered in the module(s). Writing Assignments require a minimum of two unique (i.e., don't use the same references for each) peer-reviewed articles. Textbooks, magazines, newspapers, and trade journals are **NOT** peer-reviewed. The professor will review each assignment using a rubric that will be posted in Module 1. Grading by the professor may take up to ten working days (weekends and holidays don't count toward the ten days). Students should use these comments to help them improve and correct their errors in the next Writing Assignment. Not correcting errors signifies one of two things to the professor –students are either unclear about the error or have not reviewed the comments. The student is responsible for contacting the professor for more details. During the discussion and writing assignments, the student should take on the role of a mid to upper-level administrator in a healthcare organization. Each module will contain various questions that will be

explored during a Writing Assignment and/or the discussions. This course follows the American Psychological Association (APA) writing guidelines. It is important that all academic writers learn how to properly format scholarly work as this enhances communication and provides a standardized approach to scholarly writing. To this end, APA guidance is an excellent resource as it includes writing style and format related to grammar, sentence and paragraph structure, headings, title page, quotes, and referencing.

*Final Exam:* A written final exam will be conducted for this course and will include questions and case studies related to the course materials. The final exam is online and will be timed. Exams in this class will be completed using Respondus Lockdown Monitor. Respondus Lockdown Monitor will record video of students completing the exam. More details on the final exam format will be provided later in the semester.

**NOTE: THE FINAL EXAM IN THIS COURSE MUST BE PROCTORED WITH THE HELP OF RESPONDUS. DETAILED INSTRUCTIONS WILL BE PROVIDED BEFORE THE EXAM. THE TECHNICAL REQUIREMENTS INCLUDE A LAPTOP OR PC WITH A WEBCAM.**

**LATE WORK:** No discussion posts, assignments, or exams will be accepted later than the due date. All assignments submitted after the due date will receive an automatic zero unless permission is given before the due date. Requests to turn in work late must be submitted in writing at least ONE week before the submission due date. Permission will only be given if very unusual, extreme circumstances arise. Computer and work issues are not unusual circumstances, as the student is provided time to complete each assignment. Do not wait until the last minute to complete assignments.

**TurnItIn:** MSU takes plagiarism very seriously and has provided many resources to help students avoid intentional and unintentional plagiarism. TurnItIn is an excellent plagiarism checker and runs a report each time an assignment is submitted. Students have access to a version of the report through the Assignments area, and this report provides a similarity index. Students are encouraged to review the TurnItIn report, as it highlights areas that need better paraphrasing. It will often also highlight resources and headers, so please ignore these as they are not of concern. The professor reviews the TurnItIn report and may contact you for any concerns. Students must paraphrase, cite, and reference appropriately in their papers following APA 7<sup>th</sup> edition guidelines. The majority of a paper needs to be written in the student's own words (paraphrased) with appropriate citations. Quotations should rarely be used, following APA 7<sup>th</sup> edition guidelines.

**Course Assignment Style Guidelines:**

For all written assignments and discussion board posts, students are expected to follow APA 7<sup>th</sup> edition formatting guidelines.

**Grading:**

Final grades will be calculated using the total points obtained in class. The weighting of assignments for purposes of grading will be as follows:

<b>Assignments</b>	<b>Grade Points</b>
Discussion Posts (10x11)	110 Points
Written Assignment (3x30)	90 Points
Final exam (1x100)	100 Points
Total Possible Points	300 Points

Grade percentages (GP) will be calculated based on a student's accumulated points throughout the semester. The following point scale will be utilized for grading:

270-300 Points (90% or More)	A
240-269 Points (80%-89.99%)	B
210-239 Points (70%-79.99%)	C
180-209 Points (60-69.99%)	D

Students who accumulate below 209 points or 69% of GP will get an 'F'

*Notes:* It is important to know that obtaining a 'C' or lower grade in the course may impact your enrollment in the program. There are no extra credit opportunities in this course.

Since this is an online, asynchronous learning course, your discussion posts will be counted as your participation in the class. Communicating through discussion posts is critical.

### **Academic Honesty:**

The written work reflects the student's own ideas and words unless specifically attributed to another source. A very limited amount of quotation and paraphrasing for written assignments is acceptable. However, appropriate acknowledgment of the ideas, works, writings, or opinions must be stated. Academic dishonesty is unacceptable and a breach of the student code of ethics.

Dishonesty includes, but is not limited to:

- 1) Plagiarism
- 2) Submitting work that was not prepared by you (fraud)
- 3) Helping another student with their work (cheating)
- 4) Group work, unless specifically assigned by the professor

For more information on the student code of ethics, please visit [Student Conduct](#)

### **AI Statement:**

Writing, analytical, and critical thinking skills are part of the learning outcomes of this course. The student will prepare all writing assignments. Developing strong competencies in this area prepares the student for a competitive workplace. Therefore, AI-generated submissions are not permitted and will be treated as plagiarism.

**Please note that any breach of the student code of ethics could result in dismissal or an 'F' grade.**

### **Desire-to-Learn (D2L):**

This course exclusively uses the MSU D2L program. Each student is expected to be familiar with this program, which provides a primary source of communication regarding assignments, examination materials, and general course information. Students log into D2L through the MSU Homepage. Please contact the program technicians listed for any difficulties.

### **Online Computer Requirements:**

Students must have access to a computer with Internet access to complete and upload assignments. Students are responsible for having (or having access to) a working computer in this class. ***Assignments and tests are due by the due date, and computer technical difficulties are not considered a reason for the professor to allow students extra time to submit assignments, tests, or discussion postings.*** Computers are available on campus in various areas of the buildings, as well as the Academic Success Center. For technical difficulties in the course, a student helpdesk is available for assistance. The college cannot work directly on student computers due to liability and resource limitations. For help, log into [D2L](#). On the course home page, the student will find a *Help* section with selections including *Student Resource Page* and *Report a Problem*.

**Students with Disabilities:**

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, MSU Texas endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should apply for such assistance through Disability Support Services in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required to provide appropriate services, and each request will be individually reviewed. To learn more about DSS, you can also visit [Disability Support Services](#)

**Campus Carry:**

Please refer to the University's webpage at [Campus Carry Rules](#)

**Note:** The syllabus's contents are as accurate as possible. Changes in the course syllabus, procedure, assignments, and schedule may be made at the instructor's discretion. It is the student's responsibility to know what changes have been made and complete the course requirements. There are no extra credit opportunities in this course.

**Tentative Class Schedule Fall 2024**, all due dates and times adhere to the **Central Time Zone**:

Week	Topic and Readings	Assignment
Week 1 8/26-8/31	INTRODUCTION	Complete Module 1 on D2L (due by 10:00 PM 8/31) <b>Discussion 1 Due</b>
Week 2 9/1-9/7 <b>(Labor Day Holiday 9/2)</b>	CHAPTER 1 (Fleming) An Introduction to Managerial Epidemiology  CHAPTER 2 (Fleming) Infectious Disease Epidemiology	Complete Module 2 on D2L (due by 10:00 PM 9/7) <b>Discussion 2 Due</b>
Week 3 9/8-9/14	CHAPTER 3 (Fleming) Measuring and Interpreting Morbidity  CHAPTER 1 (Hebel & McCarter) Investigation of an Epidemic  CHAPTER 2 (Hebel & McCarter) Measures of Mortality	Complete Module 3 on D2L (due by 10:00 PM 9/14) <b>Discussion 3 Due</b>
Week 4 9/15-9/21	CHAPTER 3 (Hebel & McCarter) Incidence and Prevalence  CHAPTER 4 (Hebel & McCarter) Measures of Risk	Complete Module 4 on D2L (due by 10:00 PM 9/21) <b>Discussion 4 Due</b>
Week 5 9/22-9/28	CHAPTER 5 (Hebel & McCarter) Biological Variability  CHAPTER 6 (Hebel & McCarter) Probability	Complete Module 5 on D2L (due by 10:00 PM 9/28) <b>Writing Assignment 1 Due (no discussion this module)</b>
Week 6 9/29-10/5	CHAPTER 7 (Fleming) Descriptive Epidemiology: Time, Place and Person  CHAPTER 7 (Hebel & McCarter) Screening	Complete Module 6 on D2L (due by 10:00 PM 10/5) <b>Discussion 5 Due</b>
Week 7 10/6-10/12	CHAPTER 8 (Hebel & McCarter) Sampling  CHAPTER 9 (Hebel & McCarter) Statistical Significance	Complete Module 7 on D2L (due by 10:00 PM 10/12) <b>Discussion 6 Due</b>
Week 8 10/13-10/19	CHAPTER 10 (Fleming) Statistical Tools  CHAPTER 10 (Hebel & McCarter) Correlation  CHAPTER 11 (Hebel & McCarter) Multiple regression	Complete Module 8 on D2L (due by 10:00 PM 10/19) <b>Discussion 7 Due</b>
Week 9 10/20-10/26	CHAPTER 11 (Fleming) Case-control Studies  CHAPTER 12 (Hebel & McCarter) Case-Control Studies	Complete Module 9 on D2L (due by 10:00 PM 10/26) <b>Writing Assignment 2 Due</b>
Week 10 10/27-11/2	CHAPTER 12 (Fleming) Cohort Studies	Complete Module 10 on D2L (due by 10:00 PM 11/2)

Week	Topic and Readings	Assignment
	CHAPTER 13 (Fleming) Randomized Control Trials  CHAPTER 13 (Hebel & McCarter) Cohort Studies  CHAPTER 14 (Hebel & McCarter) Randomized Control Trials	<b>Discussion 8 Due</b>
Week 11 11/3-11/9	CHAPTER 15 (Hebel & McCarter) Survival Analysis  CHAPTER 16 (Hebel & McCarter) Association and Causation	Complete Module 11 on D2L (due by 10:00 PM 11/9)  <b>Discussion 9 Due</b>
Week 12 11/10-11/16	CHAPTER 4 (Hebel & McCarter) Healthcare Planning and Needs Assessment  CHAPTER 5 (Fleming) Quality of Care Measurement	Complete Module 12 on D2L (due by 10:00 PM 11/16)  <b>Discussion 10 Due</b>
Week 13 11/17-11/23	CHAPTER 6 (Fleming) Morbidity and Risk Adjustment  CHAPTER 8 (Fleming) Epidemiology and Financial Management  CHAPTER 9 (Fleming) Cost-effectiveness Analysis  CHAPTER 14 (Fleming) Clinical Epidemiology and Decision Making	Complete Module 13 on D2L (due by 10:00 PM 11/23)  <b>Discussion 11 Due</b> <b>Writing Assignment 3 Due</b>
Week 14 11/24-11/30 <b>Thanksgiving begins 11/26</b>	<b>THANKSGIVING HOLIDAYS</b> <b>NO CLASSES</b>	<b>No Assignments</b>
Week 15 12/1-12/6 <b>Classes Resume 12/2</b>	FINAL EXAM	STUDY AND PREPARE FOR YOUR FINAL EXAM  <b>THE FINAL EXAM WILL BE OPEN 8AM TO 8PM ON DEC. 6TH.</b>

- \* The schedule is tentative. Every effort will be made to inform students about changes; however, it is the student's responsibility to know what changes have been made and complete the course requirements.
- \* Please note that the above schedule does not contain the supplemental readings and materials list. Please refer to the modules in D2L and any class communications.
- \* Holidays may be found on the Academic Calendar on the MSU Texas website.