

**SYLLABUS: HLTH 3360-01 (Fall 2017)****Course Information**

**Course:** HLTH 3360-01 - Epidemiology  
**Term:** Spring 2017  
**Meeting time:** On Line  
**Instructor:** James A. Mobley, MD, MPH, FAAFP  
**Email address:** jam187@shsu.edu  
**Office hours:** Virtual by appointment  
**Office location:** Virtual (Portland, Texas)

**Course Description**

This course is an introduction to the fundamentals of epidemiology in an online format. It is intended to familiarize undergraduate students with the basic tenets, methods, and applications of epidemiology and public health. The course will provide a history of public health, an overview of the five core disciplines of public health (Epidemiology, Biostatistics, Social and Behavioral Sciences, Environmental Health, Health Policy & Management), and will provide information about current events and issues in the field. It is designed primarily for students in the health sciences who are comfortable using online technology for self-directed learning. This course has weekly writing assignments. It is expected that you will be able to write professional presentations which are clear and concise.

**RATIONALE:** Epidemiology is the study of the distribution and determinants of health and disease in populations. *Everyone is an epidemiologist.* When you notice that 'something is going around' or that your friends all have caught 'the flu', you are practicing epidemiology. Understanding the relation between causes of disease and the actual disease is important for deciding how to respond to diseases personally and on a population level. The class will also familiarize you with professional writing. You will be presented with scenarios and writing requirements which will require you to analyze public health controversies and to respond to other students.

You will gain the necessary cognitive information through readings, media, discussion, lecture, and activities. Additionally, the course will allow you opportunity to analyze and discuss societal and policy issues. You will have a new module every week with a weekly quiz. Most weeks will also have an additional activity.

**Prerequisites**

MATH/STAT 1369, 1370, 3379

**Textbook and Resource Material****Required**

Fos PJ. *Epidemiology Foundations: The Science of Public Health*, 1<sup>st</sup> ed. Jossey-Bass, 2010.

ISBN: 978-0-470-40289-4

**Recommended**

## Course Objectives

Competency	Course Objectives By the end of the course, you should be able to:
Identify public health monitoring systems to identify and solve community health problems	<i>Describe the three levels of prevention</i> <i>List and describe major surveillance and data collection efforts in the US, including vital statistics, surveillance systems, and reportable diseases</i>
Identify appropriate methods for assessing the determinants of health problems and screening tests for identifying disease	<i>List and describe basic epidemiologic measures (rate, prevalence, incidence, etc.)</i> <i>List and describe observational and experimental study designs</i> <i>Identify and calculate appropriate measures of risk (relative risk, odds ratio, attributable risk)</i> <i>Describe measures of socioeconomic position, descriptive epidemiology, sensitivity, specificity, and reliability</i>
Be familiar with agencies that protect health and ensure safety	<i>Identify purpose and actions of US public health agencies</i> <i>Identify reliable sources of public health information</i>
Be familiar with disaster and epidemic epidemiology.	<i>Describe the process for investigating a disease outbreak</i> <i>Understand priorities and responses during epidemics and disasters.</i>
Be able to communicate with other health professionals by written material.	<i>Be able to write a grammatically correct and thoughtful professional communication including a press release and a memorandum.</i>
Prevention and Health Promotions (PHP)	<i>PHP-1. Describe the concepts (eg, case definitions, incidence versus prevalence, exposure assessment, rates) and uses of injury and illness surveillance relevant to athletic training.</i> <i>PHP-2. Identify and describe measures used to monitor injury prevention strategies (eg, injury rates and risks, relative risks, odds ratios, risk differences, numbers needed to treat/harm).</i> <i>PHP-3. Identify modifiable/non-modifiable risk factors and mechanisms for injury and illness.</i> <i>PHP-4. Explain how the effectiveness of a prevention strategy can be assessed using clinical outcomes, surveillance, or evaluation data.</i> <i>PHP-5. Explain the precautions and risk factors associated with physical activity in persons with common congenital and acquired abnormalities, disabilities, and diseases.</i> <i>PHP-6. Summarize the epidemiology data related to the risk of injury and illness associated with participation in physical activity.</i>

## Course Modules, Topics, Readings

MODULE	SUBJECT	Chapter
0	Introduction	1
1	Health Trends and Costs	2, 3, 4
2	History of Epidemiology	5, 6, 7
3	Health and Disease	8, 9, 10
4	Describing Health and Disease	11, 12, 13
5	Measuring Health and Disease	14, 15, 16
6	Study Designs	17, 18, 19, 20, 21
7	Using Epidemiological Studies	22, 23, 24
8	Epidemics	25, 26, 27
9	Epidemiology and Society	28, 29, 30
10	Screening for Disease	31, 32, 33
11	Community Public health	34, 35, 36, 37
12	Epidemiology Today	39, 40, 41
13	Disaster Epidemiology	38, 42, 43
14	Review	44, 45

See Class Schedule for Assignments and Dates.

## Grading

Mid Term Exam	200
Final Exam:	200
Weekly Quiz (13 @ 20 points)	260
Term Paper	200
Weekly Writing Assignment (4 @ 50 points)	200
Discussions (5 @ 40 points)	200
<b>Total</b>	<b>1260</b>
A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	0% - 59%

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## **MIDTERM AND FINAL EXAM (200 points each)**

The Midterm and Final Exams will be administered through ProctorFree. This is a free secure proctoring service that uses your computer to proctor your exam. It is very important to be sure that your device is compatible with ProctorFree before starting your exam. A practice exam worth 5 extra credit points is posted for you to check your device. Exam questions may be drawn from lectures and readings. Most but not all questions will be from the weekly quizzes.

Make-up exams will not be given except in extraordinary circumstances. In these cases, the instructor must be notified of the reason for absence within 24 hours. If I cannot be reached, it is your responsibility to contact the Department of Health Services and Promotion to leave a message and to provide documentation.

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## **WEEKLY QUIZZES (13 @ 20 points each)**

I will use the weekly quizzes to emphasize material that I think you should know. (HINT: that's professor speak for "look for it on the midterm exam and the final.") You will have two opportunities to take the weekly quiz. I will accept the highest grade you achieve. There will be thirteen quizzes.

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## **WEEKLY WRITING ASSIGNMENTS (4 @ 50 points each)**

Some weeks you will have a writing assignment. These are intended both to expand your knowledge of epidemiology and to give you a 'tool' that you can use in the future. For one assignment you will create a press release. For another, you will create a memorandum. Others involve graphing and analysis. For the rest of your career you will be expected to communicate clearly and concisely in writing. It is as important to know what not to write as it is to write brilliantly. All writing assignments will have a word limit. You are expected to follow that limit. I will deduct points for papers that go beyond the word limit. Use Arial, Times New Roman or Calibri Font with Font Size 10, 11 or 12. Double space. Be sure to put your name on the document.

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## **DISCUSSIONS (5 @ 40 points each)**

Some weeks I will post a topic for the class to discuss. This is intended as a start to your thinking, not to limit it. That is, take the subject wherever you feel like. I am mainly looking for your ideas about the subject. If everyone is in agreement, I will get nervous and will try to shake things up a bit. These discussions are designed to not have clear answers. I expect your writing to be grammatically correct and properly spelled and punctuated. Please create one new comment and respond to two other comments (minimum). I encourage you to bring in other references and articles. You may respond to more than two comments and I will grade the top three. In general new comments should be limited to roughly 100 words and responses to roughly 50 words.

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## **ACADEMIC SUCCESS CENTER Extra Credit (10)**

Writing clearly and concisely is very important to professionals. If you complete a counselling session with the Academic Success Center by midnight Sunday, March 4, 2018, I will award you 10 points extra credit. You will also be a better writer.

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## **TERM PAPER (Benchmarks 4 @ 10 points each, Paper 160 points – Total 200 points)**

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You will be required to submit a paper of 500-750 words. You will choose a health topic, disease or condition. You will be required to research the history of your topic, related factors, causation, populations affected, epidemiologic trends, recent research and possible interventions and treatments. There will be several deadlines for this paper designed to get you thinking about it sooner rather than later. This paper should be original work done for this class. Do not submit a paper you have used for another class. Also you will be required to review your paper with the Academic Success Center prior to submission.

### **Course Structure**

This is an online course administered entirely through Blackboard. Please be aware, however, that on-line courses require considerable time and self-discipline.

### **Attendance Policy**

Students are responsible for satisfying all academic objectives as defined by the instructor and are expected to complete all modules and assignments on time. Acceptable reasons for not completing a module on time include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, and professional conferences), military obligation, severe weather conditions, religious holidays and participation in official University activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) will be excused. Remember that, when possible (i.e. extracurricular activities, official University activities, and religious holidays), prior notification of absence is required if the student plans to be given an extension on assignments or be excused from class. Attendance is recorded whenever you log onto the course. I am required to report students who are not attending class (i.e. logging on) regularly.

### **Virtual Classroom Etiquette**

The workplace is increasingly becoming an interconnected communication system rather than a physical location. The anonymity of the computer may tempt you to write things you would not say in person. Please treat all individuals in the virtual classroom with respect at all times, including fellow students, instructors, and guests. Don't touch that [CAPS LOCK]. As you know, all caps is considered shouting in on-line circles. In the military we say that the only reason to shout at someone is if they are far away. Good advice. More advice I have found worthwhile: If I wouldn't want my mother to see it, I don't write it.

### **Academic Difficulty**

If you find that you are having trouble with assignments or material or if circumstances may be causing you difficulty please contact me right away. My goal is for each student to succeed academically and to learn skills and information that will be valuable to you in your future careers. Do not wait until your average is too low to recover. I am here to help.

### **University Policies**

On the left hand side of your Blackboard Screen, click on Syllabus & Schedule. Under this tab you will find University Policies including Academic Dishonesty, Student Absences on Religious Holy Days, Students with Disabilities and Visitors in the Classroom.

These documents represent official university policy. All students (and faculty) are expected to be familiar with and to abide by these policies. I fully support the Sam Houston State University

policies and will enforce and adhere to them.

## Sam Houston State University Policies

### Attendance and Make-up Policies

The University views class attendance as the responsibility of an individual student. In an on-line class attendance is checked whenever you log onto the course. You may work on this course whenever you like. If there are deadlines that may be missed, SHSU policies will apply. The University rules related to excused and unexcused absences are located on-line at [SHSU Attendance Policy](#)

### Other Pertinent Course Information

Every effort will be made to ensure that power point lecture files, notes, articles and assignments are available online in a timely manner. Written assignments will be delivered thru the Blackboard course website. Handouts, changes in assignments or the schedule of class modules will be announced on the Bb course webpage. E-mail contact will be initiated with all students the first week of class. If you do not have access to your assigned SHSU e-mail account, it is your responsibility to make the instructor aware of that fact so that other arrangements may be made. You are expected to use SHSU e-mail address for all official correspondence.

### Blackboard (Bb Statement)

Blackboard (Bb): This course will be supported via Blackboard, your online learning community, where you will interact with your classmates and with me. Within the course Blackboard site you will access the learning materials, tutorials, and syllabus; discuss issues; submit assignments; take quizzes; email other students and the instructor; participate in online activities; and display your projects.

In order to access the course material you will need to go to <https://shsu.blackboard.com> or look for Campus Tools on the top of the University's homepage. **Please do not contact your instructor with technical problems.** If you are having a technical problem with the course, review the support resources at <http://distance.shsu.edu/tech-support/>. You will need to possess the required computing technology to be successful in an online course. **Important!!!** Save your work as you go along. Nothing is more frustrating than to lose an assignment due to a computer hang ups! You may also want to make hard copies of your work to have "proof" and save yourself time and trouble!

### Plagiarism in a Virtual Course

Plagiarism is the leading form of academic dishonesty that the Department of Population Health has to address. You are responsible for knowing what plagiarism is and how to avoid it.

### End of Course Evaluation

Constructive feedback from students on course evaluations is taken very seriously at the Department of Population Health. I am asking for your assistance in helping the Department in its assessment of courses and faculty through your participation in the evaluation of your courses. As health professionals you will one day have the responsibility to evaluate colleagues and health initiatives. The College views providing feedback on the Department's courses as part of your professional responsibility.

### DPH Mission

The mission of the Department of Population Health is to foster student-centered learning for early and advanced health professionals; to conduct applied, evidence-based research in population health; and to improve health and wellbeing through community engagement at the local and global levels.

## **Americans with Disabilities Act (ADA)**

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. Students with disabilities that may affect adversely their work in this class should register with the SHSU Counseling Center and talk with their University supervisor and classroom mentor teachers about how they can help. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until registration with the Counseling Center is complete.

## **STUDENTS WITH DISABILITIES POLICY**

It is the policy of Sam Houston State University that no otherwise qualified individual with disabilities shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Students with disabilities may request help with academically related problems stemming from individual disabilities from their instructors, school/department chair, or by contacting the Chair of the Committee for Continuing Assistance for Disabled Students and Director of the Counseling Center, Lee Drain Annex, or by calling (936) 294-1720.

## **Academic Integrity**

According to the administration's guidelines: "All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials."

The full policy for "Code of Student Conduct and Discipline" is found at the following link:  
<https://www.shsu.edu/students/guide/dean/codeofconduct.html>

## **FERPA**

The Federal Education Rights & Privacy Act requires that we advise students that by registering for this course, their SHSU assigned e-mail address will be revealed to classmates and the instructor. By continuing your enrollment in the course you acknowledge your understanding of this policy. By enrolling in this course you agree to the following statement: "I understand that as a result of registering for this course, my SHSU/Blackboard assigned e-mail address will be revealed to classmates and the instructor."

## **Equal Opportunity Statement**

Sam Houston State University is an Equal Opportunity / Affirmative Action Institution.

## **DISCLAIMER**

This syllabus is representative of materials that will be covered in this class; it is not a contract between the student and the institution. It is subject to change. These changes will be communicated via email or posted as announcements. If you have any problems related to this course, please feel free to discuss them with the instructor.

## Title IX

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

Title IX of the Education Amendments of 1972 is a federal law that prohibits sex discrimination in education.

### NOTICE OF NON-DISCRIMINATION

Sam Houston State University complies with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act. Sexual misconduct, as defined in the University's Sexual Misconduct Policy, constitutes a form of sex discrimination prohibited by Title IX and Title VII.

### TITLE IX CONTACTS

Sex discrimination includes sexual harassment and sexual assault. While it is often thought of as a law that applies to athletics programs, Title IX is much broader than Athletics and applies to many programs at Sam Houston State University. While compliance with the law is everyone's responsibility at SHSU, below is a list of staff members that have primary responsibility for Title IX Compliance.

Title IX Coordinator--Jeanine Bias  
Associate Dean of Students --Lowman Student Center, Suite 215  
936-294-3026 or jbias@shsu.edu

## Assessment Component for BS in Public Health

### Content Knowledge and Skills—Importance of Data in Public Health (Objective 5)

#### Learning Objective Description

By completion of the BS in Public Health, all graduates will be able to describe why evidence-based approaches are important in public health and demonstrate methods and tools for public health data collection, use, and analysis.

#### a. Content Knowledge and Skills—Understanding data (Indicator a)

##### Indicator Description

HLTH 3360 Major Epi project, assessed with a traditional 100-point scale rubric (Superior >90, Proficient 70-90, Developing<70) measuring proficiency in describing types of data, its reliability and validity, its uses and limitations, interpreting data (including rates, ratios and other vital statistics), retrieving data from various sources, and using data in ethical ways.

##### Criterion Description

Using the three-level rubric, 100% of students will be at least Proficient and 50% will be Superior