

**SYLLABUS: HLTH 3360-03 Spring 2018****January 14-May 10, 2018****Course Information**

Course: 83115 HLTH 3360-02 – Epidemiology
Term: Spring 2018
Meeting time: **On-line**
Instructor: Stephen Nkansah-Amankra, PhD, MPH, MA
Email address: sexn017@shsu.edu
Office hours: Mon/Wed from 11:00 AM -3:00 pm and by appointment
Office location: 432I CHSS Building

Course Description

This course is an introduction to the fundamentals of epidemiology as a basic science of public health. It is intended to familiarize undergraduate students with the basic tenets, methods, and applications of epidemiology in public health. The course will include basic research designs, estimating outcome measures, assessing inference on cause and effect relationships and determining the effectiveness of interventions to prevent and treat disease of significant importance in human populations.

RATIONALE: Epidemiology is the study of the distribution and determinants of health and diseases in human populations. Understanding this provides the basis for describing and explaining disease occurrence in human populations and applying appropriate knowledge to develop, prioritize and evaluate public health interventions seeking to improve the health of human populations. The scope of epidemiology includes the description of disease patterns, identifying causes of disease and practical applications linked to disease surveillance and instituting control measures to prevent or eliminate diseases.

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**

1. Friis R.H. (2010). *Epidemiology 101: Essential Public Health Series*. Sudbury, MA: Jones and Bartlett Publishers, Inc. ISBN: 9780763754433
Companion website: <http://www.jbpub.com/catalog/9780763754433>
2. Calculator.

Course Objectives

By the end of the course, students will be able to:

1. Discuss the history, philosophy, and uses of epidemiology.
2. Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues.
3. List sources of epidemiologic data and estimate basic measures of morbidity, mortality and health frequency.
4. Identify *descriptive* and *analytic epidemiology studies* and describe the applications of these in understanding the health of populations.
5. Explain the relationship between concepts of *association (correlation)* and *causation*.
6. Assess *evidence-based public health* and discuss its applications.
7. Apply the applications of epidemiology to public policy development process and policy evaluation.
8. Describe applications of epidemiology in disease outbreak investigation, assessing social and behavioral phenomena, and special topics including work and the environment.

Course Modules, Topics, Readings

Course Schedule for Spring 2018

| Week | Topic | Readings | Assignment, Discussion Quizzes Submission Dates |
|-----------------|---|--|---|
| 1 01/14-20 | Course introduction & syllabus review How could you re-state the course objectives to your best understanding? | Class Syllabus Reading and Chapter | Cursory glance of chapters |
| 2 01/21-27 | Introduction to epidemiology and public health Epidemiology and Recent Epidemic | -- Chapter 1: History, Philosophy and Uses of Epidemiology | Quiz 1 Jan 25-26 (ends on 11:59 pm) |
| 3 01/28-02/3 | Historical perspectives in epidemiology The development of epidemiological methods | Chapter 2: Epidemiology & Data Presentation | Quiz 2: Jan 31-Feb 1 (ends at 11:59) Writing Assignment 1 Feb. 3-4 (ends on 11:59 pm) |
| 4 02/04-10 | Mathematics Terms used in Epidemiology Epidemiologic Measures | Chapter 3: Epidemiology and Measurements used to describe Disease Occurrence | Quiz 3: Feb 8-9 Discussion 1: Feb. 9-10 @ 11:59pm |
| 5 02/11-17 | Adjusted Rates Epidemiology and Big Data Different Data sources | Chapter 4: Data and Disease Occurrence | Quiz 4: Feb 15-16 Writing Assignment 2 Feb. 16-17 |
| 6 02/18-24 | Defining descriptive epidemiology Framework for describing descriptive epidemiology Person, Place, Time variables Conclusion | Chapter 5: Descriptive Epidemiology -- | Quiz 5: Feb 22-23 Discussion 2: Feb. 23-24 Ends on 11:59pm |

| | | | |
|-------------------------------------|--|---|--|
| 7 02/25-03/3 | Disease and causation in history | Chapter 6: Association and Causation | Quiz 6: Feb 28-March 1 |
| | Determinate and probability of causes | | |
| | Types of Associations and role of chance | | |
| | | | |
| Exam I Chapters 1-6 March 2-3, 2018 | | | |
| 8 03/04-10 | Study designs in epidemiology | Chapter 7: Analytic Epidemiology | Quiz 7: March 8-9 |
| | Ecologic studies | | Writing Assignment 3 March 9-10 |
| | Major study designs and validity | | |
| 9 | Spring Recess for students and Faculty March 12-16 | | |
| 10 03/18-24 | Role in Policy | Chapter 8: Epidemiology and the Policy Arena | Quiz 8: March 22-23 |
| | Defining health policy and core domains of public health | | Discussion 3: March 23-24 |
| | | | |
| 11 03/25-31 | | | Submission of First Draft of the Class Project March 23-24 |
| | Overview of Screening | Chapter 9: Epidemiology and screening for disease | |
| | Natural history of diseases | | Quiz 9: March 29-30 |
| | Measures used in screening | | Writing Assignment 4 March 30-31 |
| 12 04/1-7 | Describing infectious disease | Chapter 10: Infectious disease and outbreak investigation | Quiz 10: April 5-6 |
| | The epidemiologic Triangle | | Discussion 4: April 6-7 |
| | Environment and infectious | | |
| 13 04/08-14 | Defining the scope of social epidemiology | Chapter 11: Social and Behavioral Epidemiology | Quiz 11: April 12-13 |
| | Social determinants of health | | Writing Assignment 5 April 13-14 |
| | Stress and health | | |
| | Mental health and drugs | | |
| 14 04/15-21 | Molecular and genetic epidemiology | Chapter 12: Special Applications of Epidemiology | Quiz 12: April 19-20 |
| | Environmental epidemiology | | Discussion 5: April 20-21 |
| | Epidemiology and occupational health | | |
| 15 04/22-28 | | | Class Project Submission April 25-28 |
| Submission of Final Class Project | | | |
| 16 04/29-05 | Review of course materials | | |
| | Final Exam May 8-9 (Chapters 7-12) | Online | |

Writing Style: All assignments will be typed AMA style unless other instructions are provided. All written material should

be typed in no less than 10 point size on Times Roman font.

Turnitin @SHSU Blackboard: Students agree by taking this course that your paper will be submitted to Turnitin program in SHSU Blackboard for the detection of plagiarism. Early on, draft versions will be used, but the final paper will be submitted promptly on the due date.

Grading

| | |
|---|-------------------|
| Exam 1 | 200 |
| Final Exam: | 200 |
| Weekly Quiz (12 @ 20 points) | 240 |
| Term Paper | 160 |
| Writing Assignment/ 5@ 40 POINTS | 200 |
| Class Discussion (5 @ 40 points) | 200 |
| <hr/> | |
| Total | 1200 |
| A | 90% - 100% |
| B | 80% - 89% |
| C | 70% - 79% |
| D | 60% - 69% |
| F | 0% - 59% |

TWO EXAMS (200 points each)

You will have two Exams for this Spring 2018 Class and will be administered through **ProctorFree** program in Blackboard. This is a 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. Exam questions may be drawn from lectures note, Discussion Board and readings. Most but not all questions will be from the weekly quizzes.

Make-up exams will not be allowed. Make sure your Internet connectivity will allow you to complete all Exams at one sitting. You are NOT allowed to take remake exams if you logged off due to your poor internet connectivity.

The due dates for all Writing Assignments, Discussions and Quizzes are listed in the course schedule and are due at midnight Eastern Standard Time (EST) on the date listed.

WEEKLY QUIZZES (12 @ 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."). There will be fifteen quizzes.

WEEKLY WRITING ASSIGNMENTS

You will have five writing assignments to submit for grading and each is worth 40 points. You are to post these assignments on Blackboard "Turnitin" for grading. Please, do not submit these directly to me. If you submit your Writing Assignment to me (for whatever reason) I will not be able to post on Blackboard turnitin. **Please, note that you cannot submit your Writing Assignments directly to me, because I will not be able to grade the work. Remember, if you submit your work to me directly, that is equivalent to not submitting any Assignment.**

These Writing Assignments are meant to expand your knowledge of epidemiology and to apply your analytical skills. You are also expected to use all relevant materials that are helpful in writing critical responses to issues you are being asked to respond. Other assignments will involve graphing and analysis from the class activities. In all these assignments, you are expected to communicate clearly and concisely in your writing. It is as important to know what not to write as it is to write brilliantly. **All writing assignments and Class Discussions will have a word limit of 300 words.** Please, follow this limit requirements. Please, 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 before you post on Blackboard Discussion.

DISCUSSIONS

Every other week you will have specific topic posted for discussion on Blackboard Discussion. Remember, each discussion is worth 40 points and therefore you are expected to provide a more detailed analysis of issues involved. This is intended as a start to stimulate intense critical thinking on disease causation and appropriate interventions to limit spread of the disease. Please, **refer to published materials and read about the relevant sections to enable you to compose a very** thoughtful discussion paper. ***Do not write your responses without reading thoughtfully about the issues involved.*** These discussions are designed to have clear responses based on current state of knowledge of issues being discussed. I expect your writing to be grammatically correct and follow rules of English grammar. Please create one new comment and to respond to two other comments (minimum) from students on the Blackboard Discussion platform. I encourage you to bring in other references and articles. You may respond to more than two other comments and I will grade the top three. In general, your discussion posting must be at least **300-word count** and responses to other students' postings should be at least **200-word count**.

TERM PAPER – Total 160 points

You will be required to submit a paper of 5-6 pages (including references). You will choose a health topic, disease or health problem. 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. Please, see additional details on **Page 10**. Please, **‘use your owned words’** in writing the paper. **I will not accept any quoted sentence or sentences in your writing.** It is important that you completely avoid quoting directly from any source. Where those sources are very relevant or pertinent to your writing, please paraphrase those sentence(s) and cite the source(s).

Citations formatting: You must properly cite any work that is not completely your own. It is understood that you will build on the ideas of others through research, reading, and collaboration, but failure to acknowledge the scholarship of others is plagiarism and an honor code violation. In this course, we would like you to use the American Medical Association’s AMA Manual of Style (10th edition): A Guide for Authors and Editors Section 1 Part 3 for formatting references.

Course Structure

This is a Spring 2018 On-line administered course that is entirely reliant on SHSU Blackboard for all additional information, class exams, class project and quizzes.

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 through 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 discouraging than to lose an assignment due to a computer hang ups! You may want to also make hard copies of your work to have "proof" and save yourself time and trouble!

Plagiarism Virtual Course

Plagiarism is the leading form of academic dishonesty that the Department of Health Services and Promotion has to address. As a HSP student, 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 College of Health Sciences and Promotion. 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.

HSP Mission

The mission of the Department of Health Services and Promotion 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

TERM PAPER – Total 160 points (Continued from Page 6)

Epidemiology Paper (160 pts. total)

This paper is intended for you to demonstrate your analytical mind. A detailed rubric is shown below. This project will be due in parts. Paper should be double spaced in no less than 11 pt TimesRoman.

- Each student will choose a disease or health-related condition as an epidemiology study
- Review the current descriptive and analytical data information sources for that condition,
- Write a paper (5-8 pages with references) that presents that information in a logical sequence,
- Organization of your paper should include:
 - I. Your title should succinct and be descriptive enough to the reader
 - II. Introduction:
 - Introduce the topic (brief definition or description) and present it's importance to human health status
 - Explain why this condition should be studied (increasing trend, affects a large number of people, socio-economic burden among those affected, etc)
 - You might include some prevalence information here to indicate the impact
 - III. Descriptive Epidemiology:
 - Describe and/or define the disease or condition using descriptive epidemiology references
 - who tends to get this condition, where do they usually live, and at what age
 - IV. Rates:
 - Present the most current national and local prevalence and incidence rates (when available)
 - V. Causes and Risk Factors
 - Discuss the (presumed, known or theoretical) causes of this disease (if there are any)
 - Provide the currently established risk factors associated with the disease
 - VI. Conclusion
 - Summarize this condition and indicate any public health methods that may limit its impact
 - VII. Bibliography
 - Reference all statements of fact.
 - All citations should be referenced in the text and in a bibliography at the end of the paper
 - Use the American Medical Association (AMA) 10th edition (2007) Manual of Style in your bibliography.

For examples: [AMA style](#).

- Use of graphs or charts to explain relationships and describe the condition is **strongly** encouraged
- Entire paper should be submitted onto SHSU Blackboard [turnitin](#) . No exception, please.
- Due Dates:

- **Parts I-IV (20 pts) Due on March 23-24, 2018**
- **Final Paper (Entire paper DUE) – (April 25-28, 2018)**