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Fall 2017

PUBH 3231 - Epidemiology and Biostatistics

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Georgia Southern University
Jiann-Ping Hsu College of Public Health
PUBH 3231 – Epidemiology and Biostatistics
Fall 2017

<u>Instructor:</u>	Stuart H. Tedders, PhD
<u>Office:</u>	Hendricks Hall 3024
<u>Phone:</u>	(912) 478-1922
<u>E-Mail Address:</u>	stedders@georgiasouthern.edu
<u>Office Hours:</u>	By appointment
<u>Class Meets:</u>	Tuesday/Thursday 8:00-9:15am - Information Technology Building 2206

Prerequisites: PUBH 2130 or Permission of Instructor

Catalog Description: This course introduces the student to the principles and practice of epidemiology and biostatistics. Students will be exposed to the historical development of epidemiology, concepts of causality, definitions of health and disease, and sources of community health data. Current principles and practices in the cause, prevention and control of diseases in various community settings will be emphasized.

Required Textbooks:

Merrill (2017). Introduction to Epidemiology (7th Edition). Jones and Bartlett Publishers: Sudbury, MA. ISBN 978-1-284-09435-0

Additional Required Resources:

Non-Programmable Calculator, preferably up to 10 digits

B.S.P.H. Health Promotion Student Learning Outcomes:

1. Identify and assess public health problems to develop appropriate public health education programs based on sound theoretical foundations of health behavior.
2. Design, implement and evaluate public health educational programs for identified health problems for at-risk populations and communities.
3. Analyze evidence-based and innovative best practices of healthy behaviors to appropriate audiences.
4. Demonstrate argumentation, analysis, and synthesis skills writing through the development of comprehensive health promotion program plans and materials.
5. Apply the basic methodology and research design, data collection and data analysis for identification of health trends and public health problems.

Course Learning Objectives:

1. The student will be able to identify the basic concepts and principles of epidemiology and vital statistics.

2. The student will be able to apply epidemiological concepts to diverse health problems and in various health settings.
3. The student will be able to understand the basic components of collecting, organizing, interpreting, and summarizing vital statistics.
4. The student will be able to operate within the information superhighway in order to obtain and utilize current epidemiological health data.
5. The student will be able to review disease and epidemiological cases in order to solve current, relevant epidemiological case study problems.

Instructional Methods:

Information will be presented in the classroom, through the required readings, and through various assignments. Class meetings will be a combination of lecture, class discussion, and group activities. The instructor will attempt to cover all of the assigned readings; however, failure to cover assigned readings does not alleviate the student's responsibility of knowing the material. Furthermore, students are responsible for all miscellaneous information discussed during the assigned class periods. If you miss a class, you are responsible to find a fellow classmate to get all notes and materials missed.

<u>Grading:</u>	<i>Assignments</i>	<i>Points</i>
	Exams (3) @ 100 points each	300
	Final Exam @ 100 points	100
	Quizzes 10 @10 pts each	100
	Case Study 4 @ 25 points each	<u>100</u>
	Total	600

<i>Point Scale</i>	<i>Percent</i>	<i>Grade</i>
540 - 600 pts	90 - 100%	A
480 - 539 pts	80 - 89%	B
420 - 479 pts	70 - 79%	C
360 - 419 pts	60 - 69%	D
359 - 0 pts	00 - 59%	F

Assignments:

1. Exams: There will be three exams, each worth 100 points. Exams may be any combination of true/false, multiple choice, matching, short answer, calculations & discussion. (300 pts total).
2. Final Exam: The final exam will be administered on Thursday, December 7, 2017 from 7:30 – 9:30am. This exam may be any combination of true/false, multiple choice, matching, short answer, computations, & discussion. (100 points total).
3. Quizzes: Although twelve (12) quizzes will be given over the course of the semester, only ten (10) quizzes will be counted. The two lowest quiz grades will be dropped, so make-up quizzes will not be administered. Quizzes will account for 10 points each (100 total points).

Note: Quizzes are designed to encourage you to read the chapters in the required textbook, so they will be administered prior to covering content for a specific chapter.

4. Case Studies. Four (4) case studies will be given over the course of the semester. The case studies are worth 25 points each. Case study days are announced in this syllabus. A case study submission includes an overview (summary) of the case, specific questions related to the case (in text) and answers to each question (100 total points).
5. Attendance. Attendance is strongly encouraged. Missed assignments, quizzes, and exams cannot be made up unless the absence is deemed excused by the instructor. **You are responsible** for missed content, announcements, due dates, homework assignments, date changes, etc when you miss a class. Please contact a fellow student who was in attendance that day.
6. Class Participation: Participation and student engagement will be assessed every class period. **Participation and attendance ARE NOT the same thing, so participation DOES NOT simply mean being in class.** Participation and student engagement represents a combination of activities including, but not limited to, active listening, asking questions, sharing experiences, discussing topics, and completing in-class assignments/activities. Discussions, assignments, and other activities are random, so these instances **ARE NOT** outlined on the course schedule. **Student's failing to participate in class WILL NOT be penalized. However, class participation WILL increase your total points earned during the semester.**

Course Policies:

1. Exams are the property of the professor, any exams removed from the classroom by students will result in the score of a "0" be assigned for that exam, and an "F" for the entire course. All exams are multiple choice, true/false, fill-in-the-blank, matching, essays, and computations.
2. No make up tests are given except for **a university excused absence with full documentation**. If you miss a test, you have one week to make the exam up. All make-up exams will be discussion and computation based. If it is not made up **within one week**, you will receive 0 points for the exam. **You have 24 hours** after a test is taken by the class to contact me via email to schedule your make-up exam or a 0 will be assigned to the test.
3. The final exam is mandatory and will be given during finals week. Early final exams will not be given. If this scheduled time is a problem, please consider dropping this course.
4. **All out of class assignments** must be typed. The exception would be if significant calculations are involved.
5. All assignments must be given to the professor or the professor's teaching assistant directly or submitted online, unless otherwise directed. Assignments should not be given to the Office secretary, slipped under my office door, left in my mailbox, etc.
6. Late work assignments are not accepted.

7. Please consult the STUDENT CONDUCT CODE 2017-18 for course policy concerning issues related to academic dishonesty. Anyone caught violating any of these regulations will be immediately reported to GSU's Judicial Board, and be assigned an "F" for the course.
8. Last day to withdraw from class without academic penalty is October 9, 2017. Students who stop attending class without officially withdrawing from the class will receive a final grade of "F".
9. Samples of your work may or may not be reproduced for research purposes and/or inclusion in the professor's teaching portfolio. You have a right to review anything selected for use, and subsequently ask for its removal.
10. By enrolling in this course, it is understood that students have read the syllabus, understand the rules and policies as stated, and will abide by them.
11. This syllabus, my lectures, and all materials distributed and presented by me during this course are protected by copyright law. You are authorized to take notes in this class but that authorization extends only to making one set of notes for your personal use and no other use. You are not authorized to sell, license, commercially publish, distribute, transmit, display, or record notes from this class unless you have my written consent to do so.
12. If you are receiving services from the Student Disability Resource Center (SDRC) please come and see me, as soon as possible, to schedule an appointment to present me with an accommodation letter.
13. Lecture outlines are uploaded to Folio. You are responsible for downloading these outlines BEFORE you come into class. **Please regularly check Folio for any messages that I might have for you.**
14. Students are expected to have a calculator during all class periods. The instructor will not provide calculators during class or exam periods. **Sharing calculators is not permitted during an exam.**
15. During testing periods, students are only allowed to bring a pencil/pen and non-programmable calculator to the seating area. Book bags and cell phones (turned off) must be left in the front of the classroom.
16. If you need to contact me, please use the stedders@georgiasouthern.edu email address or the email message services on Folio. Please give me 48 hours to respond to emails. To write a **professional** email, please include the following: a salutation, identify who you are, what the contact is in reference too (i.e. PUBH 3231), and what you would like me to do. At the bottom of the email, please type out your name.
17. Cell phone policy: Cell phones are expected to be silenced and put away (in your purse or book bag) at all times during all class periods.

18. Open Door/ Closed Door Office Policy: My door is always opened, unless it is closed. Most of the time, when I am in my office, my door is open. Please feel free to come in and visit any time when the door is open. When my office door is closed, it means that I am not there or I am working on something and can't be disturbed. Please respect this and don't knock unless it is a dire emergency.

My Commitment to You:

As a student in my class, you are important to me. I am committed to your continued learning and college experience. You are never an interruption of my work. You are the purpose of it. Students are the most important people at Georgia Southern University. I am honored that you entrust your education to me. Please feel free to visit my office, call, fax or e-mail me at anytime.

Professional Dispositions:

BSPH are expected to graduate the program with competent professional skills. Professional skills and dispositions are also expected while completing the internship experience. As a student in this course, you are expected to exhibit professionalism at all times. The following is a list of skills BSPH majors are expected to demonstrate:

- Written communication skills: Student uses appropriate professional title, grammar, structure, punctuation, spelling, tone, etc.
- Email and other media communication: Student uses appropriate professional title, grammar, structure, punctuation, tone, etc. To write a professional email, please include the following:
 - ☐ a salutation,
 - ☐ identify who you are,
 - ☐ what the contact is in reference to (i.e. PUBH 3231), and
 - ☐ what you would like me to do.

At the bottom of the email, please type out your name.

- Oral and non-verbal communication skills:
 - In interpersonal communication, student uses or maintains appropriate tone, language, attitude, interpersonal space, etc.
 - In public speaking, student uses or displays appropriate volume, speed, enunciation, eye contact, structure, etc.
- Organization: Student keeps track of assignments and materials, is prepared for presentations, etc.
- Initiative: Student can begin tasks and work independently, initiate tasks/projects, etc.
- Reliability: Student is punctual, completes assignments, meets deadlines, and is prepared for class etc.
- Collegiality: Student exhibits appropriate exhibits appropriate, positive, helpful interactions with others
- Collaboration: Student collaborates with others on tasks or projects accepts others' suggestions and criticisms, participates in and provides constructive inputs to discussion and debate, etc.
- Judgment: Student considers options and their implications when making decisions, does not act impulsively, etc.
- Respectful: Student respects confidentiality, treats others with respect, etc.

- Self-Presentation: Student is well groomed, dressed appropriately, well rested, etc.
- Interpersonal interactions: Students will practice civility when interacting with faculty and fellow students; in cases of disagreement or conflict, students will make every effort to resolve such matters in a respectful manner with a goal towards mutual resolution.

If a student fails to comply with the list of professional skills, the faculty will provide the student a warning for the first offense. If failure to improve behavior or to make progress in the relevant skills, the faculty member will immediately report the student to the University Student Conduct Board for violating the Student Code of Conduct.

Course Etiquette

E-mail and Folio

E-mail is an official means of communication from the University. It is your responsibility to check your Georgia Southern e-mail addresses regularly and to open and read e-mails your professors and the University send.

If you need to contact me, please use the stedders@georgiasouthern.edu email address or you may use the email message services on Folio. University Policy on faculty and staff email response time is 48 hours – which does not include weekends. I will usually respond to you sooner than that! I usually do not read emails after 5:00pm.

To write a **professional** email, follow the instructions under Professional Disposition section.

Some assignments are posted to Folio. I expect you to seek help for any issues you may have with Folio through the Center for Academic Technology Support (912-478-2287). Except in cases where I can verify systematic problems with Folio, I will not accept technical problems as an excuse for late work. It is my recommendation is to use Firefox or Chrome for work in Folio, although most other updated browsers will work.

Creating a Positive Environment for Learning:

Civility Statement for PUBH 3231:

Your individual success is my priority. I feel my job is to shape you both intellectually and professionally. Because this class needs to be participatory and students need to fulfill their potential for learning, people who disrupt this classroom environment by their words or actions disrupt this process. Talking out of turn, rude, sarcastic, obscene, or disrespectful speech and disruptive behavior have a negative impact on everyone's learning. When a person disrupts the class in these ways, the course instructor will ask the disruptive person to leave the class and meet with the student one-on-one prior to the next classroom meeting. *(Adapted from Department of Communication Arts, Language and Literature, WSC, Gunnison, CO)*

Georgia Southern Student Handbook (p.5.) defines “(6) “Classroom Disruption” as “any classroom behavior that interferes with the instructor’s ability to conduct class or the ability of other students to learn”. Respect requires that when one person is talking, others remains quiet and listen. Cross-talking is disruptive. In this class, there will be times when I will need to talk while everyone listens or remains quiet, you will get opportunities to share and we will remain quiet and listening, and we will group share. Let’s see how we can help each other with this.

Coping with Disruptive Students

Do Not Fight a Battle

- Accept that dealing with disruptive students is no fun
- Assume student doesn't know how much behavior impacts you/class
- Have a vision of success for the student

Then . . .

- Make an appointment with student
- Explain how his/her actions affects you/class
- Listen actively to his/her point-of-view
- Jointly look for ways to prevent problem from happening again
- Offer help—prearranged signal or referral
- **File a report with the [Dean of Student](#)**

Kerry Greenstein

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Academic Integrity

It is important for your future to understand that instructors at Georgia Southern treat cases of academic dishonesty seriously; these include plagiarism, self-plagiarism, and cheating on tests, quizzes and assignments. Violations of the Honor Code will be reported to the Dean of Students Office. Please know that these violations can be made by any person and can be made anonymously. Please understand at that we will treat cases of academic dishonesty seriously. If you ever have questions about what is permissible, ask me in advance.

Be aware of the Georgia Southern Honor Code and Honor Pledge:

"I will be academically honest in all of my course work and will not tolerate the academic dishonesty of others."

The Georgia Southern University Honor Code was proposed and jointly adopted by the Student Government Association and the Faculty Senate in 1998 to enhance the University's academic integrity standards.

"On my honor, I will be academically honest in all of my course work and will not tolerate the academic dishonesty of others. I also pledge to engage in ethical behavior on-campus and off-campus, to live an honorable lifestyle, and to create a campus environment that is characterized by individual responsibility, civility, and integrity."

(Georgia Southern University Campus Honor Pledge, an expansion of the Honor Code, approved by the Student Government Association in Spring 2014).

What is ACADEMIC DISHONESTY ? (As defined by the Georgia Southern Student Handbook):

Cheating-	collaborating with others on assignments without the faculty's consent
Cheating-	cooperating with and/or helping another student to cheat
Cheating-	demonstrating any other forms of dishonest behavior
Cheating-	fabricating information, research, and/or results
Cheating-	obtaining and/or using unauthorized materials
Cheating-	submitting material that is not yours as part of your course performance
Cheating-	using information or devices that are not allowed by the faculty

Cheating-	violating procedures prescribed to protect the integrity of an assignment, test, or other Classroom Copyright Infringement
Plagiarism-	directly quoting the words of others without using quotation marks or indented format
Plagiarism-	paraphrasing materials or ideas without identifying the source
Plagiarism-	purchase and/or use of unauthorized material
Plagiarism-	using sources of information (published or unpublished) without identifying them

New to the Student Conduct Code:

Student Code of Conduct specifically prohibits "**self-plagiarism**" defined as "resubmitting work previously submitted without explicit approval from the instructor."

Originality Checker

All assignments that I post to Folio are graded with "originality checker". This checker is a software device in Folio that tells me what percentile of your work is copied from others – it could be a paper you have turned in for a different class, verbatim that you copied off of internet sources without proper citation or words that you have copied (or "collaborated" with) from another student within the university system. Please make sure that everything you submit is your original thoughts, ideas and expressions. ANY paper that has 55% or more listed by the originality checker – gets an automatic "0" points and I will not grade it. Repeated instances will be reported to Georgia Southern University's Judicial Board.

Academic Misconduct

As members of the campus community, students are encouraged to actively support academic honesty and integrity in both the classroom and on-line.

Academic misconduct will be dealt with according to Georgia Southern University policy. Students are encouraged to read and be familiar with such policies. These policies can be found in the *GSU Student Code of Conduct Policies and Procedures, 2015-2016*.

Policies and Procedures:

- *Georgia Southern University is an Equal Opportunity and Affirmative Action institution committed to providing reasonable accommodations for any person with a disability who meets the definition of disabled as described in the Americans with Disabilities Act. Students requiring academic accommodation should contact the Director of the Student Disability Resource Center for assistance at (912) 478-1566 or TDD: 478-0666*

Special Needs: If you have a special need (a physical or learning disability) that requires special assistance, please let me know as soon as possible, and in no case later than the second week of classes. I'll work with the SDRC (Student Disability Resource Center) to meet your needs.

PUBH 3231: Epidemiology and Biostatistics

Tentative Course Schedule*

Spring Fall 2017

Dates	Topic/Assignment	Readings
Week 1	8/15 Syllabus Overview, Introductions, Expectations	
	8/17 Quiz 1 (TBD) Lecture: Foundations of Epidemiology	Chapter 1
Week 2	8/22 Quiz 2 (Chapter 2) Lecture: Historic Developments in Epidemiology	Chapter 2
	8/24 Lecture, Etc.	
Week 3	8/29 Quiz 3 (Chapter 3) Lecture: Practical Concepts in Epidemiology	Chapter 3
	8/31 Wrap Up & Review	
Week 4	9/5 Exam #1: Chapter 1, 2, & 3 9/7 Quiz 4 (Chapter 4) Lecture: Design Strategies and Statistical Methods in Descriptive Epidemiology	Chapter 4
Week 5	9/12 Quiz 5 (Chapter 5) Lecture: Descriptive Epidemiology According to Person, Place and Time	Chapter 5
	9/14 Lecture, Etc.	
Week 6	9/19 Quiz 6 (Chapter 6) Lecture: General Health and Population Indicators	Chapter 6
	9/21 Lecture, Etc.	
Week 7	9/26 Quiz 7 (Chapter 7) Lecture: Design Strategies and Statistical Methods in Analytic Epidemiology	Chapter 7
	9/28 Wrap Up & Review	
Week 8	10/3 Exam #2 Chapters 4, 5, 6, & 7 10/5 Quiz 8 (Chapter 8) Lecture: Experimental Studies in Epidemiology	Chapter 8
Week 9	10/10 Quiz 9 (Chapter 9) Lecture: Causality	Chapter 9
	10/12 Quiz 10 (Chapter 10) Lecture: Field Epidemiology	Chapter 10
Week 10	10/17 Quiz 11 (Chapter 11) Lecture: Chronic Disease Epidemiology	Chapter 11
	10/19 Lecture, Etc.	
Week 11	10/24 Quiz 12 (Chapter 12) Lecture: Clinical Epidemiology	Chapter 12
	10/26 Lecture, Etc.	

Week 12	10/31	Wrap Up & Review
	11/2	Exam #3 Chapters 8, 9, 10, 11, & 12
Week 13	11/7	APHA – No Class
	11/9	Case Studies
Week 14	11/14	Case Studies
	11/16	Case Studies
Week 15	11/21	Thanksgiving Break
	11/23	Thanksgiving Break
Week 16	11/28	Case Studies
	11/30	Case Studies
Week 17	12/7	7:30-9:30am Final Exam

*This syllabus, including the calendar, is subject to modification if time constraints, student needs, or instructor needs warrant changes. It is your responsibility to remain apprised of any changes to the syllabus and to successfully complete the requirements of this course.

Name: _____

PUBH 3231: Epidemiology and Vital Statistics
Grading Sheet
Fall Semester 2017

Assignment	Possible Points	Points Earned
Exam #1	100	_____
Exam #2	100	_____
Exam #3	100	_____
Final Exam	100	_____
Quizzes (100 points)		
Quiz #1	10	_____
Quiz #2	10	_____
Quiz # 3	10	_____
Quiz # 4	10	_____
Quiz # 5	10	_____
Quiz # 6	10	_____
Quiz # 7	10	_____
Quiz # 8	10	_____
Quiz # 9	10	_____
Quiz # 10	10	_____
Case Studies (80 points)		
Case Study #1	25	_____
Case Study #2	25	_____
Case Study #3	25	_____
Case Study #4	25	_____
TOTAL POINTS:	600	_____

<i>Point Scale</i>	<i>Percent</i>	<i>Grade</i>
540 - 600 pts	90 - 100%	A
480 - 539 pts	80 - 89%	B
420 - 479 pts	70 - 79%	C
360 - 419 pts	60 - 69%	D
359 - 0 pts	00 - 59%	F