

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

American Public University System

The Ultimate Advantage is an Educated Mind

School of Health Sciences
PBHE607
Epidemiology
3 Credit Hours
Length of Course: 8 weeks
Prerequisite:

Instructor Information

Please refer to the Syllabus tab for your instructor's contact information and biography.

Course Description (Catalog)

This course provides a graduate level study of epidemiologic concepts and approaches to population problems in public health. It covers a wide spectrum of topics, to include outbreak investigation, test properties, and study design. The course will provide understanding of disease and disease transmission, rates and proportions associated with different forms of outbreak, and epidemiological risk management methods and measures.

Course Scope

The student will learn what epidemiology is, how it is conducted and what the results of studies can show – and not show. The full treatment of how a scientific study will be explained. The content is rich with all the possible shortcomings that will make a study a “valid” study, and therefore acceptable. The student will also learn the different major types of epidemiology: infectious diseases; work and the environment; molecular and genetic; psychological, behavioral and social. In addition, the student will learn the principles of applying epidemiology to evaluation and policy.

Course Learning Objectives

After successfully completing this course, students will be able to:

- Describe the practical applications of epidemiology

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

- Appraise morbidity and mortality data
- Analyze online sources of epidemiologic data
- Implement epidemiologic study designs
- Demonstrate effective interpretation of epidemiologic data
- Evaluate a public health problem using the descriptive epidemiologic approach
- Examine the application of epidemiology to screening, infectious disease prevention, and policy

Course Delivery Method

This course delivered via distance learning will enable students to complete academic work in a flexible manner, completely online. Course materials and access to an online learning management system will be made available to each student. Online assignments are due weekly as noted on the course outline and can include Forum questions, exams, and written assignments. Assigned faculty will support the students throughout this eight-week course.

Course Materials

Required Course Textbook:

Friis, Robert H., and Thomas A. Sellers. (2014) *Epidemiology for public health practice, 5th ed.* Sudbury, MA: Jones and Bartlett Publishers.

Academic Writing Requirements:

The School of Health Sciences requires use of APA format and style and all students are encouraged to have a current copy of the *APA Publication Manual*. All written assignments are to be submitted in APA format style unless otherwise noted in the assignment directions.

Web Sites

In addition to the required course texts, the following public domain web sites are useful. Please abide by the university's academic honesty policy when using Internet sources as well. Note web site addresses are subject to change.

- none

Evaluation Procedures

Forum

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

Please join the forums each week. Replies must be posted in the week due and replies after the end of the each week will not be graded. The Forums are for student interaction and input should be submitted before the week ends in order to fully participate in the discussions. Students should demonstrate their own knowledge in the forums and avoid copying and pasting from websites.

Guidelines:

- Post the initial response to each forum by 11:55pm, ET, Wednesday.
- Initial responses should be no less than 450 words.
- Initial responses are to be original in content and demonstrate a thorough analysis of the topic.
- Reply to at least 2 of your classmates in each forum by 11:55pm, ET, Sunday.
- Replies to classmates should be no less than 200 words.
- Responses to classmates are significant to advance the forum.
- All forums can be accessed in the Forums section of the course.
- Forum rubric is included in the forum section of the course
- Additional guidelines for week one forum introduction are included in the forum tab within the course
- More in-depth specific instructions for each forum can be found in the forum tab within the course.
- **Late Forum posts receive a 10% per day late penalty. If your 2 peer responses are posted after the week is ended (after Day 7, Sunday) they receive a zero, in that the discussion is over and you cannot receive credit for participation in a discussion with others after the discussion week has closed.**

Students will be responsible for providing a peer response posting for at least two (2) of their peers' postings, unless there are less than 3 students in the course, where only one (1) peer posting will be required. Your peer postings should challenge or expound upon at least one of the points made by your peer, and "I agree" does not constitute as an adequate response. As graduate students, you will be expected to provide comprehensive, relevant and well supported points in your assignments.

We all bring something unique to the classroom, from our understanding, our experiences, and our value systems. We honor and respect each person's diverse beliefs to help us see beyond the classroom to be the most effective individuals we can be. Therefore, we should all be respectful of others while expressing our viewpoints and opinions. Proper netiquette behavior is expected. Any inflammatory, demeaning or disrespectful language in a posting will be immediately removed from the discussion space.

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

Assignments

There will be three (3) assignments due every other week throughout the course. These assignments will be on a specific topic in epidemiology and will require you to apply your knowledge gained in the week's lesson. Assignments are due by Sunday at 11:55 PM EST every other week (weeks 1,3,5). Please see the Assignment tab for complete directions and the grading rubric for these assignments.

Research Paper

To assess your scholarly writing, research skills, and epidemiologic knowledge, you will complete an epidemiologic writing Assignment. Review the Assignment Link for detailed Research Paper Instructions. **Email your instructor with your paper topic by week 3 for approval. A completed paper is due by Day 7 of Week 7.**

Your Assignments will be graded in accordance with the **APUS 500-600 rubric**. Assignments will be reviewed through Turnitin.com. If you submit a paper that is either missing citations, is not properly paraphrased (i.e. you have a high amount of matching text from external sources per Turnitin) or has numerous direct quotes, you may be asked to re-write the assignment, will have major points deducted, or you may receive a zero on the assignment. Review your Student Handbook section on Academic Integrity and Plagiarism. ***Do not use a paper or parts of a paper you completed for another course to complete this assignment.***

*PLAGIARISM: Your paper will go through TurnItIn, a plagiarism software. If you receive a high score in TurnItIn, it is likely that you have committed plagiarism whether intentional or not. Review this website to insure you do not commit plagiarism: <http://www.plagiarism.org/>

- More in-depth specific instructions for each assignment can be found in the Assignment tab within the course.
- **Assignments submitted late without advance notice will receive a 5% per day late penalty and will not be accepted for grading five (5) days past the due date.**

Exams

You will be required to submit four (4) Examinations. The exams are open book, untimed exams. You must complete the exams by the specified due dates. The exams are NOT cumulative. Exam 1 covers chapters 1-4, Exam 2 chapters 5-8, Exam 3 chapters 9-12, and Exam 4 chapters 13-16. All exams must be completed on or before the due date which is Sunday every other week (weeks 2,4,6,8). You will find the Exams in the Tests & Quizzes section of the classroom. You are allowed only one (1) submission so please only submit when you have completed the exam.

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

Readings, assignments, and classroom participation:

This course requires a time management plan and the self-discipline to follow it. You are expected to complete assignments on time, complete all readings, and make inquiries as needed to complete the course effectively. This is an eight-week course, which means the material must be learned in a short period of time. This requires dedication and diligence on the part of each student.

- More in-depth specific instructions for each assignment can be found in the Assignment tab within the course.
- **Assignments submitted late without advance notice will receive a 5% per day late penalty and will not be accepted for grading five (5) days past the due date.**

Course Grading Outline

Grading Instrument		Percentage of Final Grade
Forum (8 @ 100 pts each)	800 pts	25%
Introductory Forum Post	10 pts	
Exams (4 @ 100 pts each)	400 pts	35%
Assignments		20%
Biweekly Assignments (3 @ 100 pts each)	300 pts	
Final Research Paper	100 pts	20%
TOTAL	1610 pts	100%

Course Outline					
Lesson	Topic	Learning Objective(s)	Reading(s)	Assignment(s)	Forum(s)
1	Introduction The History and Scope of Epidemiology Practical Applications of	Deconstruct epidemiology and the components of epidemiology Organize the components of the epidemiologic	Friis: Chapters 1 & 2	Week 1 Assignment	Week 1 Forums: -Introduction - Practical Applications

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

	Epidemiology	<p>approach</p> <p>Demonstrate uses and applications of epidemiology including clinical applications</p> <p>Examine causal mechanisms from the epidemiological perspective</p>			
Lesson	Topic	Learning Objective(s)	Reading(s)	Assignment(s)	Forum(s)
2	<p>Measures of Morbidity and Mortality Used in Epidemiology</p> <p>Descriptive Epidemiology: Person, Place, Time</p>	<p>Discriminate between ratios, proportions, and rates</p> <p>Compute rates and discuss limitations and ways to adjust rates</p> <p>Analyze descriptive epidemiology and its primary objectives and the main subtypes of studies</p> <p>Examine analytic epidemiology and the difference between secular trends and cohort</p>	Friis: Chapters 3 & 4	Week 2 Assignment: Exam #1	Week 2 Forum: -Descriptive Epidemiology

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

Lesson	Topic	Learning Objective(s)	Reading(s)	Assignment(s)	Forum(s)
3	Sources of Data for Use in Epidemiology Study Designs: Ecological, Cross-sectional, Case-Control	effects Assess the sources of epidemiological data and their uses, strengths, and weaknesses of the sources Appraise privacy and confidentiality issues when using data Differentiate the different types of study designs and their characteristics including advantages and disadvantages Compute and interpret an odds ratio	Friis: Chapters 5 & 6	Week 3 Assignment <i>Submit topic for research paper to instructor for approval via messages in classroom</i>	Week 3 Forum: - Sources of Epidemiological Data
Lesson	Topic	Course Objective(s)	Reading(s)	Assignment(s)	Forum(s)
4	Study Designs: Cohort Studies Experimental Study Designs	Examine cohort studies including their main characteristics, advantages and disadvantages Calculate and interpret relative risk Compare and	Friis: Chapters 7 & 8	Week 4 Assignment: Exam #2	Week 4 Forum: -Study Designs

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

		contrast different types of experimental studies			
		Interpret ethical aspects of clinical studies and the phases and controls found in clinical trials			
Lesson	Topic	Course Objective(s)	Reading(s)	Assignment(s)	Forum(s)
5	Measures of Effect Data Interpretation Issues	Examine the role of statistical test in epidemiologic research Apply Hill's criteria for evaluating epidemiological associations Distinguish between random and systematic errors Evaluate bias and confounding factors and ways to minimize them	Friis: Chapters 9 & 10	Week 5 Assignment	Week 5 Forum: - Correlation vs. Causation
Lesson	Topic	Course Objective(s)	Reading(s)	Assignment(s)	Forum(s)
6	Screening for Disease in the Community Epidemiology of Infectious Disease	Differentiate between reliability and validity Compute calculations for sensitivity and specificity for	Friis: Chapters 11 & 12	Week 6 Assignment: Exam #3	Week 6 Forum: -Infectious Disease Outbreak

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

		<p>screening tests and interpret the results</p> <p>Examine categories of infectious disease and modes of transmission</p> <p>Evaluate the quantitative terms and the procedures used in infectious disease outbreaks</p>			
Lesson	Topic	Course Objective(s)	Reading(s)	Assignment(s)	Forum(s)
7	<p>Epidemiologic Aspects of Work and the Environment</p> <p>Molecular and Genetic Epidemiology</p>	<p>Deconstruct environmental epidemiology and discuss study designs and possible agents of disease</p> <p>Evaluate methodologies on environmental epidemiology for difficulties and ways to relate exposure with health outcome</p> <p>Distinguish between molecular and genetic epidemiology</p>	Friis: Chapter 13 & 14	<p>Week 7 Assignment: - Research Paper</p>	<p>Week 7 Forum: -Genetic Screening/Gene-Environment Interactions</p>

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

		Apply different epidemiological approaches to the identification of genetic components of disease			
Lesson	Topic	Course Objective(s)	Reading(s)	Assignment(s)	Forum(s)
8	Psychologic, Behavioral, and Social Epidemiology Epidemiology as a Profession	Deconstruct the roles of psychological, behavioral, and social factors in health and disease Analyze the stress-illness relationship Plan and prepare for a career in epidemiology Evaluate competencies needed in the field of epidemiology	Friis: Chapter 15 & 16	Week 8 Assignment: Exam #4	Week 8 Forum: - Social Context of Health -Course Reflections (optional)

Policies

Please see the [Student Handbook](#) to reference all University policies. Quick links to frequently asked question about policies are listed below.

[Drop/Withdrawal Policy](#)

[Plagiarism Policy](#)

[Extension Process and Policy](#)

[Disability Accommodations](#)

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.