

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

PBHE427

Epidemiology

Credit Hours: 3

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 an introduction to 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.

Note to Students: The course materials, assignments, learning outcomes, and expectations in this upper level undergraduate course assume that the student has completed all lower level general education and career planning coursework necessary to develop research, writing, and critical thinking skills. Students who have not fulfilled all general education requirements through courses or awarded transfer credit should strongly consider completing these requirements prior to registering for this course.

Course Scope

This course is 8 weeks in length and is divided into 8 separate modules. The assignments will include: readings from the course text, interesting articles, specific materials to explain the course texts (all available in the Lessons section of the classroom).

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.

The student will learn how a scientific research design is created, which types of designs are used to solve various identification of disease problems, as well as some practical information on how to get funding for a study as well as getting it published. In addition, the student will learn various formulas used in the expression of the essential terms in morbidity and mortality. Key will be the use of formulas to make the required measurements in epidemiology, but the student will not be burdened with learning any math, other than very simple algebra. These numbers will mostly be used in the discussion and illustration of statistical probability. The student will learn how and why early intervention is critical in control of disease, as well as how screening (including genetic screening) is becoming more important in the early detection and treatment of disease. Last the connection between epidemiology and the public health system will be explored, with some focus on the politics involved.

Course Learning Objectives

Upon successful completion of this course, the student will be able to:

1. Analyze epidemiology and its present-day applications
2. Compare and contrast morbidity and mortality and how each is measured;
3. Differentiate between descriptive and analytic epidemiology;
4. Explain the sources of data used in epidemiology;
5. Demonstrate an epidemiologic study design
6. Explain the measurement and interpretation of an intervention;
7. Describe the screening process for infectious diseases;
8. Epidemiologically analyze work and the environment;
9. Differentiate among the characteristics of molecular, genetic, psychological, and behavioral epidemiology.

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

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.

weekly as noted in the course outline and can include Forum questions, written assignments, and exams. Assigned faculty will support the students throughout this eight-week course.

Course Materials

Required Course Textbook:

Fos, P. J. (2011). *Epidemiology foundations: The science of public health*. San Francisco, CA: Jossey-Bass.

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.

- See Lessons

Evaluation Procedures

Forum

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 200-300 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 100 words.
- Responses to classmates are significant to advance the 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.

- All forums can be accessed in the Forums section of the course.

Assignments

Movie Project: Students will be required to watch a movie and write a paper discussing the disease in the movie. Papers must be a minimum of two (2) pages long not including references. Follow APA format for writing a paper (title page and abstract are not necessary but a title on the paper should be included).

See these websites for help with APA format:

<https://owl.english.purdue.edu/owl/resource/560/01/> and <http://www.apastyle.org/learn/index.aspx>.

Please see the Assignment tab for assignment details and grading rubric. ***The movie project is due Sunday of Week 5.***

Research Paper: Students will be required to complete a 7-10 page final paper for this course. The final paper will require the student to select an infectious or chronic disease and provide a brief history and overview of this topic and how it is currently impacting public health today. Since topics may vary, formatting will as well. Please see the Assignment tab for detailed instructions. All papers will require an abstract (no more than 150 words), and referencing/citations (you must reference at least 5 scholarly sources in your paper) in proper APA format (these items will not be included in required page total). Any graphs or charts provided must be included in an appendix (these items will not be included in required page total). ***Your selected topic must be approved by the instructor (via messaging) by the end of Week 4. Your paper will be due by the end of Week 7.***

***PLAGIARISM:** Your papers will go through TurnItIn 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/>. You may rewrite and resubmit but it must be resubmitted before the due date.

Quizzes

There will be six (6) quizzes for this course. Each quiz consists of ten (10) multiple choice questions on material covered in your text and supplemental readings. The quizzes are untimed but are due by Sunday of the week they are assigned. You will find the quizzes in the Tests & Quizzes section of the classroom. You are allowed only one (1) submission so please only submit when you have completed the quiz.

Course Grading Outline

Grading Instrument	Percentage of Final Grade
Forum (8 @ 100 pts each)	25%

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.

Introductory Forum Post	10 pts	
Quizzes (6 @ 10 pts each)	60 pts	30%
Assignments		45%
Movie Project	100 pts	
Research Paper	200 pts	
TOTAL	1170 pts	100%

Course Outline

Lesson	Topic	Learning Objective(s)	Reading(s)	Assignment(s)	Forum(s)
1	Why Epidemiology? History of Epidemiology	<ul style="list-style-type: none"> Define epidemiology Discuss the concept of populations and population health Describe the history of epidemiology Describe the uses of epidemiology and examples of how it is used to study disease prevention 	Fos: Ch. 1-2	None	Week 1 Forums: -Introduction - Applications of Epidemiology
Lesson	Topic	Learning Objective(s)	Reading(s)	Assignment(s)	Forum(s)
2	Health and Disease Describing Health and Disease	<ul style="list-style-type: none"> Define health and disease Describe the natural history of disease and the concept of causal relationships Describe descriptive epidemiology and provide examples of descriptive 	Fos: Ch. 3-4	Week 2: Quiz #1	Week 2 Forum: - ProMED Assignment

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.

		<ul style="list-style-type: none"> variables Define an outbreak 			
Lesson	Topic	Learning Objective(s)	Reading(s)	Assignment(s)	Forum(s)
3	Measuring Health and Disease	<ul style="list-style-type: none"> Discuss the importance of rates Define and distinguish between incidence and prevalence rates Describe mortality rates Discuss the concept of confounding 	Fos: Ch. 5	Week 3: Quiz #2	Week 3 Forum: - Global Health Indicator Rates
Lesson	Topic	Course Objective(s)	Reading(s)	Assignment(s)	Forum(s)
4	Epidemiology Study Designs Use of Epidemiologic Studies	<ul style="list-style-type: none"> Describe and contrast observational and experimental studies Describe descriptive and analytical study designs and randomized clinical trials and the concepts of bias and validity Discuss the concept of and the methods for measuring the association between causal factors and disease Define relative 	Fos: Ch. 6-7	Week 4: Quiz #3 <i>Message Instructor with Final Paper Topic by Sunday for approval</i>	Week 4 Forum: - Journal Article Summary

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	Course Objective(s)	Reading(s)	Assignment(s)	Forum(s)
		risk, attributable risk, and odds ratio			
5	Epidemics Epidemiology and Society	<ul style="list-style-type: none"> Define epidemics and describe the response Discuss infectious disease transmission and surveillance Describe social determinants and the effect on health and disease Describe the built environment and how it affects health 	Fos: Ch. 8-9	Week 5 Assignment: - Movie Project Week 5: Quiz #4	Week 5 Forum: - Notifiable Diseases and Social Determinants of Health
Lesson	Topic	Course Objective(s)	Reading(s)	Assignment(s)	Forum(s)
6	Screening for Disease Community Public Health	<ul style="list-style-type: none"> Discuss disease prevention Discuss reliability, validity, sensitivity, and specificity Discuss the role of community health programs Describe public health programs and their evaluation 	Fos: Ch. 10-11	Week 6: Quiz #5	Week 6 Forum: -Disease Prevention
Lesson	Topic	Course Objective(s)	Reading(s)	Assignment(s)	Forum(s)
7	Application of Descriptive Epidemiology	<ul style="list-style-type: none"> Describe the Descriptive Epidemiology of a disease 	None	Week 7 Assignment: Research Paper	Week 7 Forum: -Journal Article Summary

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.

		<ul style="list-style-type: none"> • Discuss the risk factors for disease • Editing your research paper • Identifying academic sources 			
Lesson	Topic	Course Objective(s)	Reading(s)	Assignment(s)	Forum(s)
8	Epidemiology Today	<ul style="list-style-type: none"> • Discuss the role of epidemiology in emergency preparedness planning • Describe the global health status • Describe emerging diseases • Discuss infectious and chronic diseases that are expected to be concerns in the future 	Fos: Ch. 12	Week 8: Quiz #6	Week 8 Forum: -Emerging Disease in your Community -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](#)