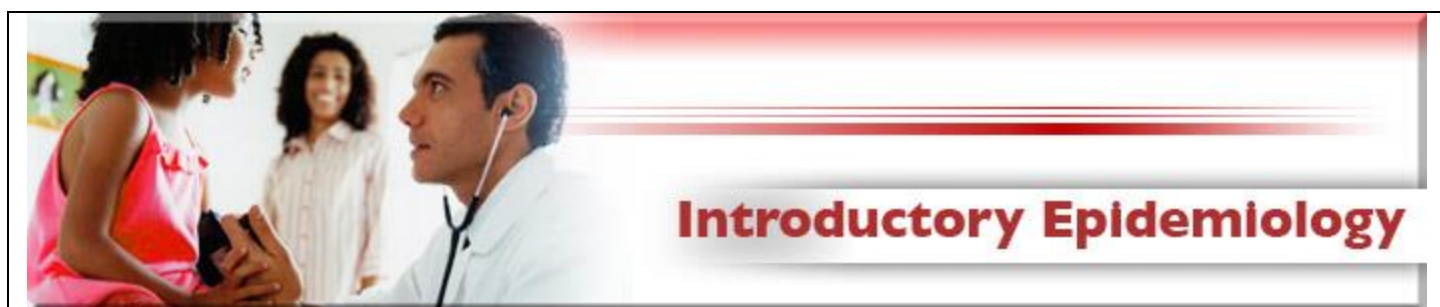


# Course at a Glance



**Course Title:** Introduction to Epidemiology.

**Course Number:** PHC4030

**Department:** Epidemiology and  
Biostatistics

**Credits:** 3 Credits

**Message From the Department:**

- All Public Health students need the tool of epidemiology.
- Students learn how to apply epidemiology methods to public health issues.
- Any problem of public health for its solution require the use of epidemiological methods.

**Course Overview:**

**Mandatory course of all students completing their B.S. in Public Health.**

**Students will learn the basic applications of epidemiological methods.**

**Course Description:**

This course provides undergraduate students with an overview of epidemiological methods and their application to understanding health- and non-health issues. Students will be expected to develop their critical thinking skills and apply the concepts presented in class to applied problems, both in and outside the field of health.

PHC 4030 is certified as a Global Citizens course and may be used to fulfill partial requirements of the Global Citizens Awards upon successful completion of the course (final grade of B or higher).

**Course Objectives.**

**Basic Learning Outcomes**

1. Describe the historical roots of epidemiologic thinking and their contributions to the evolution of the scientific method.
2. Explain how ethical principles affect epidemiological research.
3. Use rates and proportions to express numerically the amount and distribution of health- and non-health related outcomes.
4. Use the distribution of a health-related outcome to generate hypotheses that might provide an explanation.
5. Explain basic statistical and epidemiologic concepts of estimation, inference, and adjustment to establish causation.
6. Explain how to use evidence of association to make a judgment about whether an association is causal.
7. Describe the basic epidemiological study designs that are used to test hypotheses, identify associations, and establish causation.
8. Describe the concepts of measurement of test performance and be able to apply the concepts of testing and screening in different settings.
9. Apply the concepts of benefits, harms, and costs to a public health decision.
10. Describe the broad applicability of epidemiologic methods to clinical and basic science as well as public policy.

**Advanced Learning Outcomes**

1. Analyze the evidence for and against a recommendation for intervention.
2. Analyze a public health problem (e.g., investigation of a disease outbreak) using epidemiologic methods.
3. Synthesize epidemiologic methods to assess the strengths and weaknesses of assertions in the scientific literature and popular press.
4. Evaluate the design of an epidemiologic investigation demonstrating the ability to reconcile scientific validity and ethical sensitivity.

**Course Structure:**

Web-based with narrated presentations, weekly modules, assignments due 11:59pm on Sundays, Synchronous Online sessions. This will be an online course. The course will be taught in modules with specific due dates in which to complete modular assignments. Since a number of assignments are group assignments, you need to manage your time carefully and arrange for adequate participation in group activities. The focus of the class is on applying epidemiological methods to real world situations. Suggested dates by which to complete specific activities will be included in the syllabus.

**Types of Assessments:**

- |   |  |  |   |
|---|--|--|---|
| <input checked="" type="checkbox"/> Quiz/Exam           | <input type="checkbox"/> Web Quest                     | <input checked="" type="checkbox"/> Journal/Blog       | <input checked="" type="checkbox"/> Discussion Board        |
| <input checked="" type="checkbox"/> Written Assignments | <input type="checkbox"/> Poster Presentation           | <input checked="" type="checkbox"/> Individual Project | <input checked="" type="checkbox"/> Individual Presentation |
| <input checked="" type="checkbox"/> Group Project       | <input checked="" type="checkbox"/> Group Presentation | <input checked="" type="checkbox"/> Case Study         | <input type="checkbox"/> Research Paper                     |
| <input type="checkbox"/> Demonstration/Simulation       | <input checked="" type="checkbox"/> Midterm/Final Exam | <input type="checkbox"/> Other (specify)               |   |

**Student Expectations:**

Students are required to log in to Canvas frequently, students should contribute content to the course, students are expected to participate in meaningful discussion, submit assignments on time, contact instructor about special requests ahead of time.

It is expected that students watch online lectures and do readings. Many assignments are presented in the workbook and students may work collectively on those but the final assessments are independent. Students need to be responsible for monitoring their time. It is hoped that students will gain an appreciation for how epidemiology provides the data we need in public health.

**Technical Requirements:** *(in addition to the [standard technical requirements](#) for all online courses)*

Visit this website for software requirements and downloads:

- [http://health.usf.edu/publichealth/eta/students\\_tech\\_requirements.htm](http://health.usf.edu/publichealth/eta/students_tech_requirements.htm)
- 

All online courses receive 24-hour support by the Office of Educational Technology and Assessment. Contact the ETA department by using the [Tech Assistance](#) link in your course. Students can also receive assistance via telephone at 813-974-6666, Mon-Fri 8:30am – 5pm, or via email at [eta@health.usf.edu](mailto:eta@health.usf.edu)

**Please Note:** The information on this document is subject to change. The course instructor has the right to change any information posted in this document. Students should check the official syllabus released during the first week of classes for any updates to this document. For more information on this course or academic programs, please contact the [COPH Department](#) directly.