

**University of Florida**  
**College of Public Health & Health Professions Syllabus**  
**PHC 6001: Principles of Epidemiology in Public Health (3 credit hours)**  
Summer: 2016  
Delivery Format: E-Learning in Canvas

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Instructor Name: Krishna Vaddiparti

Phone Number: 352-273-5746

Email Address: kvaddiparti@ufl.edu

Office Hours: Since this is a completely online course, please contact me on phone or email to schedule an appointment. Otherwise, **I will make every effort to address any questions submitted via email or the Open Discussion boards within 72 hours.**

Teaching Assistants:

Sadaf Milani

Doctoral Student in Epidemiology

Phone Number: 786-877-8305

Email Address: [smilani@ufl.edu](mailto:smilani@ufl.edu)

Office Hours: By appointment

Preferred Course Communications: Email is the preferred means for contacting me. The fastest way to obtain a response to a query or comment will be to contact your assigned Teaching Assistant via email.

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### **Prerequisites**

None

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## **PURPOSE AND OUTCOME**

### **Course Overview**

This course is an introduction to epidemiology for students majoring in any aspect of the health sciences. This course presents the principles and methods of the epidemiological investigation of both infectious and non-infectious diseases. The purpose of this course is to equip students with the necessary knowledge and skills to explain the place of epidemiology in the general health thinking and to communicate and apply the basic principles of epidemiology. Examples of the use of the principles of epidemiology will be presented so that the student will have sufficient understanding to apply such principles in future health work. It is hoped that the course will allow the student to critically read and evaluate his/her public health work using epidemiological principles. This course is not intended to present the epidemiological aspects of any specific disease or class of diseases.

### **Course Objectives and/or Goals**

1. Apply the basic terminology and definitions of epidemiology
2. Calculate basic epidemiology measures of disease frequency and comparisons of disease risk between populations
3. Identify key sources of data for epidemiologic purposes
4. Draw appropriate inferences from epidemiologic data
5. Evaluate the strengths and limitations of epidemiologic reports
6. Apply basic infectious and chronic disease methods and data
7. Identify the principles and limitations of public health screening programs
8. Describe a public health problem in terms of magnitude, person, time, and place
9. Explain the importance of epidemiology for informing scientific, ethical, economic, and political discussion of health issues
10. Identify basic ethical and legal principles pertaining to the collection, maintenance, use, and dissemination of epidemiologic data
11. Communicate epidemiologic information to lay and professional audiences

### Instructional Methods

- 1) Lectures: are for general orientation. Students are responsible for all the material presented in the course and assigned readings.
- 2) Readings and Resources. In addition to the required text, supplementary readings and resources will be posted in the course as and when required. The reading list may be supplemented during the course.
- 3) Assessments: A variety of assessments will be used in this course, including but not limited to discussions, assignments and exams.

*What is expected of you?*

You are expected to actively engage in the course throughout the semester. Your participation fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

## DESCRIPTION OF COURSE CONTENT

### Topical Outline/Course Schedule

| Week | Dates       | Topic(s)   | Assigned Reading   | Homework  |
|------|-------------|--|--|---|
| 1    | 5/9 – 5/15  | <ul style="list-style-type: none"> <li>• Syllabus and Course Intro</li> <li>• Introduction to Epidemiology</li> </ul>  | <ul style="list-style-type: none"> <li>• Course syllabus (on Canvas site)</li> <li>• Ashengrau and Seage, Chapter 1, pages 1-32</li> </ul>                 | <ul style="list-style-type: none"> <li>• Complete the Canvas and Syllabus Quizzes</li> <li>• <b>Post a short introduction to yourself on the Social Discussion Board</b></li> </ul> |
| 2    | 5/16 – 5/22 | <ul style="list-style-type: none"> <li>• Measures of Disease Frequency</li> <li>• Comparing Disease Frequencies</li> </ul>                                       | <ul style="list-style-type: none"> <li>• Ashengrau and Seage, Chapter 2, pages 33-57</li> <li>• Ashengrau and Seage, Chapter 3, pages 59-76</li> </ul>     | <ul style="list-style-type: none"> <li>• Week 2 Exercise 1 - due 5/22 by 11:59PM</li> <li>• <b>Week 2 Discussion Board 1 – due 5/22 by 11:59PM</b></li> </ul>                       |
| 3    | 5/23 – 5/29 | <ul style="list-style-type: none"> <li>• Sources of Public Health Data</li> <li>• Descriptive Epidemiology</li> </ul>  | <ul style="list-style-type: none"> <li>• Ashengrau and Seage, Chapter 4, pages 77-100</li> <li>• Ashengrau and Seage, Chapter 5, pages 101-142</li> </ul>  | <ul style="list-style-type: none"> <li>• Week 3 Exercise 2 – due 5/29 by 11:59PM</li> <li>• <b>Week 3 Discussion Board 2 – due 5/29 by 11:59PM</b></li> </ul>                       |
| 4    | 5/30 – 6/5  | <b>Exam 1 - Covers Chapters 1 through 5 (Open 6/3 through 6/5 during Proctor business hours)</b><br><b>No lectures, exercises or discussion boards this week</b> |  |   |
| 5    | 6/6 – 6/12  | <ul style="list-style-type: none"> <li>• Overview of Epidemiologic Study Designs</li> <li>• Experimental Studies</li> <li>• Randomized Trials</li> </ul>         | <ul style="list-style-type: none"> <li>• Ashengrau and Seage, Chapter 6, pages 143-172</li> <li>• Ashengrau and Seage, Chapter 7, pages 173-204</li> </ul> | <ul style="list-style-type: none"> <li>• Week 5 Exercise 3 – due 6/12 by 11:59PM</li> <li>• <b>Week 5 Discussion Board 3 – due 6/12 by 11:59PM</b></li> </ul>                       |
| 6    | 6/13 – 6/19 | <ul style="list-style-type: none"> <li>• Cohort Studies</li> </ul>   | <ul style="list-style-type: none"> <li>• Ashengrau and Seage, Chapter 8, pages 205-232</li> </ul>  | <ul style="list-style-type: none"> <li>• Week 6 Exercise 4 – due 6/19 by 11:59PM</li> <li>• <b>Week 6 Discussion Board 4 – due 6/19 by 11:59PM</b></li> </ul>                       |

|    |             |   |  |   |
|----|-------------|---|--|---|
| 7  | 6/20 – 6/26 | <b>Summer Break Vacation – No lectures, exercises, or discussion boards</b>   |  |   |
| 8  | 6/27 – 7/3  | <ul style="list-style-type: none"> <li>Case Control Studies</li> </ul>  | <ul style="list-style-type: none"> <li>Ashengrau and Seage, Chapter 9, pages 233-264</li> </ul>  | <ul style="list-style-type: none"> <li>Week 8 Exercise 5 – due 7/3 by 11:59PM</li> <li>Week 8 Discussion Board 5 – due 7/3 by 11:59PM</li> <li>Submit a copy of the article that you will be reviewing for the Week 11 Exercise 7 - due 7/3 by 11:59PM</li> </ul> |
| 9  | 7/4 – 7/10  | <ul style="list-style-type: none"> <li>Bias</li> <li>Confounding</li> </ul>   | <ul style="list-style-type: none"> <li>Ashengrau and Seage, Chapter 10, pages 265-292</li> <li>Ashengrau and Seage, Chapter 11, pages 293-312</li> </ul> | <ul style="list-style-type: none"> <li>Week 9 Exercise 6 – due 7/10 by 11:59PM</li> <li>Week 9 Discussion Board 6 – due 7/10 by 11:59PM</li> </ul>  |
| 10 | 7/11 – 7/17 | <b>Exam 2 – Covers Chapters 6 through 11 (Open 7/15 through 7/17 during Proctor business hours)</b><br><b>No lectures, exercises or discussion boards this week</b> |  |   |
| 11 | 7/18 – 7/24 | <ul style="list-style-type: none"> <li>Critical Review of Epidemiologic Studies</li> <li>The Epidemiologic Approach to Causation</li> </ul>                         | <ul style="list-style-type: none"> <li>Ashengrau and Seage, Chapter 14, pages 363-388</li> <li>Ashengrau and Seage, Chapter 15, pages 389-416</li> </ul> | <ul style="list-style-type: none"> <li>Week 11 Exercise 7 – due 7/24 by 11:59PM</li> <li>Week 11 Discussion Board 7 – due 7/24 by 11:59PM</li> </ul>  |
| 12 | 7/25 – 7/31 | <ul style="list-style-type: none"> <li>Screening in Public Health Practice</li> <li>Ethics in Research Involving Human Participants</li> </ul>                      | <ul style="list-style-type: none"> <li>Ashengrau and Seage, Chapter 16, pages 417-446</li> <li>Ashengrau and Seage, Chapter 17, pages 447-466</li> </ul> | <ul style="list-style-type: none"> <li>Week 12 Exercise 8 – due 7/31 by 11:59PM</li> <li>Week 12 Discussion Board 8 – due 7/31 by 11:59PM</li> </ul>  |
| 13 | 8/1 – 8/5   | <b>Exam 3 – Covers Chapters 14 through 17 (Open 8/2 through 8/5 during Proctor business hours)</b><br><b>No lectures, exercises or discussion boards this week</b>  |  |   |

### Course Materials and Technology

REQUIRED TEXT: Essentials of Epidemiology, 3rd Edition by Ann Aschengrau, ScD, and George R. Seage III, DSc. Copyright 2014, ISBN: 978-1-284-02891-1. A 2<sup>nd</sup> Edition by the same authors is available and you can use that if you would like to. The content in these two editions is a lot identical whereas, the page numbers are slightly different.

**Completion of the assigned readings from this text is mandatory. Lecture presentations will highlight, review, and expand upon the most important aspects of the assigned reading materials. Students are still responsible for mastering any content from the assigned readings, exercises, or discussion boards that is NOT covered in a lecture presentation. Exams will cover all course content covered in assigned readings, exercises, discussion boards, and lecture presentations.**

For technical support for this class, please contact the UF Help Desk at:

- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

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## ACADEMIC REQUIREMENTS AND GRADING

### **One (1) Syllabus Quiz – 10 points; 2% of the course grade**

At the start of the course you need to pass a syllabus quiz with a score of 10 points out of 10. This quiz may be retaken multiple times until you score 10 points. This quiz is worth 2% of your grade. At any time during the semester, corrections and/or addendums may be applied to the course syllabus at the discretion of the instructor. Any corrections/addendums to the syllabus will be promptly communicated to students via email and published on the course website and will take effect from the time of communication onward.

### **One (1) Canvas Quiz – 10 points; 2% of the course grade**

At the start of the course you will view a video that will help you become familiar with the Canvas site for this course. You'll then take a quiz about the content of that video. You will need to pass that quiz with a score of 10 points out of 10. This quiz may be retaken multiple times until you score 10 points. This quiz is worth 2% of your grade.

### **Three (3) Exams – 100 points each (300 points total; 60% of the course grade)**

There will be three exams, each worth 20% of your grade. The format for these exams is 40 multiple choice questions, and each question is worth 2.5 points. You will have two hours to complete the exam. Exams are not cumulative. See the section on [Exam Proctoring Service](#) below and the ProctorU link on the Canvas site for more information on computer requirements and registering for exams.

### **Eight (8) Student exercises – 12.5 points each (100 points total; 20% of the course grade)**

There are 8 student exercises that will be completed as part of the course. Student exercises are not critically graded, but must be completed to earn 2.5% for each exercise. The instructor and TA's will determine whether an exercise has been completed sufficiently to earn credit. Students are welcome to work together on Exercises either through the Discussions section of the Canvas page or in-person, but your answers should be in your own words. Exercises are due on Sundays at 11:59 pm at the end of each week they are assigned.

**No make-ups of missed Exercises will be permitted.**

### **Eight (8) Discussion Board Topics – 10 points each (80 points total; 16% of the course grade)**

There are a total of 8 discussion boards available and you are expected to participate in all the 8 discussion boards. Discussion boards are critically graded, with each response worth up to 2% of your grade. To earn your 2% you must post your discussion board in the discussions section **AND** submit your discussion board through the assignments section. Discussion boards close for grading on Sundays at 11:59 pm at the end of each week. **No make-ups of missed Discussion Boards will be permitted.**

### **Note: Week 11 Exercise Requirement**

For week 11 Exercise, you are expected to review an epidemiological article as though you are an editor of a journal and give your recommendations and critique. The article will be assigned by the course instructor prior to review. However, if you wish to choose an article in your area of interest, the article that you chose to review should be on a topic related to human health and have been published (early online or in print) in a scientific journal in the past year, i.e., from January 1, 2015 to the present. You need to let us know the article that you will be reviewing by 7/3 by 11:59PM. Below is the format of review:

### Review of Article

**Article Title:**

**Reviewer Name:**

**Recommendation:**           Accept as is;  
   Accept with Minor Revision;  
   Accept with Major Revision;  
   Reject

**Review of Article (no longer than 1 page, single spaced):** Beginning with Abstract and ending with Discussion, critically evaluate the methods, results and discussion; list the limitations of the article not addressed by the authors and your suggestions to overcome these limitations.

### Exam Proctoring Service

The online MPH program will be using ProctorU for online proctoring services. This will be used by all students taking this course online, regardless of whether you are an on-campus student or not. You can access ProctorU at [www.proctoru.com](http://www.proctoru.com). Detailed guidelines for this proctoring system are available on your course website. Below is a short overview, please view the file online.

- Students are REQUIRED to have a microphone and webcam in place during the test-taking period.
- Students will NOT be allowed to take an exam without a webcam.
- Students must register for a time slot for their course exams with ProctorU starting the second week of the semester, but no later than 3 days prior to an exam.
- Exams will be administered 9:00AM – midnight (Eastern time), seven days a week – exams will CLOSE at the posted time in the course – do NOT schedule an exam appointment with ProctorU that will take you past this time, even if they allow it, i.e. do NOT sign up for an appointment at 11:00PM on the last day of the exam as the exam will close at 11:59PM and your exam time will only be 55 minutes versus the time allotted in the course for the exam.
- Exams scheduled for AFTER midnight (Eastern US time) will not have access to program assistance during your exam – it is highly recommended that you take your exams ONLY during the time of 9AM-midnight Eastern US time
- No one is allowed in the room with you while you take your exam, so be sure to make proper arrangements.
- The proctor will ask you for two forms of picture ID and may ask some public record questions to identify yourself
- Please plan on 1-hour beyond the test taking time for interfacing with ProctorU
- Proctoring fees are prepaid. For exams scheduled less than 3 days before an exam, they will charge you a \$5 late fee.

## Grading

| Requirement   | Due date           | Points or % of final grade |
|---------------|--------------------|----------------------------|
| Syllabus Quiz | 05/17/2015         | 2%                         |
| Canvas Quiz   | 05/17/2015         | 2%                         |
| 3 Exams       | See schedule above | 60%                        |
| 8 Exercises   | See schedule above | 20%                        |
| 8 Discussions | See schedule above | 16%                        |

Point system used (i.e., how do course points translate into letter grades).

| Total Course Points (out of 500) | Percent of Course Points (out of 100%) | Letter Grade | Grade Point Equivalent |
|----------------------------------|--|--------------|------------------------|
| 465 – 500                        | 93% - 100%                             | A            | 4.00                   |
| 450 – 464                        | 90% - 92%                              | A-           | 3.67                   |
| 435 – 449                        | 87% - 89%                              | B+           | 3.33                   |
| 415 – 434                        | 83% - 86%                              | B            | 3.00                   |
| 400 – 414                        | 80% - 82%                              | B-           | 2.67                   |
| 385 – 399                        | 77% - 79%                              | C+           | 2.33                   |
| 365 – 384                        | 73% - 76%                              | C            | 2.00                   |
| 350 – 364                        | 70% - 72%                              | C-           | 1.67                   |
| 335 – 349                        | 67% - 69%                              | D+           | 1.33                   |
| 315 – 334                        | 63% - 66%                              | D            | 1.00                   |
| 300 – 314                        | 60% - 62%                              | D-           | 0.67                   |
| Less than 300                    | Below 60%                              | E            | 0.00                   |

Please be aware that a C- is not an acceptable grade for graduate students. In addition, a grade of C counts toward a graduate degree only if an equal number of credits in courses numbered 5000 or higher have been earned with an A.

You must include the letter grade to grade point conversion table below. Letter grade to grade point conversions are fixed by UF and cannot be changed.

| Letter Grade | A   | A-   | B+   | B   | B-   | C+   | C   | C-   | D+   | D   | D-   | E   | WF  | I   | NG  | S-U |
|--------------|-----|------|------|-----|------|------|-----|------|------|-----|------|-----|-----|-----|-----|-----|
| Grade Points | 4.0 | 3.67 | 3.33 | 3.0 | 2.67 | 2.33 | 2.0 | 1.67 | 1.33 | 1.0 | 0.67 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at:

<http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### Exam Policy

***In general, taking an exam after the official closing time will only be permitted under extenuating circumstances. Late exams will only be permitted at the discretion of the instructor (advanced notice in writing required and per applicable University of Florida policies). Failing to schedule an exam time with ProctorU will not be considered a valid reason for requesting to take an exam late. At his/her discretion and in consultation with ProctorU representatives, the UF Director of Public Health Professional Education Programs may permit an extension of an exam that has already begun.***

**Syllabus and Canvas Quizzes:** No late quizzes permitted.

### **Policy Related to Make up Exams or Other Work**

Student exercises and Discussion Boards Topics: Submission of student exercises after the due time/date is not permitted, except at the discretion of the instructor (advanced notice in writing is required and per applicable University of Florida policies). Discussion Board submission will not be considered complete until it is submitted through BOTH the Discussion Section AND the Assignment Section.

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me and Truly Hardemon ([hardemont@ufl.edu](mailto:hardemont@ufl.edu)) within 24 hours of the technical difficulty if you wish to request a make-up.

### **Policy Related to Required Class Attendance**

All faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

## **STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT**

### **Expectations Regarding Course Behavior**

#### **Communication Guidelines**

#### **Online Participation**

Professional and respectful behavior is expected of all students participating in this online course. Please be aware that all assignments and homework are due on the specified date and time. Late submissions are almost universally not accepted. **High speed internet and a web cam are essential for this online course and ensuring internet connectivity and bandwidth is your responsibility.** Late submissions and inability to participate in discussion boards or inability to take exams due to poor internet connectivity is not accepted. Therefore, please refrain from waiting until the due date to submit your assignments or taking exams as it will be difficult for us to accommodate your requests because of technical problems from your side.

#### **Academic Integrity**

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

**“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”**

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

**“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”**

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>  
<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

### **Online Faculty Course Evaluation Process**

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

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## **SUPPORT SERVICES**

### **Accommodations for Students with Disabilities**

If you require classroom accommodation because of a disability, you must register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. The College is committed to providing reasonable accommodations to assist students in their coursework.

### **Counseling and Student Health**

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from:  
Alachua County Crisis Center  
(352) 264-6789  
<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

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