

University of Florida
College of Public Health & Health Professions Syllabus
PHC 6937: Hospital Epidemiology (3 credit hours)
Semester: Fall 2019
Tuesdays 11:45 am to 1:40 pm
Delivery Format: On-Campus; HPNP G-108
Course Website: E-learning in Canvas

Instructor Name: Cindy Prins, PhD, MPH, CIC, CPH
Room Number: HPNP 4107
Phone Number: 352-294-8576
Email Address: capfive@ufl.edu
Office Hours: Thursdays, 11 am to 12 pm, or by appointment
Preferred Course Communications (e.g. email, office phone): Email through UF mail please

Prerequisites: PHC 6001–Principles of Epidemiology in Public Health

PURPOSE AND OUTCOME

Course Overview

This course will discuss major topics in Hospital Epidemiology related to research on the control and prevention of healthcare-associated infections. Topics will be presented through online lectures and in-class discussions of journal articles and CDC Guidelines and through experiential learning, including a visit to UF Health Shands and attendance at the Infectious Disease Case Conferences.

Relation to Program Outcomes

- Design epidemiologic research studies and analyze data to answer health-related research questions that are currently relevant to the population (PhD in Epidemiology Student Learning Outcome 1)
- Illustrate a thorough understanding of epidemiology concepts (PhD in Epidemiology Student Learning Outcome 3)
- Apply surveillance, assessment, evaluation, and other foundational epidemiological research designs to all areas of interest (MS in Epidemiology Student Learning Outcome 1)

Course Objectives

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

- Discuss the major epidemiology study designs used in hospital epidemiology research
- Critically assess hospital epidemiology literature
- Debate a current controversy in hospital epidemiology
- Write a literature review on a hospital epidemiology topic

Introduction to Blended Learning

This course is taught in a blended learning format. Each week, one hour of content will be delivered online and two hours will be delivered in class.

A Blended Learning class uses a mixture of technology and face-to-face instruction to help students maximize their learning. Blended learning typically involves multiple technologies such as E-Learning systems, online video, and web assignments for the communication of

information. Knowledge content that would have traditionally been presented during a live class lecture is instead provided online before the live class takes place. This allows more of the face-to-face time to focus on the higher levels of learning. These rich interactions with the instructor can be used to help students think critically, obtain expertise, and practice clinical reasoning.

What Does It Mean for Students?

Students are expected to come to class prepared by completing all out-of-class readings and assignments. The coursework outside of class typically lays a foundation of knowledge or gives students practice needed to engage in higher levels of learning during live class sessions. During the face-to-face class time, students practice critical skills used by health professionals – critical thinking, problem solving, collaborating, and/or applying concepts gained from the out-of-class assignments to real-world examples. If students are not prepared for the face-to-face sessions, they will likely struggle to reach the higher learning goals of the course. When students come prepared, they can be active participants throughout the blended learning course experience, which will help them master course material and maintain what they have learned beyond the end of the course.

Course Materials

There is no required text book for this course. Reading assignments will be posted on the course website at least one week in advance of class.

There is one required non-fiction book - The Checklist Manifesto: How to Get Things Right, by Atul Gawande; Publisher: Picador; ISBN-10: 0312430000. The book is available in multiple formats, including paperback, e-book, and audio book. Students should select the format that they prefer.

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

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

DESCRIPTION OF COURSE CONTENT

Topical Outline/Course Schedule

| Date | Topic | Assignments |
|-----------------------|---|---|
| Week 1 - August 20 | Introduction to Healthcare Epidemiology | -None |
| Week 2 – August 27 | Surveillance and Reporting of Healthcare-Associated Infections and Adverse Events | -Article Review |
| Week 3 - September 3 | Searching the literature | -Guest lecture by Nancy Schaefer -Literature review topic due 09/02/19 |
| Week 4 - September 10 | Unexpected Hurricane Day Off | -None |
| Date | Topic | Assignments |
| Week 5 - September 17 | Research Methods in Hospital Epidemiology - Observational Studies | -Article Review (all) |

| | | |
|-----------------------|---|---|
| Week 6 – September 24 | Research Methods in Hospital Epidemiology - Randomized Trials and Quasi Experimental Designs | Online content only; no in-person class |
| Week 7 - October 1 | Central Line-Associated Bloodstream Infections; Urinary Tract Infections | -Literature review reference list due 9/30/19 -Article review (assigned) |
| Week 8 - October 8 | Medical Microbiology | -Lab tour |
| Week 9 - October 15 | Surgical Site Infections; Ventilator-Associated Events | -Article review (assigned) |
| Week 10 - October 22 | Multi-Drug Resistant Organisms (VRE, MRSA, C. difficile and resistant Gram-negatives) | -Article review (assigned) |
| Week 11 – October 29 | Isolation Precautions; Hand Hygiene | -Article review (assigned) |
| Week 12 – November 5 | Cleaning, Disinfection, and Sterilization (No in-person meeting this week because of APHA; Class will be online only) | |
| Week 13 - November 12 | -Safety Products -PPE -Epidemiological Investigations in Healthcare Settings | -Article review (assigned) -Literature review 1 st draft due 11/12/19 |
| Week 14 - November 19 | IPCC meeting – UF Health South Tower | |
| Week 15 – November 26 | Book Discussion | -In-class discussion of The Checklist Manifesto |
| Week 16 – December 3 | -Environmental Aspects of Hospital Epidemiology, including construction -Class Debate | -Article review (assigned) -Literature review final version due 12/9/19 |

ACADEMIC REQUIREMENTS AND GRADING

Requirements

The class will meet in-person for two hours each week. Class activities include a student-led discussions of the literature, case studies in hospital epidemiology, attending Infectious Disease Case Conferences, and visits to areas of interest at UF Health Shands hospital. Students should come to class prepared for that day's topic and activity. Preparation for class includes completing all assigned readings and assignments, and watching video presentations before class. In addition, students will complete a semester project which consists of writing a literature review. All due dates and requirements will be posted on the course site in Canvas.

| Requirement | % of final grade | Due Date |
|---|------------------|----------|
| Lead and Participate in Journal Article Discussions | 20% | Weekly |
| Homework | 20% | Weekly |
| Class Debate | 10% | 11/19/19 |
| Literature Review Topic | 5% | 09/02/19 |
| Literature Review Reference List | 5% | 09/30/19 |
| Literature review 1 st draft | 15% | 11/04/19 |
| Book Discussion | 5% | 11/26/19 |
| Literature Review Final Version | 20% | 12/03/19 |

Journal Article Discussions (Individual due dates will be assigned in week 1) – As part of the in-person class meetings there will be a student-led discussion of the literature, based on the topic presented in the online portion of the course that week. Each student will present at least one article over the course of the semester for the student-led discussion portion. Topics and dates will be assigned during the first class and the students will work with the instructor to identify appropriate articles to present. Discussion leaders will develop 8 to 10 discussion questions, due the week before class, which will be posed to students in class as a way to facilitate conversation about the article. In class, discussion leaders will give a short presentation on the context of the article within the field of Healthcare Epidemiology, including why they chose the article and other important research studies related to the article, and on the goals of the article itself. Each journal article discussion is expected to last approximately one class period and all students are expected to contribute to the discussions. The discussion leader will be graded on their level of preparation and ability to engage the class in conversation. Discussion questions will be submitted as word documents in the Assignments section of the Canvas course site.

Homework (Due most weeks of the course) – All students will be expected to complete the assigned reading before class and to prepare a one- to two-page summary of the article, due the day before class. The article summary should include a background section that explains the research question or topic, a summary of the article's findings, and an opinion section that discusses the strengths and weaknesses of the article, and how the article relates to the online course content that was presented that week. Article summaries will be submitted as word documents in the Assignments section of the Canvas course site.

Class Debate (10/30/18 in class) – Students will engage in a class debate on a controversial topic in hospital epidemiology. Students will be randomly assigned to support one side of the topic and will be expected to prepare for the debate with their group by researching the topic and developing effective arguments in favor of their side and effective rebuttals against the other team's points. Points will be allocated based on a rubric posted in the Canvas site that includes categories for organization and clarity of opening arguments, use of argument, use of rebuttal, and presentation style.

Book Discussion (11/27/18 in class) – We will read Atul Gawande's book "The Checklist Manifesto" and carry out a discussion of the book in class. Your participation in the discussion is worth 5% of your grade. This will be a student-led discussion but the instructor may pose questions to individual students to assess their preparedness for the discussion. A rubric will be provided to guide the grading of the discussion.

Literature Review (Multiple due dates) - Each student will select a topic in hospital epidemiology on which to write a literature review. The review should not just be a summary of the literature on the topic but should also include a critical assessment of the literature. Students will not be required to submit their articles to a journal as part of the assignment grade, but they will be encouraged to do so. The literature review will be submitted as a word document in the Assignments section of the Canvas course site. The breakdown of the literature review grading can be viewed in the Requirements section. Full details of the project will be discussed in class and a rubric will be provided in the Canvas site. All portions of the literature review will be submitted as Word documents in Canvas.

Grading

The grading scale for this course is as follows:

93% - 100% = A (4.00)

90% - 92% = A- (3.67)

87% - 89% = B+ (3.33)

83% - 86% = B (3.00)

80% - 82% = B- (2.67)
 77% - 79% = C+ (2.33)
 73% - 76% = C (2.00)
 70% - 72% = C- (1.67)
 67% - 69% = D+ (1.33)
 63% - 66% = D (1.00)
 60% - 62% = D- (0.67)
 Below 60% = E (0.00)

| Letter Grade | A | A- | B+ | B | B- | C+ | C | C- | D+ | D | D- | E | W F | I | N G | S- U |
|--------------|-----|------|------|------|------|------|------|------|------|------|------|------|--------|------|--------|---------|
| Grade Points | 4.0 | 3.67 | 3.33 | 3.00 | 2.67 | 2.33 | 2.00 | 1.67 | 1.33 | 1.00 | 0.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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>

Policy Related to Make up Exams or Other Work

Opportunities to make up assignments will only be given in the event of illness that is documented by a physician or at the discretion of the instructor. If you are unable to submit an assignment on time, it is your responsibility to contact the instructor by email as soon as possible to request an alternate arrangement and due date. If an alternate arrangement is not requested or offered then no credit will be given for the assignment. Any approved make-up assignments should be submitted to the instructor through UF email.

Policy Related to Required Class Attendance

Attendance is required for all class sessions. Exceptions are made per the University's policy, including "illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, professional conferences), military obligation, severe weather conditions, religious holidays and participation in official university activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused. Other reasons also may be approved." The UF attendance policy may be viewed at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

If you need to miss class then you should contact the instructor as soon as possible to cite the reason for the absence. Each unexcused absence will result in a deduction of 1% per class period from the overall course average.

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

Students are expected to arrive on time to class and remain throughout the scheduled class time. If you need to arrive late or leave early for any reason, please inform the instructor prior to class. You may use your laptop or cellphone in the classroom but use should be limited to viewing materials related to the course and taking notes. Cheating and plagiarism will not be tolerated and will result in consequences up to and including failure of the course per the UF Honor Code. Disruptive classroom behavior will not be tolerated and may result in a Conduct Code violation. See the Academic Integrity section of this syllabus and the UF Student Conduct & Honor Codes for details: <https://sccr.dso.ufl.edu/students/student-conduct-code/>

Communication Guidelines

The best way to communicate with me is by email, either through the Canvas site or through the UF email system. Please give me up to 24 hours during the work week to respond to your email, although I usually reply much sooner. I sometimes check email on the weekend but I do not guarantee that I'll respond during that time. Email correspondence should follow the etiquette of business emails (see UF's *Netiquette Guide for Online Courses* for guidance at <http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>). If you would like to meet in person outside of office hours then please make an appointment to see me; this ensures that we will have an uninterrupted time to meet.

PHPH Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu.

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.

Turnitin

Academic integrity is a serious issue that has been a growing problem at Universities. I have a zero tolerance policy for breaches of academic integrity, including plagiarism and cheating.

There are multiple video resources posted on the UF website site that discuss plagiarism and how to properly quote, paraphrase, and cite other people's work. With each assignment and exam you complete you are pledging that you hold yourself and your classmates to the highest standards of academic integrity. I use an online tool called Turnitin to check student work for originality; in other words, your work should be in your own words and not copied from any source. Every student needs to watch the videos on plagiarism and on using Turnitin and needs to check their own Turnitin report, made available through the Canvas site automatically when you submit anything through assignments. You should submit assignments early enough to have time before the due date to make revisions to them if your Turnitin report shows areas of high similarity to online resources. Any student caught cheating or plagiarizing will be reported to the Dean of Students Office and will be subject to academic penalties in the course, at minimum.

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. In addition, you will be provided with some time in class during which you can complete the evaluation. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

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.

Incomplete Grades

Per the University Catalog, "An incomplete grade may be assigned at the discretion of the instructor as an interim grade for a course in which you have completed a major portion of the course with a passing grade, been unable to complete course requirements before the end of the term because of extenuating circumstances, and obtained agreement from the instructor and arranged for resolution of the incomplete grade. Instructors are not required to assign incomplete grades. If make-up work requires classroom or laboratory attendance in a subsequent term, you must not register for the course again. Instead, you should audit the course and pay course fees. If the make-up work does not require classroom or laboratory attendance, you and your instructor should decide on an appropriate plan and deadline for completing the course. When the course is completed, the instructor will initiate the change of grade. These procedures cannot be used to repeat a course for a different grade. An I grade should not be assigned to a student who never attended class; instead, instructors should assign a failing grade."

"A grade of I* or N* is not considered a failing grade for the term in which it is received, and it is not computed in the grade point average. However, if the I* or N* has not been changed by the end of the next term for which you are enrolled and receive grades, it will be counted as a failing grade and used in computation of your grade point average."
