

University of Florida
College of Public Health & Health Professions Syllabus
PHC 4024 Applied Epidemiology (3 credits)
Semester: Fall 2023
Delivery Format: On-Campus
<http://lss.at.ufl.edu>
Room HPNP G114
Thursday's from 11:45-2:45

Instructor Name: Jerne Shapiro, MPH
Department of Epidemiology
College of Public Health & Health Professions, College of Medicine
Email Address: shapiroj@ufl.edu (please don't use Canvas)
Office Location: 2055 Mowry Road / Emerging Pathogens Institute, Rm 256
Office Hours: Monday from 12:00-1:00 pm (please let me know if you plan to attend)

Teaching Assistant(s): Please see the course website

Email: UF account

Office Location: Please see the course website

Office Hours: Please see the course website

Preferred Course Communications (e.g., email, office phone): Direct email (shapiroj@ufl.edu) through Outlook email. This is the preferred method of communication, not the message function within Canvas. Emails received on weekdays (Monday-Thursday) can expect a response within 24 to 48 hours. If I have not responded within two days, please contact me again. Your message is important to me, but it may have been overlooked. Emails received during the weekend or after 5pm on Friday will be answered the following Monday.

Prerequisites

HSC 3057, HSC 3502, HSC 4558, PHC 4101, and Health Science and Public Health majors/minors only.

PURPOSE AND OUTCOME

Course Overview

This is a 3-hour course and is an introduction to Applied Epidemiology for students in the Bachelor of Public Health and Health Science programs. This course will cover basic epidemiological concepts and will demonstrate how these concepts can be applied to problems encountered in everyday life, e.g., outbreak investigations, risks associated with lifestyle choices, water safety, rural health, school health, and mental health. The student will gain knowledge through lectures, case-based studies, GIS introduction, readings, field trips, and exercises. The student will get to experience firsthand how Epidemiology is applied every day; in order to accomplish this, the class will be visiting different agencies throughout the community as well as having guest lecturers.

Relation to Bachelor Program Outcomes

1. Introduce the role and importance of data collection and analysis in public health
2. Identify and address population health concepts
3. Introduce approaches and interventions to address population concerns
4. Explore the applications of electronic technology (e.g., GIS) to communicate data

Course Objectives and Goals

- Calculate and interpret epidemiological measurements used to describe disease occurrences

- Describe the distribution of morbidity, mortality, and risk factors in terms of magnitude, time, place, and population
- Explain the correct uses and applications for both descriptive and analytic epidemiology
- Compare and contrast association and causality
- Identify key sources of data for epidemiologic purposes
- Apply basic principles of public health surveillance in the practice of public health
- Explain infectious diseases principles and apply outbreak investigation techniques
- Recognizes special epidemiological applications: Examples include: Molecular and Genetic Epi, Environmental Epi, Occupational Health, Unintentional Injuries, College Students, Long Term Space Travel Epi, Social and Behavioral Epi, Psychiatric Epi, and Cancer Epi
- Understand the importance of how health outcomes can be impacted by improving population health
- Use information technology tools and statistical programming packages.
 - Be able to discuss (with a basic understanding) Global Information System (GIS)
- Discover how local health agencies collect and use surveillance data to develop health interventions and policies

Instructional Methods

1. **Lectures:** provide a general overview of each topic. Powerpoint slides will be available on the class website under the Modules tab.
 - a. **Field trip:**
 - i. Florida Department of Health – Alachua County – Students will meet with each department Director (e.g., WIC, MomCare, Epidemiology, Environmental Health, HIV, TB, etc.) to better understand the role of the Health Department and its numerous service programs that address concerns and needs of the community using evidence-based interventions to address the unique population in our region.
2. **Required Readings:** Supplemental readings will be assigned for lectures and are posted by topic under the Modules tab. There is no assigned textbook for this course.
3. **Examinations:** Students are expected to take the examinations on the scheduled date and time. This class has three exams, and all are closed notes/books. The final exam will be cumulative. Supplemental Materials needed for exams include a computer and a calculator with square root and logarithmic functions.
4. **Class Participation:** There are a lot of opportunities for discussion in this course. Attendance will be taken in each class using a quiz and by role during field trips. This will comprise 20% of your course grade. The exact worth of each day will be determined at the end of the semester. It will be calculated based on how many days the class meets during the semester ($100/\text{number of class days} = \text{number of points each day is worth}$).
5. **Self-guided and Group work:** Various assignments will be scheduled throughout the semester. These will be completed independently (outside of class) or in your assigned group (during class time). Please see the Assignment tool for more information.

DESCRIPTION OF COURSE CONTENT

Topical Outline

Week	Topics	Readings and Resources (see the class website for updated reading material)
1	<ul style="list-style-type: none"> • Course Introduction and Syllabus Review • History, Philosophy, and Uses of Epidemiology 	No reading

Week	Topics	Readings and Resources (see the class website for updated reading material)
2	<ul style="list-style-type: none"> Epidemiologic Measurements Used to Describe Disease Occurrence Group assignments In-class group activity, Epi Measures 	Reading: Ch 2 Basic Epidemiology
3	<ul style="list-style-type: none"> Data and Additional Measures of Disease Occurrence and Surveillance Self-study questions are at the end of Ch 2 Basic Epi Self-study practice problems located in this week's module 	Continued reading: Ch 2 Basic Epidemiology
4	<ul style="list-style-type: none"> Descriptive Epidemiology: Patterns of Disease— Person, Place, Time In-class group activity on Descriptive Epi- describing and interpreting data 	
5	Exam 1	Bring your laptop, pencil, and a non-graphing calculator. The exam will cover all materials up to this date. An equation sheet will be provided.
6	<ul style="list-style-type: none"> Association and Causation Guest Lecturer: Dr. Janelle Garcia from GatorWell, the Risk Factors of UF College Students (view online in Canvas) 	<ul style="list-style-type: none"> Read Ch 5 Basic Epidemiology Learn more about the Health Data GatorWell uses, its chosen Health Topics, and the Services it currently offers at https://gatorwell.ufsa.ufl.edu/about/
7	<ul style="list-style-type: none"> Analytic Epidemiology: <ol style="list-style-type: none"> Types of Study Designs Challenges to Validity Analytic Epi assignment. Self-guided 	Reading: Focus on Field Epidemiology: Choosing a Study Design, Cohort Studies, Case Control Studies, Journal article- Bias and Causal Association in Observational research
8	<ul style="list-style-type: none"> Environmental Epidemiology In class activity Sensitivity and Specificity 	Watch the movie Contagion (2011) and be prepared to discuss it in next week's class.
9	<ul style="list-style-type: none"> Infectious Diseases and Outbreak Investigations In-class group discussion on the movie <i>Contagion</i> (2011) 	
10	Class exercise: Outbreak exercise	Bring a pencil and calculator to class
11	Exam 2	Bring your laptop, pencil, and a non-graphing calculator. The exam will cover all materials up to this date. An equation sheet will be provided.
12	<ul style="list-style-type: none"> Guest Lecturer: Epidemiology of Space Flight, Brian Smallwood, DDS, MPH Social and Behavioral Epi 	
13	FIELD TRIP: Florida Department of Health- Alachua County: Summary of Services and Programs (12:15-2:15)	Learn more about ACHD at http://www.doh.state.fl.us/chdalachua/
14	Thanksgiving break!! No school	

Week	Topics	Readings and Resources (see the class website for updated reading material)
15	<ul style="list-style-type: none"> • Global Information System (GIS) with Parker Hinson, MPH- view online in Canvas • Hawaiian Day- food and fun • Epi Game 	
16 & 17	<p>Two options to take the final exam:</p> <p>Wednesday (12/6) from 5:30-7:30pm in room HPNP, room G-312</p> <p>Thursday (12/14) from 3:00-5:00pm in HPNP, room G-114</p>	Bring your laptop, pencil, and a non-graphing calculator. The exam will cover all materials up to this date. An equation sheet will be provided.

Course Materials and Technology

Lectures, lecture notes, readings, instructor contacts, and course schedule are available on the website.

This course will utilize the UF eLearning system, which is accessible at <http://lss.at.ufl.edu> or through my.ufl.edu. You must have a valid Gatorlink ID and password. Components of the site require Java and pop-up windows (you will have to allow these when using Vista). For assistance, call the UF Help Desk at 352-392-HELP or email them at helpdesk@ufl.edu

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>

Technical Skills Needed for the Course

1. UF Canvas account
2. Use email with attachments
3. Creating and submitting files in commonly used word processing program formats
4. Copying, pasting, print screen, and snipping tool
5. Downloading and installing software
6. Using presentation and graphics programs
7. Excel- basic knowledge

When to Send an Email to the Instructor vs my assigned Teaching Assistant (TA):

Contact your TA: Each class section has an assigned TA. The TA is responsible for grading assignments, answering course material questions, answering assignment questions, and will provide clarification to the students when needed. They hold office hours each week for you to meet in person or via Zoom, or they can be reached via email.

Contact the course Instructor, Jerne Shapiro, when you have a scheduling conflict, suspect a grading error, family emergency, are experiencing a technical issue, or are behind in the course.

<http://studentlife.online.mph.ufl.edu/when-to/when-to-send-e-mail-to-the-instructor/>

Please keep the following things in mind when emailing the Instructor or your TA.

1. **Be Formal-** Use a proper salutation when emailing and finishing with a "Thank you" is always appreciated. This is true for other professors and/or employers.

2. Use a **subject line**; please do not leave it blank.
3. **Specify** whom you are by first and last name, and specify which class you are taking before diving into the specifics. I often teach multiple classes per semester and usually have hundreds of students to serve. **State your name, the class you are taking and the course section** (I might teach three sections of your course and will need to know which one you attend).
4. **Be thorough-** Any time you send a message, you should have two things in mind: goal and audience. Your audience here is me, your professor. Your goal could be any number of things, from clarifying the reading assignment to asking for an extension. Whatever your goal may be, you will want to anticipate any questions I may have and incorporate the information into your message.
5. **Be kind-** Professors are people, too. We have friends, families, hobbies and favorite foods. So, when you email a professor, remember that you are not writing to an entity, a building or a computer — you are communicating with a real person. Be kind, be thankful and do not come across as demanding.
6. **Allow time-** If you need advice or clarification on an assignment, avoid emailing the night before it is due. You might not get a timely reply.
7. **Proofread-** The final step, proofreading ensures that you come across as professional and caring. An email full of errors and faulty sentence structure may distract from your message.
8. **Don't use AI to write an incredibly long email to ask a very simple question.**

Additional Academic Resources

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall, 352-392-2010, or to make an appointment 352- 392-6420. General study skills and tutoring.

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.

Online Students Complaints: View the Distance Learning Student Complaint Process.

ACADEMIC REQUIREMENTS AND GRADING

Requirements

Students are responsible for all course material, including reading all required materials prior to each lecture. You will be required to bring a laptop to class on designated days.

Readings and Discussions

Students should read the assigned readings prior to viewing course lectures and be prepared to discuss the material in class.

Grading

Requirement	Due date	% of the final grade
Exam 1	9/21	20%

Exam 2	11/2	20%
Final exam	Wednesday (12/6) from 5:30-7:30pm in room HPNP, room G-312 Thursday (12/14) from 3:00-5:00pm in HPNP, room G-114	20%
Class participation	ongoing	20%
Group work or self-guided work <ul style="list-style-type: none"> • Epi Measures (group work) • Descriptive Epi (group work) • Analytic Epi- Study Classification (self-guided work) • Discussion on <i>Contagion</i> (group work) • Infectious Disease Assignment (self-guided work) • Outbreak Exercise (group work) 	10/31 9/14 10/11 10/19 10/25 10/26	20%

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

Points earned	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	Below 60
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

Please be aware that the Bachelor of Health Science and Bachelor of Public Health Programs do not use C-grades.

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

More information on UF grading policy may be found at

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

Policy Related to Make-up Exams or Other Work

If you are unable to meet a deadline in this course for a reason approved above and have given prior notification to the instructor when possible, you will be given adequate time to make up any coursework missed. All other missed or late work will receive a grade of zero. Make-up exams will be provided only in cases of excused absences or conflict during final exams per University policy and MUST be discussed with the instructor in advance. Make-up exams will differ from the regularly scheduled exam.

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the UF Computing help desk (<http://helpdesk.ufl.edu/>) correspondence. You MUST email me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance

Per the University of Florida, students are responsible for satisfying all academic objectives as defined by the instructor. Acceptable reasons for absence include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, and 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. Remember that, when possible (i.e. extracurricular activities, official University activities, and religious holidays), **prior notification** of absence is required if the student plans to be given an extension on assignments.

Please note 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>

Classroom Etiquette

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. The use of laptops and cell phones are prohibited in the classroom unless otherwise specified. Cheating and plagiarism will not be tolerated and will result in a grade of zero for the assessment.

Instructor Response Time:

I routinely check emails, Monday- Friday. You can anticipate a 24 to 48-hour response from me, Monday – Thursday. If I do not respond within this time please send an email reminder, it may have gotten lost or deleted. Assignments, exams, and Homework should be returned within one week.

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Academic Integrity

Instances of cheating or inappropriate behavior will be considered violations of the Student Honor Code and will result in disciplinary action.

- Cheating; includes using unauthorized sources of information and providing or receiving unauthorized assistance on any form of academic work or engaging in any behavior specifically prohibited by the faculty member. This includes sharing questions and material covered on quizzes. It also includes using unauthorized materials during exams.
- Plagiarism; includes the copying of language, structure, ideas, or thoughts of another, and representing them as one's own without proper acknowledgment. If you want to self-check your work, use Turn It In.
- Unauthorized Possession or Disposition of Academic Materials; includes the unauthorized selling, trading, or purchasing of quizzes or other academic work (including homework and activities); stealing another student's work; unauthorized entry to or use of material in a computer file; and using information from or possessing exams that an instructor did not authorize for release to students.
- Falsification; any untruth, either verbal or written, in one's academic work.
- Facilitation; knowingly assisting another to commit an act of academic misconduct.

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/>

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/>.

Recording Within the Course:

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Policy Related to Guests Attending Class:

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to

bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy in its entirety. Link to full policy: <http://facstaff.phhp.ufl.edu/services/resourceguide/getstarted.htm>

SUPPORT SERVICES

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, it is strongly recommended you register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class or as soon as you believe you might be eligible for accommodations. The Dean of Students Office will provide documentation of accommodations to you, which you must then give to me as the instructor of the course to receive accommodations. Please do this as soon as possible after you receive the letter. Students with disabilities should follow this procedure as early as possible in the semester. 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>. Online 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.

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 an inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu
