

University of Florida
College of Public Health & Health Professions

PHC 6000: Epidemiology Methods I
3 credit hours

Syllabus
Spring 2023

Delivery Format: On campus
Fridays, 08:30 AM – 11:30 AM, HPNP G-101

Instructor Name	Kelly K. Gurka, MPH, PhD	
Room Number	Clinical and Translational Research Building (CTRB), Room 4219	
Phone Number	352-273-5362	
Email Address	kgurka@ufl.edu	
Office Hours	TBD, CTRB 4219 or by appointment	
Teaching Assistants	Upuli Dissanayake, MS, CPH upulid@ufl.edu By appointment.	Alyssa Falise, MSPH alyssa.falise@ufl.edu By appointment.
Preferred Course Communication:	E-mail is the preferred mode of communication. Use the e-mail function in Canvas, selecting Dr. Gurka (as well as the TAs, if desired) as the recipient(s). Include “PHC 6000:” in the subject line. Messages sent prior to 5:00 PM on business days generally will receive a response no later than 5:00 PM the next business day. Otherwise, messages will generally receive responses no later than 5:00 PM the second of the next two business days. If you do not receive a response in these timeframes, re-send the message (with the daily volume of e-mail, messages are missed occasionally). See <i>Communication Guidelines</i> for more information.	

At any time during the semester, corrections and/or addenda to the course syllabus are made at the discretion of the instructor. Updated versions of the syllabus will be linked in Canvas and communicated to students via Canvas notification, taking effect immediately. Due dates for exercises and examinations are not subject to change.

PREREQUISITES

PHC 6001 and PHC 6052, or permission from the instructor.

PURPOSE AND OUTCOME

Course Overview

This course extends the concepts covered in principles of epidemiology, conducting an in-depth examination of the theory of epidemiology and its application to epidemiologic research, including problem conceptualization, sound study design, research conduct, and interpretation of findings.

Course Objectives

Upon successful completion of this course, students should be able to:

1. Identify and integrate principles of causal inference into designing and interpreting studies,
2. Understand epidemiologic theory and use it to guide the application and interpretation of epidemiologic methods related to epidemiologic measures; random error and bias (including confounding), and their role in internal and external validity; and effect measure modification.
3. Select appropriate study designs to answer specific scientific questions and design sound, rigorous approaches to conducting those studies,
4. Critically appraise published research studies,
5. Integrate and interpret epidemiologic evidence resulting from multiple studies, and
6. Communicate epidemiologic methods in writing and verbally.

COURSE CULTURE

Inclusion

Public health is rooted in the belief of human dignity. Diversity in background, experience, and opinion is valued and believed to provide a rich learning environment. Our goal is to promote openness and tolerance of differences in identity and culture in this course, as well as respect differing personal, spiritual, and political beliefs. We strive to create an inclusive and welcoming classroom for students of all races, ethnicities, sexes, gender identities, sexual orientations, physical ability/disability, neuro-typical/atypical status, and religions. If you feel unwelcome in the classroom environment or are experiencing harassment, we welcome you to talk to Dr. Gurka; we can direct you to additional resources as well. We welcome you sharing your preferred pronouns and/or name; we do our best to address students as they wish.

Necessarily, the content of PHC 6000 includes concepts that will relate to race, sex assigned at birth, gender identity, sexual orientation, and other characteristics related to human health. As a member of only one category of each of these characteristics, Dr. Gurka is likely to make some mistakes when talking about sex, gender identity, sexuality, race, ethnicity, and the intersections thereof, at some point in the semester. When she does, she hopes you feel empowered to provide feedback on what

did not work for you, and how she can do better – in person or on paper, identifying yourself or anonymously. It is not your job to educate her, but if you choose to, she will do her best to receive feedback with an open mind, gratitude, and as little defensiveness as possible.

Expectations

To foster a culture of inclusion, we also expect each of you to come to the course with an open, curious mind and respect for differing ideas and opinions. Everyone is expected to engage *actively* in the course throughout the semester, including active participation in course activities such as discussions. Your participation fosters a rich course experience for everyone, including the instructional team, and a rich course experience facilitates overall mastery of the course objectives. Specifically, students are expected to:

- Respect the ideas and opinions of peers and the instructional team,
- Adhere to ethical principles, including academic integrity,
- Complete the assigned reading *prior* to class,
- Attend every class session in its entirety and arrive on time,
- Actively participate in class discussions and group activities, and
- Submit assignments by the due date and time.

COURSE CONTENT

Instructional Methods

Readings. Textbook reading is assigned weekly and should be completed *prior* to class. Arrive in class ready to discuss and apply concepts presented in the textbook. Additional reading will include supplemental materials posted to Canvas. Students are responsible for material included in readings.

Lectures. Multiple, short lectures will be utilized during each session to complement reading assignments. These lectures will be delivered live in the classroom, and students are responsible for the material presented during course lectures.

Group Work. Small-group discussions and activities are intended to reinforce concepts introduced in the reading, providing opportunities to explore and apply methods in real-world context.

Supplemental on-line content. Additional course content, utilized throughout the semester, is posted to the course website in Canvas.

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Spring 2023

Course Schedule

Week	Date	Topic	Reading Assignment ^a	Assignments ^b
1	13JAN2023	Course Introduction		Baseline Assessment
2	20JAN2023	Causal Inference & Scientific Reasoning	ME 1 & 2, CI 1	
3	27JAN2023	Measures of Occurrence	ME 4	
4	03FEB2023	Measures of Effect and Association	ME 5, CI 2 & 3	Exercise 1 Due
5	10FEB2023	Measures of Effect and Association, cont.		
6	17 FEB2023	Cohort Studies	ME 6 & 7, CI 3	
7	24FEB2023	Case-Control Studies	ME 6 & 8, CI 3	Exercise 2 Due
8	03MAR2023	Mid-Term Examination		
9	10MAR2023	Formal Causal Models	ME 3, CI 6	
Spring Break: 11 – 19 MAR 2023				
11	24MAR2023	Confounding and Confounders	ME 12, CI 7	
12	31MAR2023	Effect Measure Modification Measurement	ME 13, CI 4 & 5	
13	07APR2023	Measurement and Measurement Error	CI 9	Exercise 3 Due
14	14APR2023	Selection Bias and Generalizability	ME 14, CI 8	
15	21APR2023	Precision and Statistics in Epidemiologic Studies	ME 15	
--	28APR2023	OPTIONAL: Review for the Final Examination		Exercise 4 Due
Final Examination: Friday, 05 May 2023 @ 07:30				

^a ME, *Modern Epidemiology*; CI, *Causal Inference: What If*.

^b Attendance and participation are assessed and in-class exercises occur weekly.

ACADEMIC REQUIREMENTS AND GRADING

Course Materials and Technology

Course materials – other than the textbook – will be provided through the course website. The course website is located in Canvas: <https://ufl.instructure.com/courses/474138>.

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

- (352) 392-HELP - select option 2
- helpdesk.ufl.edu (website)

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](#).

ACADEMIC REQUIREMENTS AND GRADING

Assignments

Attendance and Participation – 30 total point, 6% of the course grade

Attendance of and Participation in Each Class Session

2 points = Full attendance of and participation (or pre-authorized/excused absence)

1 point = Partial attendance of and/or participation

0 points = Unexcused absence

30 possible points (15 sessions)

In-Class Exercises – 110 total points (varies by exercise); 22% of the course grade

In-class exercises will be required throughout the course. At times, students will be required to work together on exercises, but each student's responses must be his/her/their own work. The exercises will vary in format throughout the semester. Formats include, but are not limited to, problem sets; diagrams; open-ended, short-answer questions; and group activities. Exercises will be distributed and

collected during the class session. When indicated, class exercises may be submitted at a later time via Canvas.

Exercises – 160 total points (40 points each); 32% of the course grade

Individual, take-home exercises will be required throughout the course. The exercises share a similar format with the in-class exercises. Take-home exercises will be posted to and submitted through Canvas. Assignments are due before 8:30 am (the beginning of the class session) on the days indicated in the course schedule.

Examinations – 200 points (100 points each), 40% of the course grade

Two closed-book examinations will be administered in this course to assess depth of understanding of the material. The examinations will consist of quantitative problems and questions of different formats, including multiple choice, short answer, and quantitative problems intended to assess depth of understanding of the material. Examinations will focus on the course content covered since the previous examination; however, due to the nature of the discipline, you will be responsible for content presented earlier in the course as well.

Grading

Requirement	Due Date	Points (%)
Attendance & Participation	Assessed for each session.	30 (6%)
In-Class Exercises	At the end of each session, unless a later due date is communicated during the session.	110 (22%)
Exercises	See Course Schedule.	160 (32%)
Examinations	See Course Schedule.	200 (40%)
TOTAL		500

Point System Used (i.e., how course points translate into letter grades).

	% of Total Points Earned	Letter Grade	Grade Point Equivalent
≥ 465	≥ 93%	A	4.00
450 – 464.99	90 – 92.99%	A-	3.67
435 – 463.99	87 – 89.99%	B+	3.33
415 – 434.99	83 – 86.99%	B	3.00
400 – 414.99	80 – 82.99%	B-	2.67
385 – 399.99	77 – 79.99%	C+	2.33
365 – 384.99	73 – 76.99%	C	2.00
350 – 164.99	70 – 72.99%	C-	1.67
335 – 349.99	67 – 69.99%	D+	1.33

315 – 334.99	63 – 66.99%	D	1.00
300 – 334.99	60 – 62.99%	D-	0.67
< 300	< 60%	E	0.00
	--	WF	0.00
	--	I	0.00

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

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

Examination Policy

Two, in-class examinations will be administered during the course, a mid-term examination (see course schedule) and a final examination, to be administered during the University designated time for this course. During examinations, students will be allowed to have a non-programmable, scientific calculator such as the Texas Instruments TI-30X IIS, available online or in stores such as Target and Walmart for about \$9. In addition, students may have blank scratch paper and a pen or pencil during examinations.

Policy Related to Make-up Examinations or Other Work

As stated above, attendance is required in the course to facilitate learning and will be assessed.

If you are unable to attend class due to illness, serious family emergency, military duty, life-threatening weather conditions, religious holidays, special curricular requirements, or participation in official UF activities, your absence will be excused when advanced notice (when possible) and the requested documentation is provided. Absences for attendance of professional development activities such as attending a scientific conference may be excused on a case-by case basis; prior approval is required. Please communicate with Dr. Gurka as soon as possible regarding absences so that make-up work for missed in-class exercises can be arranged.

If you have a scheduling conflict with the date of any of the course examinations, please discuss it with Dr. Gurka *as soon as you are aware of the conflict*. For rare and acceptable situations, arrangements may be made for an alternative time at which to take the examination. These arrangements need to be made *as soon as possible* in the semester but *no later than two weeks prior* to the scheduled examination date. Late examinations will only be permitted at the discretion of the instructor (advanced notice in writing required and per applicable University of Florida policies). For unforeseen and *exceedingly-rare* circumstances, taking a make-up examination after the scheduled examination may be permitted.

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Classroom Behavior

The classroom role of both instructors and students involves demonstrating attitudes, values, and behaviors consistent with professional standards. In the classroom, an environment conducive to learning is fostered through mutual respect among students and faculty members. Behavior that jeopardizes that environment is inconsistent with professionalism and will not be tolerated. To ensure a focused learning environment, all personal communication devices must be turned off or switched to silent mode during class. Laptops or other portable electronic devices may be used for course purposes only.

Communication Guidelines

E-mail is the preferred mode of communication. Use the e-mail function Communication: in Canvas, selecting Dr. Gurka (as well as the TAs, if desired) as the recipient(s). Messages sent prior to 5:00 PM on business days *generally* will receive a response no later than 5:00 PM the next business day. Otherwise, messages will *generally* receive responses no later than 5:00 PM the second of the next two business days. *If you do not receive a response, this was an oversight, and you should send the message again to the instructor (and teaching assistant(s)).* In all correspondence related to this course, type “PHC 6000:” in the subject line of your message followed by a more specific subject to be discussed in the body of the e-mail message. This will assist Dr. Gurka and the teaching assistants quickly identify messages that relate to the course and facilitate timely feedback.

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>

Remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior. This includes obtaining materials from past iterations of the course.

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.

Online Faculty Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu by clicking on GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available at <https://gatorevals.aa.ufl.edu/public-results/>.

SUPPORT SERVICES

Inclusive Learning Environment

Public health and the health professions are based on the belief in human dignity and 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 experience we provide students and enhances our 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 contact Dr. Gurka or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu.

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, you must register with the Dean of Student's Office (<http://www.dso.ufl.edu>), preferably within the first week of class. The Dean of Student's Office will provide documentation of suggested accommodations for you. Please provide this letter to Dr. Gurka, as the instructor of the course, as soon as possible. Following receipt of the accommodation letter, Dr. Gurka will arrange a time during which she will meet with you to discuss the accommodations needed to overcome barriers to success in the course. Please make sure you provide this letter to Dr. Gurka as soon as possible. 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.

- **U Matter We Care.** Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team, which is staffed by Dean of Students and Counseling Center personnel, can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team

can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center.

- **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 available.
- 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 (352-392-0627 or <https://shcc.ufl.edu/>).
- Crisis intervention is always available 24/7 from the Alachua County Crisis Center (352-264-6789 or <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. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.
