PHC 6001: Principles of Epidemiology in Public Health (3 credit hours)

Syllabus
Spring 2018

Delivery Format: E-Learning in Canvas

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Office hours by appointment.

Course Communication: E-mail is the preferred mode of communication by which to contact Dr. Gurka. Use the e-mail function in Canvas, selecting her and the teaching assistant as recipients. Include “PHC 6001:” in the subject line. Messages sent on business days prior to 5:00 PM will generally receive a response by 11:59 PM EST that day. Otherwise, messages will generally receive responses by 11:59 PM EST the next business day. See Communication Guidelines for more information.

PREREQUISITES
None.

PURPOSE AND OUTCOME

Course Overview
This course is an introduction to epidemiology for students majoring in the health sciences. This course presents the principles and methods of the epidemiologic investigation of health-related events, states, and processes. 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 students will have sufficient understanding to apply such principles in future health work. The course is intended to empower the student to critically read and evaluate his or her public health work.
using epidemiologic principles. This course is not intended to present the epidemiologic aspects of any specific disease or class of diseases.

Course Objectives

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

1. Apply the basic terminology and definitions of epidemiology,
2. Calculate basic epidemiologic measures of frequency and comparisons of frequency 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 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, and
11. Communicate epidemiologic information to lay and professional audiences.

Instructional Methods

1. Readings. Reading assignments from the course textbook are assigned for each module. Additional required reading will include supplemental materials posted to the course website; additional assignments such as manuscripts will be assigned throughout the semester. Students are responsible for material in assigned readings.
2. Lectures (including audio and slides). Lecture material is intended to reinforce concepts presented in the course readings. Students are responsible for the material presented during course lectures.
3. Assessment. A variety of methods will be used to assess understanding of the material including exercises associated with each module and examinations.

What is expected of you?

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

DESCRIPTION OF COURSE CONTENT

Course Schedule

The course is organized into modules, and one module will be covered each week. Weeks for this course are defined as Tuesday through Monday. Assignments are due on Monday at 11:59 PM EST, and examinations will be available Friday – Monday at the end of examination weeks, due Monday at 11:59 PM EST. The course is designed this way to afford students the flexibility to complete coursework and examinations on weekdays or weekends.

NOTE: Week 1 begins Monday, January 8 and ends Monday, January 15. However, due to the January 15th holiday, Module 1 assignments are due Tuesday, January 16th at 11:59 PM EST.

The course schedule with topics, reading assignments, homework assignments, and the examination dates is shown on the next page.
# PHC 6001: Principles of Epidemiology in Public Health

## Spring 2018

### Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Module</th>
<th>Topic</th>
<th>Readings</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>01/08-01/15</td>
<td>1</td>
<td>Start Here Course Orientation</td>
<td>Syllabus</td>
<td>Start Here Exercise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>Introduction to Epidemiology</td>
<td>Text, pages 1-32</td>
<td>Module 1 Exercise</td>
</tr>
<tr>
<td>2</td>
<td>01/16-01/22</td>
<td>2</td>
<td>Measures of Frequency</td>
<td>Text, pages 33-58</td>
<td>Module 2 Exercise</td>
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<tr>
<td>3</td>
<td>01/23-01/29</td>
<td>3</td>
<td>Comparing Frequencies</td>
<td>Text, pages 59-77</td>
<td>Module 3 Exercise</td>
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<tr>
<td>4</td>
<td>01/30-02/05</td>
<td>4</td>
<td>Sources of Public Health Data</td>
<td>Text, pages 79-141</td>
<td>Module 4 Exercise</td>
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<tr>
<td></td>
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<td></td>
<td>Descriptive Epidemiology</td>
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<tr>
<td>5</td>
<td>02/06-02/12</td>
<td></td>
<td>Examination One: Open 02/09 – 02/12/2018 via ProctorU.</td>
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<tr>
<td>6</td>
<td>02/13-02/19</td>
<td>5</td>
<td>Experimental Studies</td>
<td>Text, pages 143-149</td>
<td>Module 5 Exercise</td>
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<td>Text, pages 173-203</td>
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<tr>
<td>7</td>
<td>02/20-02/26</td>
<td>6</td>
<td>Cohort Studies</td>
<td>Text, pages 149-153</td>
<td>Module 6 Exercise</td>
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<td>Text, pages 205-232</td>
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<tr>
<td>8-9</td>
<td>02/27-03/12</td>
<td>7</td>
<td>Case-Control Studies</td>
<td>Text, pages 153-171</td>
<td>Module 7 Exercise</td>
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<td></td>
<td></td>
<td>Text, pages 233-263</td>
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<tr>
<td>10</td>
<td>03/13-03/19</td>
<td>8</td>
<td>Bias</td>
<td>Text, pages 265-311</td>
<td>Module 8 Exercise</td>
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<tr>
<td>11</td>
<td>03/20-03/26</td>
<td>9</td>
<td>Examination Two: Open 03/23 – 03/26/2018 via ProctorU.</td>
<td></td>
<td></td>
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<tr>
<td>12</td>
<td>03/27-04/02</td>
<td>10</td>
<td>Critical Review of Epi Studies</td>
<td>Text, pages 363-388</td>
<td>Module 9 Exercise</td>
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<tr>
<td>13</td>
<td>04/03-04/09</td>
<td>11</td>
<td>Epi Approach to Causation</td>
<td>Text, pages 389-415</td>
<td>Module 10 Exercise</td>
</tr>
<tr>
<td>14</td>
<td>04/10-04/16</td>
<td>12</td>
<td>Screening in Public Health Practice</td>
<td>Text, pages 417-446</td>
<td>Module 11 Exercise</td>
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<tr>
<td>15</td>
<td>04/17-04/23</td>
<td>13</td>
<td>Ethics in Epi Research</td>
<td>Text, pages 447-465</td>
<td>Module 12 Exercise</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td>Examination Three: Open 04/27 – 04/30/2018 via ProctorU.</td>
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</tbody>
</table>
Course Materials and Technology


Completion of assigned readings from this text is mandatory. Lectures will augment and reinforce important aspects of these reading materials. However, students are still responsible for any content from the assigned readings and exercises that is NOT covered in a lecture presentation. Examinations may cover any course content covered in assigned readings, exercises, and lectures.

The course website is located in Canvas. On the course site, the week’s modules will be available at 9:00 AM each Tuesday. The module will consist of lecture slides and audio. In addition, there may be supplemental reading such as a manuscript posted to the course website as well as links to assignments and additional resources. The announcement and conference features will also be utilized.

Students must have a working webcam and microphone to participate in this course. Consult the course website in the Getting Started section for other computing needs and specifications.

For technical support for this class, please contact the UF Help Desk at:
- Available 24 hours a day, 7 days a week
- (352) 392-HELP - select option 2
- helpdesk@ufl.edu (email)
- helpdesk.ufl.edu (website)

ACADEMIC REQUIREMENTS AND GRADING

Assignments

Exercises – points will vary by assignment (200 total points; 40% of the course grade)

There is an exercise associated with each module that students will complete throughout the course. The exercises are intended to be active-learning opportunities that foster engagement with the course material during which students can practice applying the principles presented in the course. Students are encouraged, and at times required, to work together on exercises either through discussion sections of Canvas or in-person, but each student's responses must be in his or her own words. Exercises can be found by navigating to Assignments from the navigation bar or through the links included in each Module. Assignments are due on Mondays by 11:59 pm EST at the end of each week they are assigned. For most exercises, a self-assessment of the original submission will be due the week following the module.

The exercises will vary if format throughout the semester. Formats include, but are not limited to, problem sets, group activities, participation in discussions, and on-line quizzes. Any one exercise can contain different types of activities – e.g., a discussion board and an online quiz. Exercises will not be critically assessed by the instructional staff, but must be completed and submitted, on time, to earn all points for each exercise. The instructor and/or TA will determine whether an assignment has been sufficiently completed. At the time of assignment, each exercise will provide the specific requirements for the assignment and its submission as well as a rubric for how many points can be earned for successful completion and submission of the exercise. In addition, students in the course will critically assess the content of their own exercises. Rubrics and solution sets will be provided for this activity, and submission of the self-assessment may be required to earn the remaining possible points for the exercise. This will be specified in the exercise instructions with the due date for the assessment submission. Late exercise submissions and assessments will not be accepted.
There is an exercise associated with the Start Here section, a quiz regarding the course website (view the video in the Start Here section) and syllabus. You will need to take the quiz repeatedly until you score 20 out of 20 points. At any time during the semester, corrections and/or addenda may be made or added to the course syllabus at the discretion of the instructor. Any changes to the syllabus will be promptly communicated to students via email and published on the course website, taking effect immediately from the time of communication until the end of the course or the next syllabus update. Dates for examinations and the way in which the course grade is calculated will not change.

Examinations – 100 points each (300 total points; 60% of the course grade)

Three closed-book, proctored examinations will be administered in this course (see course schedule). The examinations will consist of 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. Calculators can be used during the examination, and you will be allotted two hours to complete the exam. See the section Examination Proctoring Service below and the ProctorU link on the Canvas site for more information on computing requirements and registration for examinations.

Grading

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Due Date</th>
<th>Points (% of total grade)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercises</td>
<td>See Schedule Above &amp; Assignment</td>
<td>200 (40%)</td>
</tr>
<tr>
<td>Examinations</td>
<td>See Schedule Above</td>
<td>300 (60%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>500</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Total Points Earned</th>
<th>% of Total Points Earned</th>
<th>Letter Grade</th>
<th>Grade Point Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 465</td>
<td>≥ 93%</td>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>450 – 464</td>
<td>90 – 92%</td>
<td>A-</td>
<td>3.67</td>
</tr>
<tr>
<td>435 – 449</td>
<td>87 – 89%</td>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>415 – 434</td>
<td>83 – 86%</td>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>400 – 414</td>
<td>80 – 82%</td>
<td>B-</td>
<td>2.67</td>
</tr>
<tr>
<td>385 – 399</td>
<td>77 – 79%</td>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>365 – 384</td>
<td>73 – 76%</td>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>350 – 364</td>
<td>70 – 72%</td>
<td>C-</td>
<td>1.67</td>
</tr>
<tr>
<td>335 – 349</td>
<td>67 – 69%</td>
<td>D+</td>
<td>1.33</td>
</tr>
<tr>
<td>315 – 334</td>
<td>63 – 66%</td>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>300 - 314</td>
<td>60 – 62%</td>
<td>D-</td>
<td>0.67</td>
</tr>
<tr>
<td>&lt; 300</td>
<td>&lt; 60%</td>
<td>E</td>
<td>0.00</td>
</tr>
</tbody>
</table>

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 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.

**Examination Policy**

Refer to the *Assignments* section for more detailed information regarding the composition of the course examinations. Each student will need to schedule three times during which to take the three course examinations. Each of these three times must be scheduled within the window of time during which each respective examination is open. Read more about the on-line proctoring services below, and refer to the course website for additional resources related to ProctorU.

**Examination Proctoring Service**

The online MPH program will be using ProctorU for online proctoring services. ProctorU will be used by all students taking this course regardless of whether you are an on-campus student or not. You can access ProctorU at www.proctoru.com. Detailed guidelines for this proctoring system are available on the 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 examinations with ProctorU starting the second week of the semester and no later than 3 days prior to an exam.
- Examinations may be scheduled at any time during the 24 hours of the four days during which the examination is open; however, technical support will only be available from 8:00 am EST – 11:59 pm EST. Examinations will CLOSE at the posted time in the course, so do NOT schedule an exam appointment with ProctorU that will run past 11:59 pm EST on the last day of the examination, 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 your exam time will be limited to only 59 minutes.
- Exams scheduled AFTER midnight (EST) will not have access to program assistance during your exam – it is highly recommended that you schedule your exams between 8:00 am EST and 9:00 pm EST on one of the four examination days.
- 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 verify your identity.
- Please plan for three hours for completing the examination to allow time for interfacing with ProctorU.
- Proctoring fees are prepaid. For exams scheduled less than 3 days before an exam, you will be charged a $5.00 late fee.

**Policy Related to Make-up Examinations or Other Work**

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 official closing time may be permitted. Failing to schedule an examination time with ProctorU will not be considered a valid reason for requesting to take a late examination. At Dr. Gurka’s 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.

Note that any requests for make-up examinations 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 Dr. Gurka and Ms. Hardemon (hardemont@ufl.edu) within 24 hours of the technical difficulty if you wish to request a make-up.

No exercise submissions will be accepted past the deadline for any reason. Students are advised to access exercise instructions early each week and plan accordingly to ensure timely submission of exercises. It is recommended that students not wait until the last day to submit exercises to account for unforeseen circumstances that may arise. Students may choose to submit partially completed exercises, resubmitting files as they are updated, to ensure at least partial credit is earned.

Policy Related to Required Class Attendance

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.

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

Professional and respectful behavior is expected of all students participating in this online course. Be aware that all exercises are due by the specified date and time. 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/or inability to participate in examinations due to poor internet connectivity is unacceptable. Therefore, refrain from waiting until the due date to submit your assignments or take examinations as it will be difficult to impossible to accommodate your requests because of technical problems arising from your equipment. Other guidance regarding etiquette and expectations for course behavior is discussed on the course website.

Communication Guidelines

E-mail is the preferred mode of communication by which to contact Dr. Gurka. Use the e-mail function in Canvas, selecting both the instructor and teaching assistant as the recipients. Messages sent on business days prior to 5:00 PM will generally receive a response by 11:59 PM EST that day. Otherwise, messages will generally receive responses by 11:59 PM EST the next business day. If you do not receive a response, this was an oversight, and you should send the message again to the instructor and teaching assistants. In all correspondence related to this course, please type “PHC 6001:” 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 assistant in quickly identifying 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.

Mid-Course Evaluation

Students in this course will be provided with the opportunity to provide feedback on the course mechanics and their learning experience. A survey will be made available on the course website in Canvas to solicit such feedback. This evaluation will occur as a way to identify ways in which the course may be improved for this cohort during the semester.

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. Constructive feedback will continue to be utilized to make improvements to the course for future iterations. 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/.

SUPPORT SERVICES

Inclusive Learning Environment

Public health and 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 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 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) within the first week of class. The Dean of Student’s Office will provide documentation of accommodations to you, which you must then give to Dr. Gurka, as the instructor of the course, to receive accommodations. Please make sure you provide this letter to Dr. Gurka 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.

- You 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.