University of Florida
College of Public Health & Health Professions Syllabus
Course Number: PHC6000 (3 credit hours)
Semester: Spring 2017
Delivery Format: On-Campus
Thursday, 9:35am-12:35pm
Course Website: E-Learning in Canvas

Instructor Name: Lusine Yaghjyan, MD, MPH, PhD
Room Number: LG 110 A/B, McKnight Brain Institute (except 03/02/2017 – on this day we will use Communicore room C1-4)
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Office Hours: by appointment (2004 Mowry Road, Room 4216)
Class TA: TBA

Prerequisites
Knowledge of basic concepts in epidemiology and study designs: PHC 6001 and PHC 6052 or the equivalent.

PURPOSE AND OUTCOME

Course Overview
This course extends the concepts and methods of epidemiology from PHC 6001 (Principles of Epidemiology). Research design and analytic reasoning are emphasized throughout the class. Because epidemiology methods and causal inference are the most complex in observational studies, the course uses examples and methods primarily from this kind of research. Randomized trials and community experiments are included as aspects of methods issues, however. The course provides an understanding of the methods of epidemiological study designs and their analyses including issues of bias, confounding, and effect-modification.

Course Objectives and/or Goals
The goal of this class is to provide a strong background in analytic reasoning and research design, study execution, analysis, and result interpretation. Upon successful completion of the course, students should be able to

1. Demonstrate and apply the principles of descriptive and analytic epidemiology.
2. Identify and select among research designs for specific scientific questions.
3. Identify and integrate the principles of causal inference to planning and reviewing research studies.
4. Critically appraise published research studies for their strengths and weaknesses.
5. Interpret, apply, and analyze methods regarding measures and measurements, error, confounding and effect modification, sampling, and research generalizability.
6. Communicate epidemiology methods in writing and orally.

DESCRIPTION OF COURSE CONTENT

Topical Outline/Course Schedule

Class	Topic	Readings	Problem set assigned	Problem set due
Week 1. 01/05/17	Course overview, review & extension to measures of disease occurrence	Szklo chap 2; Gordis chap 3-4, 6 Becker N, Altenburg HP, Stegmaier C, Ziegler H. Report on trends of incidence (1970-2002) of and mortality (1952-2002) from cancer in Germany. J Cancer Res Clin Oncol.		

Class	Topic	Readings	Problem set assigned	Problem set due
		2007;133(1):23-35.		
Week 2. 01/12/17	Extension to measures of disease occurrence; descriptive epidemiology	Szklo chap 1.1-1.3 Wheeler BW, Allen J, Depledge MH, Curnow A. Radon and skin cancer in southwest England: an ecologic study. Epidemiology. 2012;23(1):44-52	Problem set #1	
Week 3. 01/19/17	Analytical Epidemiology: Cohort studies & Case-control studies: methods and issues. Other designs	Szklo chap 1.4; Gordis 9-10 Colditz GA, Manson JE, Hankinson SE. The Nurses' Health Study: 20-year contribution to the understanding of health among women. J Womens Health. 1997;6(1):49-62. Breslow N. Design and analysis of case-control studies. Annu Rev Public Health. 1982;3:29-54.		Problem set #1
Week 4. 01/26/17	Measures of associations: Relative Risk, Odds Ratios, Attributable Risk, and PAR	Szklo chap 3; Gordis chap 11		
Week 5. 02/02/17	Causal inference	Gordis chap 14 Glass TA, Goodman SN, Hernan MA, Samet JM. Causal inference in public health. Annu Rev Public Health. 2013;34:61-75 Rothman KJ, Greenland S. Causation and causal inference in epidemiology. Am J Public Health. 2005;95 Suppl 1:S144-50.	Problem set #2	
Week 6. 02/09/17	Bias: Introduction, definition & issues in bias. Confounding: concepts and evaluation	Szklo chap 4.1-4.3; Gordis chap 15 Slattery ML, Edwards SL, Palmer L, Curtin K, Morse J, Anderson K, et al. Use of archival tissue in epidemiologic studies: collection procedures and assessment of potential sources of bias. Mutat Res. 2000;432(1-2):7-14		Problem set #2
Week 7. 02/16/17	Controlling confounding with adjustment, stratification and quantitative modeling; review of homework #3 directions	Szklo chap 5, 7.1-7.4; Gordis chap 15	Problem set #3 (article critique)	
Week 8. 02/23/17	Interaction: definition and strategies of evaluation	Szklo chap 6 Gordis chap 15 Kamangar F. Effect modification in epidemiology and medicine. Archives of Iranian medicine. 2012;15(9):575-82		
Week 9. 03/02/17	In class exam 1	Midterm 3 hours, in-class. Bring a calculator		
SPRING BREAK March 4th-March 12th				
Week 10. 03/16/17	Identifying the roles of genetic and	Gordis chap 16	Problem set #4	Problem set #3

Class	Topic	Readings	Problem set assigned	Problem set due
	environmental factors	Nurminen M, Nurminen T, Corvalan CF. Methodological issues in epidemiologic risk assessment. Epidemiology. 1999;10(5):585-93		
Week 11. 03/23/17	Screening evaluation in epidemiology	Szklo chap 4.4, Gordis chap 18	Problem set #5	Problem set #4
Week 12. 03/30/17	Communicating results of epidemiologic studies. Reading & writing the scientific literature; Meta-analysis	Szklo chap 9, Gordis chap 20 Goldberg RJ. Enhancing peer review of scientific manuscripts. Arch Intern Med 1997;157:380-382. Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009) Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7). Dixon N. Writing for publication – a guide for new authors. Intl J Qual Health Care 2001;13(5):417-421. Denison HJ, Dodds RM, Ntani G, Cooper R, Cooper C, Sayer AA, et al. How to get started with a systematic review in epidemiology: an introductory guide for early career researchers. Archives of public health 2013;71(1):21		Problem set #5
Week 13. 04/06/17	Review for the final exam			
Week 14. 04/13/17	Exam 2	Final exam 3 hours, in-class. Bring a calculator		

Course Materials and Technology

Text/Readings
No required text.

Recommended: Szklo, Moyses and Nieto, F. Javier. *Epidemiology: Beyond the Basics, Third Edition*, Jones and Bartlett, Boston, MA, 2007.
Supplemental Textbooks (Optional): Gordis, Leon. Epidemiology, Third Edition. Elsevier Saunders, Philadelphia, PA, 2004.

Canvas

Canvas is accessible at lss.at.ufl.edu or through my.ufl.edu. You must have a valid Gatorlink ID and password. For assistance, call the UF Help Desk at 392-HELP.

Required: All materials will be posted in Canvas. Students are responsible for all course material, including required readings prior to each class. Readings will be assigned from textbook chapters, historical or current scientific research literature.
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

ACADEMIC REQUIREMENTS AND GRADING

Course Requirements

1. Read assigned textbook sections and additional reading before lectures;
2. Completed 5 assignments throughout the semester;
3. Take "In-Class Exam 1" in Week 8 and "In-Class Exam 2" at the end of the semester.

Class participation assessment will include attendance and participation in discussions. Having the correct answer is not graded (you will be presented with challenges that are not fair to grade, since they extend material from class). But lack of preparation and non-attendance will result in a one-point reduction in your 5% class participation grade for each occasion it occurs. This practice is not intended to intimidate, or to penalize students who are prepared for class. If you are concerned about being required to answer questions orally in class, please discuss this with me privately and I will make reasonable accommodations.

The In-class exams will include multiple choice questions as well as require written answers with some calculations needed. The style of these calculation problems will be very similar to the problem sets and in-class practices. You will need to bring a calculator and will not be allowed to use any other devices. If you need a restroom break, you will have to leave your cell phone in the classroom, either with TA or on the desk. You will be expected to return within 5 minutes. If you fail to comply with these directions, you will not be allowed to continue your exam.

Homework problem sets. Homeworks are due by the start of the class time as on the day of deadline, as listed in the table below. Late submission will receive an automatic score of 0 unless I have given prior approval. Failing to try each problem and/or failing to contact the TA or me if you are having trouble with the problem set can result in a grade of "0". **All completed assignments need to be uploaded as Word files via Canvas. Files uploaded in a different format will not be graded.**

Problem sets and exams are not graded for perfect grammar or spelling, but making your answer clear is important. Inexact, unclear language or multiple answers (among which one might be right) will receive reduced credit on the exam. Problem sets and exams need to be legible to assure you are awarded full credit for your answers. When we are in doubt, TA and I will each take a turn at deciphering your answers, but if neither of us can read an answer, we cannot award full credit. The practice of epidemiology is enhanced by clear communication and because this is a graduate school course, competent writing *is important*.

Grading

Grading will be based on attendance, class participation, homework assignments, and exams. Throughout the course, you will also have an opportunity to earn extra points by correctly answering warm up questions at the start of the class. These extra points will be applied at the end of the course to your homework assignments and exams.

Assignment	Due date	Points or % of final grade
Homework 1	01/19/17	10% (20 points)
Homework 2	02/09/17	10% (30 points)
Mid-term exam	03/02/17	20% (100 points)
Homework 3	03/16/17	10% (50 points)
Homework 4	03/23/17	10% (40 points)
Homework 5	03/30/17	10% (20 points)
Final exam	04/13/17	25% (100 points)
Attendance and in-class participation	NA	5% (10 points)

This course will be graded following the policies described here
http://gradcatalog.ufl.edu/content.php?catoid=4&navoid=907&hl=grades&returnto=search#grades

Percentage or points earned in class	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 equivalent	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	WF	I	NG	S-U
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

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

Make-up work will be allowed by the course instructor on an individual basis after an excused absence (see above). Students should consult with the professor for new deadlines for assignments. Please consult the university guidelines for more information on makeup policies:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.

Policy Related to Required Class Attendance

This is an interactive class and students are expected to be present and to participate in all class sessions. Students who know they will need to miss a class session should discuss this with the instructor prior to the date of the class, or on the day of the absence for illness or emergency. According to the UF Catalog (link below) "In general, acceptable reasons for absences from class include illness, serious family emergencies, special curricular requirements, military obligation, severe weather conditions, religious holidays, and participation in official University activities. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused. Other reasons also may be approved."

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

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STUDENT EXPECTATIONS

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.

Citations and Plagiarism

The two key purposes of citation are to: 1) give appropriate credit to the authors of information, research findings, and/or ideas (and avoid plagiarism), and 2) facilitate access by your readers to the sources you use in your research.

Quotations: When directly quoting an outside source, the borrowed text, regardless of the amount, must be surrounded by quotation marks or block quoted. Quoted text over two lines in length should be single-spaced and indented beyond the normal margins. Every quote must include a source—the author, title, volume, page numbers, etc.—whether an internal reference, footnote, or endnote is used in conjunction with a bibliography page.

Paraphrasing or Citing an Idea: When summarizing an outside source in your own words or citing another person's ideas, quotation marks are not necessary, but the source must be included. This includes, but is not confined to, personal communications from other students, faculty members, experts in the field, summarized ideas from published or unpublished resource, and primary methods derived from published or unpublished sources. Use the general concept of "when in doubt – cite."

Plagiarism is a serious violation of the academic honesty policy of the College. If a student plagiarizes others' material or ideas, UF Policies on Honesty and honor code violations, noted above, will be followed.

Generally speaking, the three keys of acceptable citation practice are: 1) thoroughness, 2) accuracy, and 3) consistency. In other words, be sure to fully cite all sources used (thoroughness), be accurate in the citation information provided, and be consistent in the citation style you adopt. All references should include the following elements: 1) last names along with first and middle initials; 2) full title of reference; 3) name of journal or book; 4) publication city, publisher, volume, and date; and 5) page numbers referenced. When citing information from the Internet, include the WWW address at the end, with the "access date" (i.e., when you obtained the information), just as you would list the document number and date for all public documents. When citing ideas or words from an individual that are not published, you can write "personal communication" along with the person's name and date of communication.

Use of unauthorized assistance resources

As graduate students at the UF, you are expected to present your own work for grading. Unauthorized sources of help, including commercially available software and services are not allowed. Even though the students will not be graded on their grammar, it is expected that as graduate students you will have sufficient English language skills to convey your thoughts in organized and understandable manner. If the assignment is unreadable, it will not be graded and will be assigned zero points. Use of unauthorized assistance sources will result in zero points on the written assignment and a report to the Dean of Student's Office. If English is your Second Language, you may visit the UF Writing Program Website to learn about available help.

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/.

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 must 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.

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 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. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.