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| Course Title: | Epidemiology of Chronic Disease |
| Course Number: | EPID 0652 |
| Course Prerequisite(s): | PHCO 0502, Principles and methods of Epidemiology PHCO 0504, Introduction to Biostatistics |
| Course Location: | Remotely via Zoom https://rutgers.zoom.us/j/98015489127?pwd=RFptQ1JlQ2tIUkthTnFHZTdPUFdOdz09 |
| Course Date & Time: | September 6 th to December 21 st Wednesday; 3:00pm – 5:00 pm |
| Course Instructor: | Nisha Jani PhD, MPH nisha.jani@rutgers.edu |
| Office Hours: | Friday 10:00am – 11:00am |
| Course Assistant: | John Aremu DDS, MPH Jba57@sph.rutgers.edu |
| Office Hours: | TBD |
| Course Website: | https://rutgers.instructure.com/courses/205405 |
| Required Text: | Chronic Disease Epidemiology, Prevention, and Control, 4 th edition Patrick L. Remington, MD, MPH, Ross C. Brownson, PhD, and Mark V. Wegner, MD, MPH ISBN: 978-0-87553-277-6 OR the 2010 Third Edition (either edition is acceptable). Students can download a free eBook copy of the third edition using the Rutgers Library. |
| Link to 3rd ed eBook: | https://bit.ly/2YPG5ZM |
| Other Resources: | Supplemental readings will be assigned |

Course Description: In this course, the epidemiology and available methods of prevention are reviewed for a series of prominent noninfectious diseases. The course will start with discussions of major concepts in chronic disease epidemiology, research methods utilized in the field, and applications of those methods for several chronic diseases such as cancer, cardiovascular disease, diabetes, and respiratory conditions. The majority of lectures will focus on the critical evaluation of current knowledge regarding the epidemiology of specific chronic diseases, including biological mechanisms, risk factors and major studies. The principle goal of

this course is to provide a broad overview of the field, and to document basic knowledge and skills needed to understand and critically evaluate published research

Competencies Addressed:

1. Critique epidemiologic literature, assess its strengths and weaknesses, and determine if conclusion(s) are supported
2. Formulate a specific hypothesis and determine an appropriate study design and analysis plan
3. Conduct independent epidemiologic literature reviews and summarize studies using qualitative and quantitative techniques
4. Appropriately analyze and interpret epidemiologic data, including large national and state level datasets
5. Communicate and present study findings to professional audiences

Please visit the Concentration webpages on the School of Public Health's website at sph.rutgers.edu for additional competencies addressed by this course for other degrees and concentrations

Course Objectives: By the completion of this course, students will be able to:

- A. Describe the epidemiology and main available methods of prevention of several chronic diseases
- B. Clearly explain the main epidemiological study designs, the relationships between them and their strengths and limitations
- C. Use the public health and medical research literature to formulate and support a hypothesis concerning the epidemiology or prevention of a chronic disease
- D. Design and critique an epidemiological study to test a well-defined hypothesis
- E. Conduct a systematic review to evaluate the and summarize the findings of all relevant individual studies over a specific health-related issue
- F. Critically evaluate articles in the chronic disease epidemiology literature

Course Requirements and Grading:

- This is a fully synchronous, online course that will be completed in fifteen weeks over the Fall 2022 semester.
- We will cover fifteen modules/units during this course. Every week you will be completing one module.
- Each week will run from Monday (12:01 AM) to Sunday (11:59 PM).
- Each week students are required to read at least of chapter from the textbook along with additional assigned resources when applicable

Class Participation is required. Students will be expected to attend class virtually via zoom and engage in class discussions. **Attendance will be taken every class.** When applicable, **In-class activities and/or discussions** will take place after lecture and will be graded based on completion and effort as part of the participation grade.

Critical Thinking & Evidence-Based Practice Modules: Students are required to complete two full modules on Critical Thinking & Evidence-Based Practice. All reading material are required. Students are required to finish all module related quizzes by each module's respective due date. Students are expected to work independently.

Literature Critiques: Students are required to conduct formal Critiques of eight pre-assigned peer-reviewed articles. All critique questions are standardized and will be available on Canvas. Critique submission will be limit to two pages of single-spaced text only, with Times New Roman 12 pts font, 1" margins. I encourage you to work together on sharing ideas, since you all will be working on the same paper. However, **each student must submit his/her own original critique.** Each critique will be graded out of 100 points.

Late critique submissions will result in the following deductions:

- 15% automatic deduction if submitted within 24 hours following the due date/time
- 30% automatic deduction if submitted within 48 hours following the due date/time
- Critique will **NOT** be accepted **after 48 hours** following the due date/time and canvas submission will be closed.

Class Presentations: Students will work in groups to prepare and deliver a presentation of a pre-assigned paper.

Final Project & Presentation: Class will be divided into groups. Each group will conduct a systematic review of a pre-assigned topic. Each group will be required to present their findings to class. Each group will be asked to a final systematic review manuscript of 12-15 pages (submission details will be provided in class). No late projects will be accepted.

Final letter grades are based on the total average weighted percentage as shown below:

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| 1. Class Presentations..... | 5% |
| 2. Critical Thinking & Evidence-Based Practice Modules..... | 5% |
| 3. Literature Critiques (8) | 35% |
| 4. Final Project & Presentation..... | 45% |
| 5. Class Participation..... | 10% |

Grading scale:

Grading Policy: 94 – 100 A
90 – <94 A-
87 – <90 B+
84 – <87 B
80 – <84 B-
77 – <80 C+
70 – <77 C
<70 F

| Competency | Course Objectives(s) | Lessons | Assessment(s) |
|------------|----------------------|---------------------------|------------------------------|
| 1 | a, b, f | 1, 2, 3, 4, 5, 6, 7, 8, 9 | Literature Critiques |
| 2 | c, f, d | 4, 8 | Modules |
| 3 | d, e | 10, 11, 12, 13, 14, 15,16 | Final Project |
| 4 | d, e | 10, 11, 12, 13, 14, 15,16 | Final Project & Presentation |
| 5 | C | 2, 3, 4, 5, 6, 7, 8, 9,10 | Presentation |

Course Schedule:

| Week | Lecture | Reading 4th Edition | Reading 3rd Edition | Assignments | Due (by 11:59 PM) | |
|---|------------------------------|--|------------------------|----------------|---|-------|
| PART I: Overview of Chronic Disease Epidemiology | | | | | | |
| Week 1 | (9/6-9/11) Class 9/7 | Introduction to Chronic Disease Epidemiology | CH 1 | CH 1 | Honor Code Acknowledgement | 9/11 |
| Week 2 | (9/12-9/18) Class 9/14 | Chronic Disease Epidemiology Methods I | CH 2 | CH 2 | | |
| Week 3 | (9/19-9/25) Class 9/21 | Chronic Disease Epidemiology Methods II <i>In class Presentation 1</i> | CH 4 | CH 3 | Critique 1 | 9/19 |
| PART II: Risk Factors and Midstream Chronic Conditions | | | | | | |
| Week 4 | (9/26-10/2) Class 9/28 | Diet and Nutrition Physical Activity <i>In class Presentation 2</i> | CH 8 CH 9 | CH 6 CH 7 | Critique 2 Critical Thinking Module | 9/26 |
| Week 5 | (10/3-10/9) Class 10/5 | Tobacco Use Alcohol Use <i>In class Presentation 3 and 4</i> | CH 7 CH 10 | CH 5 CH 8 | Critique 3 (Select 1 paper) | 10/3 |
| Week 6 | (10/10-10/16) Class 10/12 | High Blood Pressure Dyslipidemia <i>In class Presentation 5 and 6</i> | CH 13 CH 14 | CH 11 CH 12 | Critique 4 (Select 1 paper) | 10/10 |
| Week 7 | (10/17-10/23) Class 10/19 | Obesity <i>In class Presentation 7</i> | CH 11 | CH 9 | Critique 5 | 10/17 |
| PART III: Major Chronic Diseases | | | | | | |
| Week 8 | (10/24-10/30) Class 10/26 | Chronic Respiratory Disease <i>In class Presentation 8</i> | CH 12 | CH 10 | Critique 6 Evidence-Based Practice Module | 10/24 |
| Week 9 | (10/31-11/6) Class 11/2 | Cancer <i>In class Presentation 9</i> | CH 15 | CH 13 | Critique 7 | 10/31 |
| Week 10 | (11/7-11/13) Class 11/9 | Diabetes <i>In class Presentation 10</i> | CH 16 | CH 14 | Critique 8 Start Final Project | 11/7 |
| Week 11 | (11/14-11/20) Class 11/16 | Cardiovascular Disease | CH 17 | CH 15 | | 11/14 |
| Week 12 | (11/21-11/27) No Class | Thanksgiving Holiday | | | | |
| Week 13 | (11/28-12/4) Class 11/30 | Mental Disorders | CH 18 | CH 16 | Final Project First Deliverable | 11/28 |
| Week 14 | (12/5-12/11) Class 12/7 | Neurological Disorders | CH 19 | CH 17 | Final Project Second Deliverable | 12/5 |
| Week 15 | (12/12-12/18) Class 12/14 | Final Presentations | CH 19 | CH 19 | | |
| Week 16 | (12/19-12/21) Class 12/21 | Final Presentations | CH 22 | CH 20 | | |
| Final Project due December 21, 2022 | | | | | | |

Learning Management System: Canvas will be used extensively throughout the semester for course syllabus, assignments, announcements, communication and/or other course-related activities. It is the student's responsibility to familiarize themselves with Canvas and check it regularly. If you have difficulties accessing Canvas, please inform the instructor and Canvas Support (help@canvas.rutgers.edu). Canvas is accessible at canvas.rutgers.edu.

School of Public Health Honor Code: The School of Public Health Honor Code is found in the School Catalog (sph.rutgers.edu/academics/catalog.html). Each student bears a fundamental responsibility for maintaining academic integrity and intellectual honesty in his or her graduate work. For example, all students are expected to observe the generally accepted principles of scholarly work, to submit their own rather than another's work, to refrain from falsifying data, and to refrain from receiving and/or giving aid on examinations or other assigned work requiring independent effort. In submitting written material, the writer takes full responsibility for the work as a whole and implies that, except as properly noted by use of quotation marks, footnotes, etc., both the ideas and the works used are his or her own. In addition to maintaining personal academic integrity, each student is expected to contribute to the academic integrity of the School community by not facilitating inappropriate use of her/his own work by others and by reporting acts of academic dishonesty by others to an appropriate school authority. It should be clearly understood that plagiarism, cheating, or other forms of academic dishonesty will not be tolerated and can lead to sanctions up to and including separation from the Rutgers School of Public Health.

Students with Disabilities: Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student must apply for Services by first completing a Registration Form with the Rutgers Office of Disability Services (ODS) at ods.rutgers.edu. The student will also be required to participate in an ODS intake interview and provide documentation. If reasonable accommodations are granted, ODS will provide you with a Letter of Accommodations which should be shared with your instructors as early in your courses as possible.

Commitment to Safe Learning Environment: The Rutgers School of Public Health is committed to helping create a safe learning environment for all students and for the School as a whole. Free expression in an academic community is essential to the mission of providing the highest caliber of education possible. The School encourages civil discourse, reasoned thought, sustained discussion, and constructive engagement. Provocative ideas respectfully presented are an expected result. An enlightened academic community, however, connects freedom with responsibility. The School encourages all students to disclose any situations where you may feel unsafe, discriminated against, or harassed. Harassment or discrimination of any kind will be not tolerated and violations may lead to disciplinary actions.

Reporting Discrimination or Harassment: If you experience any form of gender or sex-based discrimination or harassment, including sexual assault, sexual harassment, relationship violence, or stalking, know that help and support are available. You may report such incidents to the [RBHS Title IX Office](#) or to the School of Public Health's [Office of Student Affairs](#). Rutgers University has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. If you experience any other form of discrimination or harassment, including racial, ethnic, religious, political, or academic, please report any such incidents to the School's [Office of Student Affairs](#). The School strongly encourages all students to report any incidents of discrimination or harassment to the School. Please be aware that all Rutgers employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers as listed in Appendix A to [Policy 10.3.12](#)) are required to report information about such discrimination and harassment to the School and potentially the University. For example, if you tell a faculty or staff member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty or staff member must share that information with the [RBHS Title IX Coordinator](#). If you wish to speak to a confidential employee who does not have this reporting responsibility, you can find a list of resources in Appendix A to University [Policy 10.3.12](#). For more

information about your options at Rutgers, please visit [Rutgers Violence Prevention and Victim Assistance](#).

Graduate Student Computer Policy: Students are required to possess a personal laptop, no older than approximately two years, that must meet minimum requirements which may be found online at: sph.rutgers.edu/student-life/computer-support.html

Policy Concerning Use of Recording Devices and Other Electronic Communications Systems:

When personally owned communication/recording devices are used by students to record lectures and/or classroom lessons, such use must be authorized by the faculty member or instructor who must give either oral or written permission prior to the start of the semester and identify restrictions, if any, on the use of mobile communications or recording devices.

Policy Concerning Use of Turnitin: Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com (directly or via learning management system, i.e. Canvas) for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site. Students who do not agree should contact the course instructor immediately.

Withdrawal/Refund Schedule: Students who stop attending their course(s) without submitting a completed [Add/Drop Course](#) form will receive a failing grade. Furthermore, students dropping to zero credits for the semester are considered withdrawn and must submit a completed [Leave of Absence](#) form from the School of Public Health's Office of Student Affairs. The School of Public Health refunds tuition only. Administrative and technology fees are non-refundable. You may find the Withdrawal/Refund Schedule on the School of Public Health website at: sph.rutgers.edu/academics/academic-calendar.html

Special Circumstances During COVID-19 (For Fall 2021)

The School of Public Health recognizes that students may experience challenges or be negatively impacted due to the COVID-19 pandemic, mental and emotional health toll from systemic racism, altered personal and professional obligations, and other crises existing at the moment in our local, national, and global communities. Students are encouraged to discuss these challenges and circumstances with their instructor, if they feel they may need additional support or temporary accommodations at the beginning or during this course. The course instructor may consider making reasonable temporary adjustments depending on the student's situation. If additional support is needed, students may reach out to the [Office of Student Affairs](#) (studentaffairs@sph.rutgers.edu) or any of the appropriate referral resources listed on the [Student Connect Canvas page](#).

Syllabus Addendum: Remote Learning Policies – FOR REMOTE COURES

All students are expected to adhere to the following policies.

General: Log into Zoom using your Rutgers NetID and sign-in with your full first name and last name as listed on the class roster. (If you use a different name than what is listed on the class roster, please email the instructor in advance of the class or send a private Chat message.) Using your full name allows the instructor to know who is in attendance and to quickly sort students into their groups when needed. Users who do not log into Zoom using their Rutgers NetID may have trouble accessing the Zoom classroom.

Video: ***Please turn on your video when possible.*** We recognize that this isn't always easy, but this will help to build our class community. Seeing the faces of your classmates more closely duplicates the typical in-person learning experience and may shift your mindset into more focus and attention. Seeing each other can also provide each of us with positive social interactions.

- If you're unable to find an environment without a lot of visual distractions or prefer to not show your living space as a background, feel free to use a virtual background (several virtual background images created by the School of Public Health are available in the [Student Connect Canvas page](#)).
- To save bandwidth, there may be times during class when the instructor asks students to turn off videos.
- Add a photo to your Zoom profile. (Then in times when videos are off, we'll see photos of everyone rather than an empty box.)
- If you have limited internet bandwidth or other issues impacting your video use, please inform the instructor.

Audio: Mute your microphone when you are not talking. This helps eliminate background noise.

- Use a headset, if possible. If you own headphones with a microphone, please use them. This improves audio quality.
- Be in a quiet place, if possible. Turn off any music, videos, etc. in the background.

Chat: Stay on topic and be respectful. Use the chat window for questions and comments that are relevant to class.