Undergraduate Course Syllabus

Course Information
Course Title: Epidemiology
Course Number: HSC 3300 90150
Term and Year: Fall 2017
Credit Hour: 3
Course Format: Online
Course Prerequisite, Co-requisite, or Other Requirement: MTH 2310 or equivalent

Instructor Information
Full Name: Dr. Stephen Shore
Email Address: s.shore@northeastern.edu
(Virtual) Office Hours: phone: 707-225-8568. You are NOT bothering me, so call. If I am not in, leave a voice mail and send me an email. I will respond within 24 hours. (if I am home, I will answer)

Course Description
Introduces the principles, concepts, and methods of population based epidemiology - the study of patterns and determinants of disease in different populations. Topics include the dynamic behavior of disease, measures of disease frequency and effect, uses of rates and proportions and other statistics to describe the health of populations, epidemiologic study designs, and bias in investigating the extent of disease problems and the associations between risk factors and disease outcomes.

Expectations
- Workload
  - One (1) academic credit requires 50 minutes a week of classroom or faculty instruction and about two hours of out of class student work for a 15-week course; 100 minutes a week of classroom or direct faculty instruction and about 3.5 hours of out of class student work for a 7.5-week course.
  - For a three-credit course, students should expect 2.5 hours a week of classroom or faculty instruction and a minimum of 5 hours of out of class student work for a 15-week course; 5 hours of classroom or direct faculty instruction and a minimum of 10 hours of out of class student work for a 7.5-week course.

- Attendance policy – You are expected to attend all classes and be an active participant in all lectures, class discussions, and group activities. In spite of an absence, all out-of-class assignments must be submitted on time and all in-class assignments must be completed by an agreed-upon late.

- Policy on late submissions/incomplete work – In the learning environment as well as in the work environment, due dates are essential. Our assignments have due dates to ensure that the student can successfully complete the class in a certain timeframe while also benefiting from instructor and peer input prior to completing each new assignment. Also important is timely participation in the threaded
discussions to maximize the learning experience for all parties. To avoid late penalty deductions, assignments should be submitted on or prior to the due date.

- Online classes: Each assignment is due at 11:59 pm EST of the date indicated. If you are absent when an assignment is due, the assignment must still meet the deadline or suffer the penalty of being late. No make-up work (homework, discussion board posts, quizzes, etc.) will be permitted, except under extraordinary and documented conditions, and will be subject to the instructor’s approval. Extra credit assignments are typically not available.
- On-ground classes: Assignments are due during the first half-hour of class on the due date. For example, if class begins at 9:30am, you have until 10:00am to hand the assignment in before it is considered late.

Course Materials

- Various articles, as assigned.

Student Learning Outcomes

Based upon satisfactory completion of this course a student/learner should be able to:

- Define epidemiology and describe specific uses for epidemiologic training.
- Describe key events in the history and development of epidemiology.
- Identify common sources of epidemiologic data.
- Define public health surveillance and identify primary components.
- Calculate and interpret selected measures of morbidity and mortality.
- Describe components of, and distinguish between, descriptive and analytic epidemiology.
- Describe common study designs used in epidemiology and discuss some of their strengths, weaknesses and limitations.
- Explain and distinguish between the terms association and causation.
- Calculate and interpret common measures of association.
- Identify and describe important issues in deriving causal inferences, including bias and confounding.
- Explore applications of epidemiology, including policy development, outbreak investigation, social and behavioral issues, the environment and occupational health

Course Methodology

Each week, you will be expected to:

1. Complete all assigned readings before class.
2. Attend and participate actively in class.
3. Complete and submit all work in this course by the due dates.
Grading/Evaluation Standards

Effective communication is an important skill in healthcare and the health sciences. All students’ work should be clear, comprehensible, and competently produced. To this end, rubrics will be used to inform both the instructor and student regarding the quality of discussion and assignment submissions. Please: read and follow any instructions...if you have ANY questions, call or email me.

The use of Proper English and APA format is required and expected.

- A to A- (100-90) Excellent work, well written and insightful, always exceeding expectations.
- B+ to B- (89-80) Very good work, always meeting expectations and occasionally exceeding expectations.
- C+ to C- (79-70) Average work, solid effort meets expectations.
- D+ to D- (69-60) Major problems, misunderstanding assignments, and/or failure to follow directions; and/or not completing assignments, and/or work not meeting expectations.
- F (below 60) Inadequate work, failure to complete assignments as directed.

The course grade is calculated using the grading standard published in the CPS Student Handbook, available at http://cps.neu.edu/student-resources/.

Grade Breakdown

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Grade (Pts or %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Discussions</td>
<td>2 topics each week</td>
<td>300 points</td>
</tr>
<tr>
<td>2 Quizzes</td>
<td>The last quiz is comprehensive</td>
<td>300</td>
</tr>
<tr>
<td>3 Research Paper</td>
<td>Completed in graded components</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Total Points</td>
<td>1000</td>
</tr>
</tbody>
</table>

Course Schedule

<table>
<thead>
<tr>
<th>Week/Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Exercises/Assignments with due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Tues 5 Sept – midnight</td>
<td>History and Philosophy of Epidemiology</td>
<td>Chapter 1</td>
<td>Introduce yourself, Discussion</td>
</tr>
<tr>
<td>2 Mon 11</td>
<td></td>
<td>Chapter 1 cont.</td>
<td>Discussion</td>
</tr>
<tr>
<td>Date</td>
<td>Topic</td>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>Sept–midnight Sun 17 Sept</td>
<td>Historic Developments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Mon 18 Sept–midnight Sun 24 Sept</td>
<td>Uses of Epidemiology</td>
<td>Chapter 2</td>
<td></td>
</tr>
<tr>
<td>4 Mon 25 Sept–midnight Sun 01 Oct</td>
<td>Practical Disease Concepts</td>
<td>Chapter 3</td>
<td></td>
</tr>
<tr>
<td>5 Mon 03 Oct–midnight Sun 08 Oct</td>
<td>Descriptive Epidemiology I</td>
<td>Chapter 4</td>
<td></td>
</tr>
<tr>
<td>6 Mon 09 Oct–midnight Sun 15 Oct</td>
<td>Descriptive Epidemiology II</td>
<td>Chapter 4 cont.</td>
<td></td>
</tr>
<tr>
<td>7 Mon 16 Oct–midnight Sun 22 Oct</td>
<td>General Health and Population Indicators</td>
<td>Chapter 5</td>
<td></td>
</tr>
<tr>
<td>8 Mon 23 Oct–midnight Sun 29 Oct</td>
<td>Analytic Epidemiology</td>
<td>Chapter 6</td>
<td></td>
</tr>
<tr>
<td>9 Mon 30 Oct–midnight Sun 05 Nov</td>
<td>Epidemiology and the Policy Arena</td>
<td>Chapter 7</td>
<td></td>
</tr>
<tr>
<td>10 Mon 06 Nov–midnight Sun 12 Nov</td>
<td>Infection Disease and Outbreak Investigation</td>
<td>Chapter 8</td>
<td></td>
</tr>
<tr>
<td>11 Mon 13 Nov–midnight Sun 19 Nov</td>
<td>Social and Behavioral Epidemiology</td>
<td>Chapter 9</td>
<td></td>
</tr>
<tr>
<td>12 Mon 20 Nov–</td>
<td>Special Applications</td>
<td>Chapter 10</td>
<td></td>
</tr>
</tbody>
</table>
### End-of-Course Evaluation Surveys

Your feedback regarding your educational experience in this class is very important to the College of Professional Studies and to me. I will get your comments after the course has ended, so please let me know how I am doing. Your comments will make a difference in the future planning and presentation of our curriculum.

At the end of this course, please take the time to complete the evaluation survey at [https://neu.evaluationkit.com](https://neu.evaluationkit.com). Your survey responses are completely anonymous and confidential. For courses 6 weeks in length or shorter, surveys will be open one week prior to the end of the courses; for courses greater than 6 weeks in length, surveys will be open for two weeks. An email will be sent to your HuskyMail account notifying you when surveys are available.

### Academic Integrity

A commitment to the principles of academic integrity is essential to the mission of Northeastern University. The promotion of independent and original scholarship ensures that students derive the most from their educational experience and their pursuit of knowledge. Academic dishonesty violates the most fundamental values of an intellectual community and undermines the achievements of the entire University.

As members of the academic community, students must become familiar with their rights and responsibilities. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, examinations of whatever kind, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Students are responsible for learning the conventions of documentation and acknowledgment of sources in their fields. Northeastern University expects students to complete all examinations, tests, papers, creative projects, and assignments of any kind according to the highest ethical standards, as set forth either explicitly or implicitly in this Code or by the direction of instructors.

Some assignments in this course might be analyzed by TurnItIn (an Internet-based service that analyzes originality in written submissions) and the course instructor to ensure students have submitted original work for all assignments in this class during this term and to ensure submitted work complies with Northeastern University’s academic integrity expectations. In addition, please note that students may NOT use/reuse or
“recycle” a paper or project submitted in another class for any assignment in this course. This includes students who may be retaking this same course for a different grade. Students who want to rework a similar topic from another course, and do so in a substantially different way, should consult with the instructor prior to moving forward with a topic/project. Please review Northeastern University’s Academic Integrity Policy at the end of this syllabus and visit the University’s website for more information.

Go to http://www.northeastern.edu/osccr/academic-integrity-policy/ to access the full academic integrity policy.

Student Accommodations

The College of Professional Studies is committed to providing equitable access to learning opportunities to students with documented disabilities (e.g. mental health, attentional, learning, chronic health, sensory, or physical). To ensure access to this class, and program, please contact The Disability Resource Center (http://www.northeastern.edu/drc/) to engage in a confidential conversation about the process for requesting reasonable accommodations in the classroom and clinical or lab settings. Accommodations are not provided retroactively so students are encouraged to register with the Disability Resource Center (DRC) as soon as they begin their program. The College of Professional Studies encourages students to access all resources available through the DRC for consistent support.

Student Resources

The We Care program at Northeastern University is a support system to aid students during times of difficulty or crisis. When students experience unexpected challenges in maintaining their academic progress, We Care works with the student to coordinate assistance among university offices and to offer appropriate on and off campus referrals to support successfully resolving the issue. For more information, visit http://www.northeastern.edu/wecare/.

Library Services

The Northeastern University Library is at the hub of campus intellectual life. Resources include over 900,000 print volumes, 206,500 e-books, and 70,225 electronic journals.

For more information, visit http://library.northeastern.edu/.

Tutoring Services

Tutoring can benefit skilled professionals and beginning students alike. NU offers many opportunities for you to enhance your academic work and professional skills through free one-on-one academic support on and off campus. Tutoring is available in multiple subject areas.

For more information, visit http://www.cps.neu.edu/student-resources/tutoring-services.php.
Northeastern University Online Technical Help
Get immediate 24/7 technical support for NU Online by calling 855-836-3520 or visiting the online Support Center. Support via e-mail is also available within one business day at NUOnline@neu.edu.

Undergraduate Catalog
The College of Professional Studies Undergraduate Catalog is a reference/resource with information about curricula, resources, and academic and student policies. For more information, visit http://www.cps.neu.edu/student-resources/.

Northeastern University Online Copyright Statement
Northeastern University Online is a registered trademark of Northeastern University. All other brand and product names are trademarks or registered trademarks of their respective companies.

This course material is copyrighted and Northeastern University Online reserves all rights. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual, or otherwise, without the express prior written permission of Northeastern University Online.

Copyright 2017 © by Northeastern University Online
All Rights Reserved