

Epidemiology (BIOL 303) Syllabus Fall 2011

Professor: Dr. Sabrina Mueller-Spitz
Office: HS 151
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Office Hours: Monday 2-3:30 pm and Wednesday 2-3:30 pm, Other times by appointment.
Lecture: WF 11:30-12:30, Halsey 367
Course Readings: These materials will be posted on D2L.

Course Description: This was a course created for the environmental health majors. It also serves as an elective for biology and microbiology majors. This course provides a foundation of topics in epidemiology through examining infectious disease, chronic diseases, and general health. Students will learn from real world health problems and demonstrate how epidemiology is used to better understand, prevent, and treat these “health states” among the population. Prerequisite: Biology 105.

Course Objectives:

Define epidemiology and explain the importance of this field in improving the overall health of the global population. The fundamentals of epidemiology will be applied to understanding distribution and determinants of infectious and chronic diseases.

Critically evaluate epidemiology topics in the media and the science behind these studies to better understand your “risk” in developing a chronic disease, infectious disease or preventing a negative health outcome. This will be accomplished by classes based discussions and written analysis of current primary literature in the field of epidemiology and current topics.

Understand the contribution of social, economic, genetic, environmental and cultural factors (e.g. urbanization, transportation, agricultural, manufacturing, energy production, etc.) that are associated with disease development, treatment and prevention.

Graded Course Items:

- There will be **two** exams that will focus on application of the concepts from the lecture material, paper/data interpretation, and analysis of the field of epidemiology. (50% of final grade)
- There will be in-class daily activities as the semester proceeds, which will be used to determine attendance and contribution to the class environment. These activities will include group discussions of in-class questions, sharing information gathered about topic associated with previous course material, short quizzes, and independent exercises. (20% of final grade)
- There will be **four** student directed discussions between weeks 7 and 11. For each discussion there will be ~8 students that are responsible for leading the discussion on a topic of interest determined by the class members. Each student who is not leading the discussion, you are responsible for reading the primary literature papers and participating in the class discussion. Those leading the discussion will pose questions to the other members of the class facilitating the discussion of the topic and will write an interpretation of the topic based upon results of the discussion which is due by the next class session. This will be modeled after the professor lead discussion that will occur during the first few weeks of the course. (12.5% of final grade)
- There will be a literature analysis about a health topic of your choice. **The goal of this assignment is to CRITICALLY address how epidemiology topics are presented to the public in the news, magazine articles, and on the web by analyzing primary scientific literature and writing your own interpretation of the topic.** The core element of this project is how medically relevant science is CLEARLY portrayed to an educated public. The assignment is split into 6 separate components targeting a health topic of your interest. The details of the project are posted on D2L. (17.5% of final grade)

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Course Policies:

Exams: Graded exams will be handed back approximately one week after the scheduled date of the exam, providing the professor sufficient time to grade the short answer exams. There are NO make-up exams! If a student misses an exam because of extreme circumstance such as death of a close relative or a documented medical excuse, the student will be allowed to take a make-up exam. The student must talk with the professor immediately following missed exam to schedule a make-up (your responsibility). **However just missing an exam does not warrant a make-up exam.**

Assignments: These assignments **MUST BE** submitted on D2L's drop box as a word document (e.g. .doc or .docx file) to receive full credit. These assignments will be graded for how the topic is presented, writing style, grammar/spelling, and inclusion of references (correctly cited reference and a PDF of the paper). **Late assignments will be accepted with a loss of 10% of the point total per day the assignment is late.** A separate late dropbox will be created for all late assignments. Class discussions will be graded on participation and answering reading questions about the assigned paper(s), if you don't contribute to the discussion in a positive manner this will be considered a ZERO for participation.

Academic Dishonesty: Cheating on an exam, plagiarizing (e.g. using information from a website, textbook, journal article, or public press without a citation), or any other form of academic dishonesty will be dealt with in accordance with the current UWO Student Discipline Code section 14. **Academic dishonesty could result in the instructor assigning a grade of "F" for the course should circumstances warrant. I TAKE ACADEMIC MISCONDUCT VERY SERIOUSLY.** If you have any questions when working on assignments for this class or any other please come. **REMEMBER WHEN IN DOUBT CITE THE SOURCE.**

Email: When contacting me by email include the course number (Biol 303) in the Subject line to make sure that your email receives a response in a timely manner. If I am unable to understand the content or context of your email, I will not respond, so please send a detailed message.

Mobile Devices: Turn off all **cell phones**, mp3players, or any other device that can be distracting to classmate prior to lecture.

Course Topics : The topic order could change. If there is a specific topic that you would like to included in the course topics, please feel free to share this information with me, so I can best address the interests and needs of the students in the class.

Foundations of Epidemiology

Morbidity & Mortality

Emerging & Reemerging Infectious Disease

Control & Prevention

Risk

Analytical Studies

Environmental Epidemiology

Molecular Epidemiology

Disease Triangle

Epidemic Investigations

Population Statistics

Descriptive Studies

Experimental Studies

Occupational Epidemiology

Social Aspects of Epidemiology

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Course Items	Points	Your Point Totals
Exam 1	100	
Exam 2	100	
Paper Discussions Leader	30	
Discussion Contribution (5 pts per discussion)	20	
Popular Literature Analysis	60	
Project Presentation/Discussion	10	
Contribution & Attendance (scored daily)	80	
Total Points	400	

Important Dates for the Course	
September 23 rd	Health Topic Selection
September 30 th	Professor Lead Discussion
October 7 th	Canvas Background on Topic (Review Article)
October 19 th	Student Lead Discussion #1
October 21 th	Exam 1
October 28 th	Non-Review Primary Literature Article #1
November 2 nd	Student Lead Discussion #2
November 11 th	Student Lead Discussion #3
November 11 th	Non-Review Primary Literature Article #2
November 18 th	Student Lead Discussion #4
November 18 th	Rough Draft or Outline of News Story
December 2 nd	Health News Story
December 7 & 9 th	Expert Panel Discussions
December 14 th	Exam 2

GRADING SCHEME:		
93-100 %	A	> 372 pts
90-92.9 %	A-	> 360 pts
87-89.9 %	B+	> 348 pts
82-86.9 %	B	> 328pts
81.9-80 %	B-	> 320 pts
77-79.9 %	C+	> 308 pts
71-76.9 %	C	> 284 pts
69-70.9 %	C-	> 276 pts
67-68.9 %	D+	> 268 pts
61-66.9 %	D	> 244 pts
60.9-60 %	D-	> 240 pts
less than 60	F	