Instructor and Course Director: Wael Al-Delaimy MD PhD, Professor, Department of Family and Preventive Medicine, UCSD

UCSD Global Seminar 2014- Amman, Jordan

Prerequisite: Upper Division standing

Course Objective:
- To attain the basic knowledge and skills of the science of epidemiology
- To design studies based on the public health problem at hand
- To estimate risk of lifestyle, and environmental factors on population health
- To develop the basic skills on how to collect data for research purposes, analyze and interpret it, and then present and write it up
- To be critical thinkers when dealing with public health problems and providing the data needed to address them in a scientifically rigorous manner

This course will introduce the topic of Epidemiology as the backbone of Public Health. The course will focus on methodology and practical aspects of public health and epidemiology. Students will observe this in the context of a developing country with a large refugee population. It complements Public Health and Epidemiology I REV160GS course by understanding data collection and thinking through study design, or observing public health practice and understanding the challenges for public health professionals in the field. Depending on the number of enrolled students, sub groups of student teams will be tasked with pursuing a public health question and collecting relevant data from the field in collaboration and coordination of local agencies and health clinics and then sharing their experience with the rest of the class during lectures. Attending clinics of primary care and observing health care and prevention is a secondary goal. The collected data will be on topics that include but not limited to: tobacco, diet, maternal and child health, mental health, HIV, chronic diseases, vaccination, health education, and health care services. Every student will be expected to have a personal computer with Microsoft Office or similar programs. Speaking Arabic is an advantage but not a prerequisite as there will be interpreters.

This course will be very useful for premedical students who want to pursue medicine or health related studies and careers. It can also apply to policy and international affairs students who would like to pursue health policy and international relief and nongovernmental organizations (NGOs) careers. The structure of the course will be similar to Medical School and Public Health graduate courses covering this area but at a slightly lower level of complexity and detail. Premedical students taking this course will be expected to excel in medical
school in the required courses of epidemiology and research methodology as well as when pursuing independent study projects. This course and experience will likely help support their applications to many medical schools that seek research experience in its applicants.

Course Schedule: See attached course schedule (Bolded)
Weekly hours:
6 hrs lecture and discussion, 10 hrs clinic (count as 5hrs for the course), 13 hrs home work and data collection (2.5 hrs per day)

Clinic and field wok: See attached grouping and schedule

Evaluation:
There will be lectures covering the basic Epidemiology topics described below in addition to presentations of individual students on their field work observations. The emphasis will be on class discussion of the field experience and obstacles facing students or local health care providers in their field work. Theory relevant to the practice in the field will be covered in the companion course Public Health and Epidemiology I. Evaluation will be based on participation in the course, discussion and presentation of data and a final presentation relevant to the research hypothesis and project proposed by the students. For the final presentation, work will be distributed to clearly mark what each of the 4 students student will write and present within each clinical group, and will be graded for 35%. Sections are Literature review, methods and data analyses, results and interpretation, discussion and comparing to other literature.

Grade Distribution:
2 quizzes (5% each to total 10%): These will be in the 2nd and 4th weeks of the course and take 15-30 minutes. The grades help students assess their level and weaknesses to better prepare for the midterms and finals. Most who do well in quizzes do well in the major exams.
Mid term (20%): is inclusive of all material from the beginning of the course till the time of the exam. If one wants an A, they need to do well in this exam. The exam usually take 30 minutes on average but those who read the material and know the answers can easily finish it in 15 minutes.
The questions in all exams are put to differentiate the level of students and their preparation, including topics not in the lecture notes but emphasized in the discussion of lecture. Therefore they exam requires careful reading of the chapters and the discussion.
Final (35%): This will be given based on the group performance of the final presentation and submitted paper for the epidemiology data analyses project. The grade covers the written report (how well it was written, accuracy of information, interpretation of data, and the overall findings), the powerpoint oral presentation (timing, skill of presenting, reflecting the written report findings, cohesiveness of the group to present the different components) and the ability to address questions related to the presentation.

Discussion and class participation (10%): The discussion grade is the most overlooked grade by students in the past. Every class is an opportunity to increase the average of the overall grade. Not asking or answering and not participating will make the student
earn 0 out of 10 discussion grades for that class. A student who answers a few questions and is actively participating in the class can earn 5 or 7 grades out of 10. A student who answers almost all questions asked or answers a difficult question when no other student was able to do that can earn a full score for that class. The final discussion grade is an average of all these scores for the lectures.

Written assignments (10%): These assignments are meant to help students with extra credits and most students do well if they present a viable and well-articulated idea in response to the assignment questions. Those who get a full grade would have done literature and background reading and presents a sophisticated discussion and presentation of their perspective on the topic that is elevated to a scholarly written piece of work. Assignments are not handed back to students and are commonly graded at the end of the course.

Class attendance (5%): students who miss one or two classes in the course will lose this grade and those who miss three classes without appropriate excuse taken before their absence, unless it was something beyond their control, can be dismissed from the course and get an F.

Extracurricular and field work (10%): This is to cover the attendance and participation of the students in the clinics and data collection. The behavior and conduct is an important contributor to this grade. Those who miss clinics or misbehave in an inappropriate manner can lose all or part of this grade. This grade also covers inappropriate incidents outside the class that can negatively affect the reputation of the GS seminar and UCSD among the host organizations and associated entities.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points</th>
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<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
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<tr>
<td>A</td>
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<td>A−</td>
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<td>B+</td>
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<td>B</td>
<td>3.0</td>
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<td>B−</td>
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A+ (97-100) = 4.0
A (93-96) = 4.0
A− (90-92) = 3.7
B+ (87-89) = 3.3
B (83-86) = 3.0
B− (80-82) = 2.7
C+ (77-79) = 2.3
C (73-76) = 2.0
C− (70-72) = 1.7
D+ (67-69) = 1.3
D (65-66) = 1.0
E/F (below 65) = 0.0

Passing grade is C-

If the large majority of grades of students are below C+ grade of 79, a C+ curve will be used to assign the grades to the class where the median class grade becomes equivalent to C+ and one standard deviation above it is equivalent to a B, and two standard deviations above it is equivalent to an A. One standard deviation below the median would be equivalent to a C and two standard deviations below the median would be equivalent to a D. Failure to make the two standard deviations below the median when using a C+ curve or failing to complete the GS course can result in an F. A variation of this curve can also be used and students would be informed about it.

The UCSD Standards and policies about student conduct will be strictly enforced. Although less likely to happen due to the screening and preparation of GS students, any misconduct, including cheating, inappropriate class behavior, or other criteria as outlined by the UCSD student conduct policies can result in disciplinary action as well as obtaining an F in the class and discontinuation of participation in the Global Seminar course and its related facilities in Amman.

About the seminar location: Amman is a vibrant city in the Middle East with a wide difference in health disparity and socioeconomic status within its population. It has a good summer weather, with few hot days that can reach 95 F, and can be considered one of the safest cities in the region (if appropriate caution is taken) and therefore the destination of thousands of tourists from all over the world for its culture and historical sites that dates back to pre-Roman era. It also has the largest Palestinian Refugee population displaced by the Wars in 1948 and 1967 who have now settled in poor suburbs around Amman. In recent years it has become the destination of Iraqi refugees, and more recently Syrian refugee escaping the violence in their respective countries. A large majority of Jordanians are Muslim Arabs and their culture is similar to other Arab countries. Generally a conservative but open society which also has a colorful array of activities and venues to cater for Western tourists and the younger Westernized Jordanian generations. The students should observe modesty and respect in their dress and behavior and be a good ambassador of the US to the people they meet in Jordan.

The course will cover the following topics during the 5 week period but these can undergo changes by the professor prior to starting the class, or during the class when needed to accommodate changes in the program:
(additional reading material and assignment TBD)
Week 1:
Clinic/UNRWA HQ
Intro to Epidemiology Surveillance (Chapters 1 and 2)
Clinic
Questionnaire Design (Assignement 1)
Database Management

Week 2:
Clinic
screening: bladder cancer (Chapter 5)
Clinic
Measuring morbidity (Chapter 3)
measuring mortality (Chapter 4)

Week 3:
Clinic
Study types (Chapter 9, 10, 13)
Clinic
Bias and confounding (Chapter 15)
Exposure assessment (Assignment 2)
(MID TERM)

Week 4:
Clinic
Estimating risk (Chapter 11, 14)
Analyses (Assignment 3)
Clinic
How to write a paper (Ref 1 below)
Quiz 2 for epidemiology

Week 5
Clinic
Epidemiology and policy (Chapter 19)
Review
Clinic
Final exam and Final student presentation

Books:
Epidemiology
By Gordis Fourth Edition

Selected journal papers will be included as part of the assignment and discussion sessions for specific lectures
Recommended but not required reading:
1. Epidemiology: An Introduction
by Kenneth J. Rothman
2. Basic and Clinical Biostatistics
By Dawson and Trap
3. Any reliable source for describing the culture and belief of Arabs and Muslims to be culturally sensitive when conducting the field work

References: