

EPID 770: Cancer Epidemiology and Pathogenesis 2006 Syllabus

Instructor

Jane Schroeder
2103C McGavran-Greenberg Hall, CB#7435
Email: jane_schroeder@unc.edu
Phone: 1.919.966.7446
Fax: 1.919.966.2089

Classroom: HC003 (Hooker Building)

Time: MWF 9:00 – 9:50

Office Hours: Wed. 3 – 4pm

Course Description

This course is intended for cancer epidemiology students, students considering cancer epidemiology as a substantive focus, and students who wish to be informed consumers of cancer epidemiology research. We will begin by covering fundamental concepts in cancer biology, pathogenesis, descriptive epidemiology, and the interpretation and design of etiologic studies. The majority of lectures will focus on current knowledge regarding the epidemiology and biology of specific cancers, including pathogenic mechanisms, risk factors, major studies, information sources, and public health issues. The principle goals are to provide a broad overview of the field, and to develop basic knowledge and skills needed to understand and evaluate published research. Course requirements include class participation, required readings, midterm and final exams, and a student-led discussion session or presentation. Co-requisite: EPID 168 or equivalent. A basic understanding of cellular/molecular biology is strongly recommended.

Course Goals

- Provide a broad overview of cancer epidemiology
 - Emphasis on etiologic research and screening
- Provide basic substantive knowledge concerning major cancers and risk factors
- Develop background knowledge and skills to understand and interpret cancer epidemiologic research
 - Information sources
 - Cancer Biology

Required Text

Textbook of Cancer Epidemiology
Hans-Olav Adami, David Hunter & Dimitrios Trichopoulos
Oxford University Press, New York, 2002

- Information on required readings is included in the Course Schedule. Links to required readings other than Adami et al will be provided or posted on the website at least 5 days in advance.

Supplemental/Recommended Reading

Cancer Epidemiology, Third Edition
 David Schottenfeld, Joseph F. Fraumeni
 Oxford University Press, New York, 2006
 List price \$235

- Supplemental readings and references will be cited in lecture slides.

Class Website (Blackboard)

Lecture slides will be posted in the Documents folder of the EPID770 Blackboard site. If you have problems accessing the site, please let me know. You will receive an email notification when slides or other materials are posted to the site. In general slides will be posted at least 24 hours in advance so that you will have time to print them out before class. If slides are posted less than 24 hours prior to class I will provide printed copies in class.

Class Requirements, Exams and Grading

1. Class participation 15%
 - Read required material prior to lectures
 - Ask questions, participate in discussions
 - Includes active participation in student presentation/discussion sessions
 - I do not take attendance at lectures, but your attendance is important and appreciated, and missing more than a few lectures will affect your class participation grade. If possible, please let me know in advance if you will not be able to attend class because of religious holidays, travel or other scheduling conflicts.
 - Please try to get to class on time- given the 50 min. lecture period we will lose a substantial amount of time if we do not begin promptly at 9 am.
2. Midterm exam 30%
 - Open book, take home, multiple choice & short answer
 - Distributed Wed. Oct. 4, will cover material through lecture that day
 - Due Wed. Oct. 11 (at 9 am, i.e., before start of class)
3. Final exam 35%
 - Open book, take home, multiple choice & short answer
 - Comprehensive, including all lecture material and required readings and at least one question related to each student discussion/presentation session
 - Distributed Friday Dec. 1, due Friday Dec. 8 (no later than 5pm)
4. Student Discussion/Presentations 20%
 - Topic proposals and date requests due Mon. Sept. 25, topics and dates assigned Oct. 4
 - See Student Discussion/Presentation Guidelines for additional information

Final Course Grades

Final grades are determined based on a weighted average of all your individual grades for class participation, exams and your discussion/presentation as follows:

H	92 – 100
P	80 – 91.9
L	70 – 79.9
F	<70

Policy for Late Assignments

Under some circumstances, extensions may be provided. If an extension is needed because of a scheduling conflict (e.g., travel to attend a meeting), it must be requested in advance.

- Ten points per business day (or fraction thereof) will be deducted from your total grade for overdue midterm exams.
- Ten points per business day (or fraction thereof) will be deducted from your total grade for the discussion/presentation if any required materials are not provided when due, including reading assignments or discussion questions that must be provided prior to your session (see Student Discussion/Presentation Guidelines).
- Twenty points per business day (or fraction thereof) will be deducted from your total grade for overdue final exams. Final grades for the class must be turned in to the registrar by Monday Dec. 11 by 11 am (72 hours after the scheduled time for the final exam), consequently, you will receive a grade of Incomplete for the class if I do not receive your final exam before 11 am Sunday Dec. 10. Exams may be turned in by email (preferred) or put in my mailbox. I will send an email acknowledging receipt of your exam.
- Business days are Monday – Friday, not including official University holidays.

Recommended Journals

Students with an interest in cancer epidemiology should begin reading (or at least scanning the contents of) cancer epidemiology journals on a regular basis. These journals may also be good sources of material or papers for your student discussion/presentation session. Journals vary with regard to their focus, but the following are all worth checking out:

- Cancer Epidemiology, Biomarkers & Prevention (CEBP)
- Nature Reviews Cancer
- Journal of the National Cancer Institute (JNCI)
- Cancer Research
- Cancer
- Carcinogenesis
- International Journal of Cancer
- British Journal of Cancer
- Cancer Causes and Control

General journals (American Journal of Epidemiology (AJE), Epidemiology, Journal of the American Medical Association (JAMA), and New England Journal of Medicine (NEJM)) also include papers relevant to cancer epidemiology. All of the journals listed above are worth reviewing on a regular basis. If you are interested in a specific cancer you should also become familiar with specialty journals (e.g., Prostate, Blood, Breast Cancer Research and Treatment) relevant to it.

Student Presentation/Discussion Guidelines

Overview

The student presentation/discussion sessions are your opportunity to focus on a topic relevant to cancer epidemiology or pathogenesis that is of specific interest to you. In addition, these sessions are an opportunity to improve your presentation and public speaking skills. The scope and nature of the material covered can vary according to your interests, but should cover material or concepts that are not covered in detail in regular class lectures, for example:

- a cancer subtype or subtypes not covered in lecture
- a risk factor or set of risk factors relevant to multiple cancers
- a biologic or carcinogenic mechanism
- a methodologic or study design issue
- public health, ethical, or regulatory issues

Topic requests and approval

Topics may overlap with material discussed in lectures if your presentation/discussion involves a synthesis of information across cancers or lecture topics, or you address the topic from a novel perspective. Your topic may relate to research that you are involved in, but your presentation must consist primarily of new material that clearly differs from any talks or presentations that you have given in the past. A brief description of your proposed topic will be due before class on Sept. 25 (see the Topic Proposal Form posted in the Student Discussion/Presentation folder on the class website), but please feel free to talk to me about your topic ahead of time. The topic proposal form also asks you to indicate preferred dates for your session. I hope to approve proposed topics and provide a final schedule by Oct. 4. If you are proposing something that I am already planning to cover, or if two or more students propose similar topics, I will request an alternate proposal. Please let me know as soon as possible if you want to substantially change your topic after it is approved. You may change the date of your presentation after the final schedule is posted if you find someone who is willing to switch dates with you.

Session formats and related requirements

You may choose either a lecture format or a discussion format for your session. Specific requirements for each format are discussed below. Your discussion/presentation should take no more than 45 minutes; during the last 5 minutes students will complete a brief review of your session.

Lecture format

- 35 min. presentation with power point slides or overheads
- 10 min. for questions or discussion (after your presentation or during your talk if you prefer)
- Copies of lecture slides or overheads must be available to the class at least 24 hours prior to your session
- Citations for references, websites and other information sources must also be provided (on slides/overheads or in a separate document)

Discussion format

- Provide 2 – 3 papers (25 pages maximum) and 3 – 8 discussion questions to the class at least one week prior to your session. Remember, students enrolled in the class vary with

regard to their background in epidemiology- please take this into consideration when choosing papers and posing discussion questions.

- Present a 10 - 15 min. overview/summary of materials.
- Lead a 30 – 35 minute discussion based on the questions you provided. Your classmates are required to prepare for the session by completing the readings and reviewing the discussion questions ahead of time, but you are responsible for keeping the discussion going. However, it is not necessary for all of the discussion questions to be covered or for the discussion to focus only on the questions provided.

Grading

Your discussion/presentation will count toward 20% of your grade. Points will be assigned as shown below. Classmate peer reviews will be taken into account when grades are assigned.

Lecture format

- Material covered: 25%
- Presenter's understanding of the material covered: 25%
- Slides (or other audio-visual aids) and citations: 25%
- Responses to questions/discussion: 15%
- Presentation style: 10%

Discussion format

- Material covered: 25%
- Presenter's understanding of the material covered: 25%
- Slides (or other audio-visual aids) and citations: 10%
- Quality of discussion questions: 15%
- Discussion session moderation: 25%

EPID770 Schedule 2006

Lecture	Date	Topic	Readings & Assignments*
1	23-Aug	Wed. Class Introduction	
2	25-Aug	Fri. Defining Cancer	
3	28-Aug	Mon. Defining Cancer	Adami 29 - 33
4	30-Aug	Wed. Measuring Cancer	Adami: 3 - 28
5	1-Sep	Fri. Measuring Cancer	
	4-Sep	Mon. Labor Day Holiday	
6	6-Sep	Wed. Measuring Cancer, Carcinogenesis	Adami: 34- 49, 54 - 56
7	8-Sep	Fri. Carcinogenesis	
8	11-Sep	Mon. Carcinogenesis	
9	13-Sep	Wed. Carcinogenesis	
10	15-Sep	Fri. Carcinogenesis, Study designs	Adami: 91-97
11	18-Sep	Mon. Study designs	
12	20-Sep	Wed. Lung Cancer	Adami ch. 12
13	22-Sep	Fri. Lung Cancer	
14	25-Sep	Mon. Lung Cancer	Discussion/presentation proposals due
15	27-Sep	Wed. Colorectal Cancer	Adami ch. 9
16	29-Sep	Fri. Colorectal Cancer	
17	2-Oct	Mon. Colorectal Cancer, Screening	(Yom Kippur)
18	4-Oct	Wed. Breast Cancer	Adami ch. 14 Midterm handed out, Discussion/presentation topics assigned
19	6-Oct	Fri. Breast Cancer	
20	9-Oct	Mon. Breast Cancer	
21	11-Oct	Wed. Prostate Cancer	Adami ch. 18. Midterm exam due 9am
22	13-Oct	Fri. Prostate Cancer	
23	16-Oct	Mon. Prostate Cancer	
24	18-Oct	Wed. Cervical Cancer	Adami ch. 15
	20-Oct	Fri. Fall Break	
25	23-Oct	Mon. Liver Cancer	Adami: 212 - 225
26	25-Oct	Wed. Gastric Cancer	Adami ch. 8
27	27-Oct	Fri. Esophageal Cancer	Adami ch. 7
28	30-Oct	Mon. Hemolymphatic Cancers	Adami ch. 24-25
29	1-Nov	Wed. Hemolymphatic Cancers	
30	3-Nov	Fri. Student Discussion/Presentation	
31	6-Nov	Mon. Student Discussion/Presentation	
32	8-Nov	Wed. Student Discussion/Presentation	
33	10-Nov	Fri. Student Discussion/Presentation	
34	13-Nov	Mon. Student Discussion/Presentation	
35	15-Nov	Wed. Student Discussion/Presentation	
36	17-Nov	Fri. Student Discussion/Presentation	
37	20-Nov	Mon. Student Discussion/Presentation	
	22-Nov	Wed. Thanksgiving Holiday	
	24-Nov	Fri. Thanksgiving Holiday	
38	27-Nov	Mon. Student Discussion/Presentation	
39	29-Nov	Wed. Student Discussion/Presentation	
40	1-Dec	Fri. Student Discussion/Presentation	Final exam handed out
41	4-Dec	Mon. TBA	TBA
42	6-Dec	Wed. TBA	TBA
	8-Dec	Fri.	Final exam due 5pm

*Additional readings TBA