

**Department of Epidemiology and Biostatistics
College of Public Health
University of Georgia**

**Preliminary Syllabus: EPID 8900 Special Topics
Cancer Epidemiology
Spring 2008**

Course Information

Instructor: Claire Robb, Ph.D., MPH

Office Location: The Institute of Gerontology, 255 East Hancock Avenue, Athens
(located on the corner of College and Hancock downtown)

Phone: (706) 425-3222 Note: Always follow up all telephone messages with an email

Email: crobb@geron.uga.edu

Office Hours: By appointment

Course Meeting Time and Location

Building: C. Paul D. Coverdell Center Auditorium

Room: 339

Day: Friday

Time: 9:05 AM-12:05 PM

Textbooks and Other Required Course Material

Nasca, P.C. & Pastides, H. (Eds.), *Fundamentals of Cancer Epidemiology*, 2nd Edition, 2002, Jones and Bartlett Publishers, **ISBN-13:** 9780763736187, **ISBN-10:** 076373618X

Journal articles and other articles of interest will be posted on WebCT as the class progresses.

Course Description

This course uses a combination of lecture, student discussion and independent research to review the fundamentals of cancer epidemiology including classic descriptive cancer EPI, basic cancer biology, etiology of common and uncommon human cancers, major and minor risk factors for cancer, screening techniques for early detection, cancer biomarkers, and current research in cancer epidemiology. Epidemiologic surveillance techniques including cancer registries and databases, international studies and intervention trials will also be covered. Study designs and epidemiologic methodology used in cancer research will be discussed throughout the course.

Course Learning Objectives

Students in the course will have the opportunity to:

- Become familiar with basic terminology used in cancer epidemiology journal articles, including basic concepts that apply to benign and malignant neoplasms, tumor metastases, tumor staging and grading classification schemes.
- Learn how diagnostic difficulties can affect epidemiological studies of various cancers.
- Be able to associate common risk factors with selected cancers
- Learn about carcinogen exposure and research to identify chemicals likely to be human carcinogens
- Review current literature on the association of smoking and alcohol use with various cancers.
- Be familiar with the etiological association of viruses to various types of cancer
- Investigate the impact of demographic changes and improvements in treatment on cancer survivorship.
- Examine gender, racial, and cultural differences in cancer incidence.
- Learn how to use the SEER database of cancer registries.

FOR MPH STUDENTS: *Cancer Epidemiology* addresses the following competencies for epidemiology as set forth the College of Public Health and the Department of Epidemiology and Biostatistics at the University of Georgia..

- Demonstrate a working knowledge of current and emerging major public health issues related to communicable and non-communicable disease.
- Apply the basic terminology and definitions of epidemiology in oral presentations and written reports
- Critically review and summarize epidemiologic literature
- Access and utilize epidemiologic data available at the state, national and international level.
- Be sensitive to social, cultural and ethnic differences that may influence the conduct and execution of epidemiologic studies

FOR GERONTOLOGY CERTIFICATE STUDENTS: *Cancer Epidemiology* may be considered as an elective for those students in the Gerontology Certificate Program

Course Requirements for Grading Purposes

This course requires review of a journal article relating to cancer epidemiology and functioning as discussion leader in class for the article under review; an in-depth study of a particular type of cancer and a group presentation on that disease, an individual paper on the cancer concentration, a midterm examination and a final examination. Details of the project presentation will be discussed during class. All reading assignments should be done prior to class and you are expected to come to class fully prepared to discuss what you have read. There will be two (2) tests. Both the midterm exam and the final exam will be taken in class. Tests may be composed of multiple choice, true-false and/or essay questions. .

Topical Outline

Jan 11	Review of syllabus, overview of class, explanation of class project.
Jan 18	Chapter 1: The Descriptive Epidemiology of Cancer
Jan 25	Chapter 2: Basics of Cancer Medicine
Feb 1	Chapter 3: The Biology of Normal Cells Chapter 4: The Biology of Cancer Cells
Feb 8	Chapter 5: Experimental Studies Chapter 6: Biomarkers and Epidemiological Studies of Cancer
Feb 15	MIDTERM 1 Chapter 7: Genetics and Cancer Guest lecturer: Mark Jensen, Ph.D.
Feb 22	Chapter 8: Occupation and Cancer Chapter 11: Ionizing, Nonionizing, and Solar Radiation and Cancer
Feb 29	Chapter 9: Tobacco and Cancer Chapter 10: Alcohol and Cancer Chapter 16: Diet and Cancer
Mar 7	Chapter 12: Infectious Diseases and Cancer Guest lecturer: Steve Valeika Chapter 13: Immunity and Cancer Risk
Mar 14	SPRING BREAK: NO CLASS
Mar 21	MIDTERM 2 Review of Cancer databases
Mar 28	Chapter 14: Endogenous Hormones and Cancer Chapter 15: Exogenous Hormones
Apr 4	Chapter 16: Diet and Cancer Chapter 17: Childhood Cancers
Apr 11	Project presentations
Apr 18	Project presentations

Apr 25 Project presentations; review for Final Exam

Final Exam/Date TBA

Preliminary Reading List

1. Demissie K, Oluwole OO, Balasubramanian BA, Osinubi OO, August D, Rhoads GG. *Racial differences in the treatment of colorectal cancer: a comparison of surgical and radiation therapy between Whites and Blacks. Ann Epidemiol. Mar 2004;14(3):215-221.*
2. Eberhardt B, Dilger S, Musial F, Wedding U, Weiss T, Miltner WH. *Medium-term effects of chemotherapy in older cancer patients. Support Care Cancer. Mar 2006;14(3):216-222.*
3. Hill TD, Khamis HJ, Tyczynski JE, Berkel HJ. *Comparison of male and female breast cancer incidence trends, tumor characteristics, and survival. Ann Epidemiol. Nov 2005;15(10):773-780.*
4. John EM, Phipps AI, Davis A, Koo J. *Migration history, acculturation, and breast cancer risk in Hispanic women. Cancer Epidemiol Biomarkers Prev. Dec 2005;14(12):2905-2913.*
5. Kumar NB, Riccardi D, Cantor A, Dalton K, Allen K. *A case-control study evaluating the association of purposeful physical activity, body fat distribution, and steroid hormones on premenopausal breast cancer risk. Breast J. Jul-Aug 2005;11(4):266-272.*
6. Lubin JH, Caporaso NE. *Cigarette smoking and lung cancer: modeling total exposure and intensity. Cancer Epidemiol Biomarkers Prev. Mar 2006;15(3):517-523.*
7. Michels KB, Giovannucci E, Chan AT, Singhanian R, Fuchs CS, Willett WC. *Fruit and vegetable consumption and colorectal adenomas in the Nurses' Health Study. Cancer Res. Apr 1 2006;66(7):3942-3953.*
8. Rodriguez C, McCullough ML, Mondul AM, et al. *Meat consumption among Black and White men and risk of prostate cancer in the Cancer Prevention Study II Nutrition Cohort. Cancer Epidemiol Biomarkers Prev. Feb 2006;15(2):211-216.*
9. Stellman SD, Chen Y, Muscat JE, et al. *Lung cancer risk in white and black Americans. Ann Epidemiol. Apr 2003;13(4):294-302.*
10. Terry MB, Zhang FF, Kabat G, et al. *Lifetime alcohol intake and breast cancer risk. Ann Epidemiol. Mar 2006;16(3):230-240.*

Grading Policy

Final grades will be based on the following grade point allotments:

- | | |
|--|------------------|
| • Midterm Exam 1 (20%) | 100 points |
| • Midterm Exam 2 (20%) | 100 points |
| • Final Exam (20%) | 100 points |
| • A group/individual project with presentation (20%) | 100 points |
| • A written paper bases on group project concentration (15%) | 75 points |
| • Journal Club: student-led discussion of assigned papers (5%) | <u>25 points</u> |

500 Total points

GRADING SCALE

Final grades in this class will be based on the 500 total points earned on assignments and tests. Percentages and letter grade equivalents are as follows:

A+ 98-100%	B+ 88-89%	C+ 78-80%	D Less than 70%
A 93-97%	B 83-87%	C 73-77%	F Less than 60%
A- 90-92%	B- 80-82%	C- 70-72%	

You may check your posted grades at any time on WebCT.

Make-Up Policy

Missing or failing to turn in a test on time counts as a zero until it is made-up. If you miss a test (i.e., the Midterm Exam), arrangements must be made to take it as soon as possible by calling me at 706-425-3222 and sending me a follow-up email. Make-up exams must be taken no later than one week after the scheduled test, or the student will get a zero for that test. All make-up exams will be given at the Institute of Gerontology, 255 Hancock Avenue (downtown Athens at the corner of College and Hancock).

Attendance Policy

While attendance is not mandatory, it is strongly suggested that all students attend every class session. Since we will be having guest lecturers throughout the semester, it is important for you to take complete notes on what is being said in the lectures. Test questions for both a midterm exam and final exam

Students who anticipate the necessity of being absent from class due to the observation of a major religious observance must provide notice of the date(s) to the instructor, in writing, by the second class meeting.

University Honor Code and Academic Honesty Policy

All students are responsible for maintaining the highest standards of honesty and integrity in every phase of their academic careers. The penalties for academic dishonesty are severe and ignorance is not an acceptable defense. The full version of "A Culture of Honesty: Politics and Procedures" detailing UGA's policies on this matter can be found on the Internet at <http://www.uga.edu/~vpaa>.

All academic work must meet the standards contained in "A Culture of Honesty." All students are responsible to inform themselves about those standards before performing any academic work.

Students with Disabilities

Students with disabilities who require reasonable accommodations in order to participate in course activities or meet course requirements should contact the instructor or designate during regular office hours or by appointment. If you have a disability and would like to request appropriate accommodations, please feel free to discuss this with me.

All individuals receiving accommodation in the classroom must be registered with Disability Services. Please visit their website at <http://www.dissvcs.uga.edu> for further information.

General Disclaimers

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

The syllabus, outside reading assignments and all course lectures will be posted on WebCT. The syllabus is a guide only and dates may change. Changes in class assignments will be announced during class and will be posted as an announcement on WebCT.