FDNS 8530
Nutrition and Disease Processes I
Fall 2006

Course Description Epidemiological, clinical, animal and cellular studies linking diet and diseases, with a focus on cancer and heart disease.

Course Objectives
The student will be able to:
Discuss general epidemiological principles
Demonstrate understanding of the pathophysiology of cardiovascular disease and cancer
Demonstrate knowledge of epidemiological research supporting links between nutrition and chronic diseases such as cardiovascular disease and cancer
Demonstrate knowledge of the proposed biochemical mechanisms by which diet and nutrition influence the development of cardiovascular disease and cancer
Discuss the rationale for current dietary recommendations designed to prevent cancer and cardiovascular disease.

Course Time and Place
Time: Tuesday, Thursday 3:30-4:45
Room: Room 112 Dawson Hall

Course Coordinator: Dr. Joan Fischer
Office: 390 Dawson Hall
Phone: 542-7983
E-mail: jfischer@fcs.uga.edu

Participating faculty: Department of Foods and Nutrition
Dr. Silvia Giraudo
Dr. Arthur Grider
Dr. Dorothy Hausman
Dr. Jung Sun Lee
Dr. Rebecca Mullis

Department of Pharmaceutical and Biomedical Sciences, College of Pharmacy
Dr. Rebecca Bunce
Dr. Diane Hartle

Course Readings: Required background readings will be assigned during class and via webct. These readings will be available online through Galileo and/or Science Direct (www.sciencedirect.com).

Course Evaluation
Tests: There will be one essay exam during the semester and a final essay examination (See schedule). Each will have at least one take-home question which is to be completed independently. The take-home section of the exam should be typed. Each test is worth 25% of the course grade.

Review Article: You will be able to select the topic for your review article. However, it must be a topic that is in the realm of diet and disease relationships: heart disease or cancer. I suggest that you keep this as focused as possible so that you can do a relatively complete literature search on the topic. It should be

written in the same format as a book chapter. The following website gives guidelines for a review of the literature: http://www.wisc.edu/writing/Handbook/ReviewofLiterature.html. This article will be worth 25% of the course grade. Due Date: November 30

Course Presentations: Each class member will be responsible for presenting one paper to the class for discussion. These papers will be assigned by the course coordinator. If you find a similar paper that you find of special interest you may substitute this with the permission of the instructor. Presentations will be 15 minutes long without questions and should be prepared utilizing Power Point. Evaluation criteria are attached. The presentation will account for 25% of the course grade.

Honesty Policy: All academic work must meet the standards contained in "A Culture of Honesty." Students are responsible for informing themselves about those standards before performing any academic work. The link to more detailed information about academic honesty can be found at: http://www.uga.edu/honesty/ahpd/culture_honesty.htm.

Use of Your Name: If you prefer to not have your named called in class or your name posted, such as for your presentation or review article topic, then please let the instructor know by email no later than Friday, August 18th.

Cell Phones and Pagers: Turn off cell phones and pagers before coming to class. If your cell phone or pager rings during class and you feel you need to answer it, then please leave the classroom.

During exams, cell phones should be turned off and put away.

Attendance Policy: Students are required to attend all class periods. Students are expected to come to class prepared to share ideas and discuss assigned readings. It is expected that you will complete all readings by the assigned date, come to class prepared to discuss the readings.

In some cases, absences can be excused. Excuses for anticipated absences must be cleared with the instructor before the absence (send an email to the instructor explaining the situation). **Excused** absences include, but are not limited to, absence for court appearances, university business, verifiable illness, and certain family emergencies. Written, dated documentation must be presented for each excused absence from an officer of the court, college official, or physician.

Tentative Course Schedule

August 17
Course Introduction, J.Fischer
See: Evolution of Evidence for Selected Nutrient and Disease Relationships, Committee on Examination of the Evolving Science for Dietary Supplements, Food and Nutrition Board, Institute of Medicine, National Academy Press, 2002. Readable on: http://www.nap.edu/books/0309083087/html

August 22
Evidence used to establish diet and disease recommendations, J. Fischer
See: consensus.nih.gov/2006/2006multivitaminmineralSOS028html
www.ahrq.gov/clinic/tp/multivittp.htm

August 24
Epidemiological studies: Evaluation of the evidence S. Lee

August 29
Early growth and the relationship to chronic disease development, D. Hausman

August 31
Oxidative Stress and Disease, J. Fischer
Preface to Dr. Grider's seminar: The new arena of nutrigenomics and nutrigenetics as related to nutrition and chronic disease

September 5
No class, but on Sept. 6 Dr. Grider will present a seminar at 12:20 on use of proteomics in nutrition science, Room 310, Dawson Hall

September 7-12
Oxidative Stress and Disease, J Fischer
Presentation/discussion, 3 presentations

September 14
Cardiovascular disease overview, J Fischer

September 19-21
Epidemiology of cardiovascular disease and the establishment of current dietary recommendations for cardiovascular disease prevention: R. Mullis

September 26-28
Diet, nutrition and cardiovascular disease, biochemical mechanisms, intervention
LDL Oxidation and inflammation: D. Hartle

October 3-10
Epidemiology of cardiovascular disease: ***Presentation/discussion, 3 presentations***
*Note: October 4, Dr. Jay Whelan, Seminar, Room 310, 12:20. Dr. Whelan's area of research is on the cellular effects of dietary fatty acids in cancer models. This research applies to our discussion of diet and cancer relationships in Novembe*r.

October 12: Examination 1

October 17-24
Diet, nutrition and cardiovascular disease, biochemical mechanisms, intervention:
Presentation/discussion, 4 presentations

October 26
Fall Break, No Class

October 31
Diet and Cancer, What is the evidence? J. Fischer

November 2 and 7
Cancer Biology: R. Bunce

November 9-14
Diet and Cancer, What is the evidence? (continued) J. Fischer
Presentation/discussion,3 presentations

November 16-28
Diet and Cancer: Chemoprevention of cancer, proposed mechanisms, focus on breast, gastrointestinal and prostate cancers
Presentation/discussion, 4 presentations

Note: Seminar by Dr. Stephen Barnes on November 15, Room 310, Dawson Hall. Dr. Barnes conducts research on the health benefits of phytochemicals, including isoflavones.

November 30th, December 5
Diet and Cancer: Nutrition, genetics and risk of cancer
Genetic polymorphisms, diet and cancer risk, J. Fischer
Presentation/discussion, 3 presentations

November 30, Review paper due.

December 14: Final Exam, 3:30 - 6:30 PM

Additional References

Available in 1) Science Library or 2) Room 390 Dawson Hall

Shils, M.E., Shike, M., Ross, A.C., Caballero, B., Cousins, R.J. eds. Modern Nutrition in Health and Disease. 10th Ed. Baltimore:Williams & Wilkins, 2006.

World Cancer Research Fund, American Institute for Cancer Research. Food, Nutrition and the Prevention of Cancer: a global perspective, 1997

Additional resources will be provided throughout the semester.

FDNS 8530 Evaluation of Review Article Name: _____

Follow these guidelines: An additional resource can be found at :
http://www.wisc.edu/writing/Handbook/ReviewofLiterature.html

Outline	Addresses a key aspect(s) of nutrition and disease processes; turned in on time.	10%
Paper	Addresses a key aspect(s) of nutrition and disease processes; follows guidelines below; between 2500 and 3000 words excluding references; has 15 to 30 key references that are cited in appropriate format (e.g., Am. J. Clin Nutrition); clear, concise, and free of grammatical and typographical errors.	90%
Guidelines		
What is a review of literature?	• Format may vary from discipline to discipline and from assignment to assignment. • A review may be a self-contained unit -- an end in itself -- or a preface to and rationale for engaging in primary research. A review is a required part of grant and research proposals and often a chapter in theses and dissertations. • Generally, the purpose of a review is to analyze critically a segment of a published body of knowledge through summary, classification, and comparison of prior research studies, reviews of literature, and theoretical article.	
Writing the introduction	In the introduction, you should: • Define or identify the general topic, issue, or area of concern, thus providing an appropriate context for reviewing the literature. • Point out overall trends in what has been published about the topic; or conflicts in theory, methodology, evidence, and conclusions; or gaps in research and scholarship; or a single problem or new perspective of immediate interest. • Establish the writer's reason (point of view) for reviewing the literature; explain the criteria to be used in analyzing and comparing literature and the organization of the review (sequence); and, when necessary, state why certain literature is or is not included (scope).	
Writing the body	In the body, you should: • Group research studies and other types of literature (reviews, theoretical articles, case studies, etc.) according to common denominators such as qualitative versus quantitative approaches, conclusions of authors, specific purpose or objective, chronology, etc. • Summarize individual studies or articles with as much or as little detail as each merits according to its comparative importance in the literature, remembering that space (length) denotes significance. • Provide the reader with strong "umbrella" sentences at beginnings of paragraphs, "signposts" throughout, and brief "so what" summary sentences at intermediate points in the review to aid in understanding comparisons and analyses.	
Writing the conclusion	In the conclusion, you should: • Summarize major contributions of significant studies and articles to the body of knowledge under review, maintaining the focus established in the introduction. • Evaluate the current "state of the art" for the body of knowledge reviewed, pointing out major methodological flaws or gaps in research, inconsistencies in theory and findings, and areas or issues pertinent to future study. • Conclude by providing some insight into the relationship between the central topic of the literature review and a larger area of study such as a discipline, a scientific endeavor, or a profession.	

Presentation Sign Up
FDNS 8530

Epidemiology of Cardiovascular Disease (September 14-16)

_____

_____

_____

_____

Diet, Nutrition and Cardiovascular Disease: Mechanisms, Intervention (October 12-14)

_____

_____

_____

_____

Diet and Cancer (November 9 - December 9)

November 9

_____

November 11-16

_____

_____

_____

_____

November 18-23

_____

_____

_____

_____

November 30-December 9

_____

_____

_____

_____

_____

_____