

FDNS 8550 Nutrition and Disease Processes II - Fall 2009

Contact: Dr. Mary Ann Johnson, Professor, Dept. Foods and Nutrition, 542-2292,
DrMaryAnnJohnson@gmail.com, Rm 143 Barrow Hall.

Prerequisite or co-requisite: FDNS 4100/6100 or FDNS 6400 or permission of department.

Course description: Epidemiological, clinical, animal, and cellular studies linking diet and age-related diseases such as diabetes, osteoporosis, other musculoskeletal disorders, and sensory dysfunction. Biochemical and physiological mechanisms by which nutrients prevent disease.

Teaching Philosophy: 1) My goal is to help you improve your skills in “learning how to learn” by guiding you in identifying, reading, thinking critically, speaking, writing and communicating about the scientific research base and policy base for recommendations about nutrition, foods, health and disease. 2) There is no “perfect” research study, so we will develop skills to identify how individual research studies make contributions to overall knowledge. 3) We can’t “know it all,” but we can improve our skills in finding reliable scientific information, critically and fairly reviewing this information, and communicating it clearly and honestly to scientists, clinicians, patients, and consumers.

Course Objectives:

1. Understand the influence of the life-cycle, age, and other demographic factors on nutrition and disease problems (excluding cancer and CVD).
2. Examine the biochemical and physiological mechanisms by which nutrition is involved in the prevention and management of diseases and health problems such as birth defects, HIV, diabetes, osteoporosis, other musculoskeletal disorders, and sensory dysfunction (e.g., taste and smell, auditory function, vision, and cognition).
3. Identify the epidemiological, clinical, animal, and cellular studies that provide the basis for current understanding of the role of nutrition in life-cycle and age-related diseases.
4. Develop skills in critically evaluating the scientific literature in nutrition, health, and disease through discussions during class, giving presentations in class, and writing a research paper on a specific topic.

Readings: Required and background readings will be noted during class and through email announcements. Readings can be accessed online, such as through the UGA libraries: <http://www.libs.uga.edu> and the ejournals, Pubmed: <http://www.ncbi.nlm.nih.gov/pubmed/>, Pubmed Central: <http://www.pubmedcentral.nih.gov/>, ScienceDirect: <http://www.sciencedirect.com>, and/or Google Scholar: <http://scholar.google.com/>.

Quizzes: Several quizzes will be given throughout the semester.

Attendance: Everyone is expected to attend every class period. Students will be asked to discuss, summarize and/or comment about material from the required readings and class room presentations.

Assignments, Discussant, Quizzes, Attendance, and Points Overview – FDNS 8550

A1. Research review paper, PPT slides, and presentation: Your presentation topic will involve: a specific health problem, the general role of nutrition in this problem, a review of a specific area of nutrition in this health problem, and a review of a specific research paper on this area of nutrition and health. A final PPT presentation and a summary paper will be required.

A2. Here are the assignments related to the research review paper, PPT slides, and presentation. Unless otherwise noted, all assignments should be submitted in a) 1 file for text, b) one file for PPT, c) to the instructor via www.elc.uga.edu, and d) paper copy brought to class.

1. Literature search to see how much information is available about this topic – 300 to 600 words – 5% of grade, 50 points. Due electronic only 10 pm 8/20 Thurs.
2. Outline of presentation and paper – 1 page maximum – 5% of grade, 50 points. Due 3:15 pm 8/25 Tues.
3. Review of specific health problem – 500 to 1,000 words; PPT of specific health problem – 10 to 12 slides; 10% of grade, 100 pts. Due 3:15 pm 8/27 Thurs.
4. Review of role of general nutrition in this specific health problem – 500 to 1,000 words; PPT of role of general nutrition in this specific health problem – 10 to 12 slides; 10% of grade, 100 pts. Due 3:15 pm 9/3 Thurs.
5. Review of specific nutritional area in this specific health problem – 500 to 1,000 words; PPT of specific nutritional area in this specific health problem – 10 to 12 slides; 10% of grade, 100 pts. Due 3:15 pm 9/10 Thurs.
6. Review of the specific research study that you will present – 1,000 to 1,500 words; PPT of the specific research study that you will present, title, 15 to 25 slides; 10% of grade, 100 pts. Due 3:15 pm 9/17 Thurs.
7. a) Final review paper – combining/merging/editing previous assignments, 2,500 to 3,000 words, paper due at end of final exam period; b) final PPT – combine/merge/edit previous assignments, 45 to 55 PPT slides (for 45 minute presentation), PPT due 7 pm 2 days before presentation; 20% of grade, 200 points.

B. Discussant for class room presentations (twice): 5% each time, 50 points each time, total 10%, 100 points.

C. Quizzes: Cover all reading, presentations, and discussions in class, several, 20% total, 200 points total, times to be announced.

D. Attendance: -2% (20 points) for each class period missed after missing 3 class periods.

E. Total points: 1,000 points

GRADE	%		Points	
A	93	to	100	930 to 1000
A-	90	to	92.99	900 to 929.9
B+	86	to	89.99	860 to 899.9
B	82	to	85.99	820 to 859.9
B-	79	to	81.99	790 to 819.9
C+	76	to	78.99	760 to 789.9
C	71	to	75.99	710 to 759.9
C-	69	to	70.99	690 to 709.9
D	60	to	68.99	600 to 689.9
F	< 60		< 600	

FDNS 8550 Nutrition and Disease Processes

Course materials will be at:

www.elc.uga.edu

Academic honesty at UGA:

http://www.uga.edu/honesty/ahpd/culture_honesty.htm

Academic honesty and plagiarism:

<http://cdev.concordia.ca/CnD/studentlearn/Help/handouts/WritingHO/AvoidingPlagiarism.html>

<http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>

http://writing.wisc.edu/Handbook/QPA_plagiarism.html

http://www.ctl.uga.edu/teach_asst/academic/index.html

Review of literature tips and resources:

<http://writing.wisc.edu/Handbook/ReviewofLiterature.html#what>

<http://writing.wisc.edu/Handbook/PlanResearchPaper.html>

Grammar and proofing your materials:

http://www.indiana.edu/~wts/pamphlets/proofing_grammar.shtml

Research designs and methods important in this class:

Cross-sectional study

Prospective cohort study

Retrospective cohort study

Case-control study

Randomized controlled trial

Educational intervention (pre-test, intervention, post-test, “*PIP*”)

Systematic review

Meta-analysis

Statistical terms and methods important in this class:

Mean, median, mode

Standard deviation, standard error of the mean, 95% confidence interval

Prevalence, frequency, percentages

Incidence vs. prevalence

T-test independent samples

T-test paired sample

Chi-square analyses

Correlation analyses

Linear regression analyses (regression coefficients)

Logistic regression analyses (odds ratios, use with retrospective cohort, case control, “*PIP*”)

Relative risk (use with prospective cohort, RCT)

TENTATIVE SCHEDULE - FDNS 8550 Nutrition and Disease Processes II

Wk #	Dates & Assignments and Due Date (= A)	
1	8/18 8/20 (A1)	Introduction to statistics in food, nutrition, dietetics, and health studies
2	8/25 (A2) 8/27 (A3)	Research design and statistics using studies about diabetes and nutrition as examples
3	9/1 9/3 (A4)	Diabetes – vitamin D Diabetes – pesticides
4	9/8 9/10 (A5)	Maternal and infant health – folate & B12 Maternal and infant health – iron
5	9/15 9/17 (A6)	Maternal, infant, and child health – iodine
6	9/22,24	Maternal, infant, and child health – HIV Maternal and infant health – nutrition transition (over+under nutrition)
7	9/29 10/1	Vision and micronutrients
8	10/6,8	Taste, smell
9	10/13,15	Hearing Cognition – diabetes and aging
10	10/20,22	Cognition – micronutrients in older people Mental health – younger ages
11	10/27,29	Mental health, depression, continued
12	11/3,5	Sarcopenia in aging – Physical performance – vitamin D & aging
13	11/10,12	Physical performance – anemia & aging Bone health
14	11/17,19	Bone health, continued Stunting – micronutrients & zinc
15	12/1,3	Arthritis Where you live matters – food access
Final	12/15 Tues 3:30-6:30	Final paper due during exam period