

FDNS 4600/6600 Food and the Consumer – Spring 2007

TIME: MWF 2:30-3:20 pm, Rm 116 Dawson Hall

INSTRUCTOR: Dr. Mary Ann Johnson, Rm. 373 Dawson Hall, 542-2292
Easiest to reach me by email: mjohnson@fcs.uga.edu
Office hours – usually 1-2 pm Tu,Th; hours posted on Rm 373 office door; please sign up there

DESCRIPTION:

Health, safety and policy issues related to food consumption trends, nutrient composition of foods, food labeling, dietary supplements, food additives, food allergies and hypersensitivities, phytochemicals, naturally occurring toxins, pathogens, pesticides, biotechnology-derived foods, irradiated foods, and food laws and regulations. This information is needed for your other classes and the jobs you will hold in the areas of foods, nutrition, dietetics, and health. Study hard – and don't forget what you'll learn!

COURSE OBJECTIVES:

1. Understand the interrelationships among health, safety, and policy issues concerning food consumption trends, nutrient composition of foods, food labeling, dietary supplements, food additives, food allergies and hypersensitivities, phytochemicals, naturally occurring toxins, pathogens, pesticides, biotechnology-derived foods, irradiated foods, and food laws and regulations.
2. Through written examinations, class discussions, projects, and written assignments, students will provide evidence of their understanding of health, safety and policy issues concerning foods and their ingredients.
3. Develop skills to access and interpret scientific and regulatory information from scientific, government, and consumer sources.

CLASS: Lecture, discussion, library research, use of computer for research, projects on food composition, exams. Questions about lectures, readings, projects, exams, etc, will be answered in class (but not by email) so all students can benefit from the answers.

READINGS:

It may be helpful to keep your readings in 3-ring binders and/or to save them electronically. It is also helpful to bring readings to class. Readings cover scientific, professional, and consumer information from nutrition, food technology, food processing, chemistry, toxicology, physiology, biotechnology, epidemiology, and regulations. Additional required readings may be assigned at anytime. Most readings can be obtained through the internet site noted in the syllabus or by searching for the author and/or key words in these databases:

1. UGA library: <http://www.libs.uga.edu>, then click on electronic journals and type in journal name, etc.
2. Science Direct: <http://www.sciencedirect.com>
3. Pubmed: <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi> or go to Google and type pubmed

Widely used sources include Food and Drug Administration, United States Department of Agriculture, Environmental Protection Agency, Institute of Food Technologists, International Food Information Council, Journal of the American Dietetics Association, Journal of Nutrition, American Journal of Clinical Nutrition, and other professional journals.

Need to look up a word? Go to Google and type define wordIdontunderstand, e.g., define Ayurvedic

ATTENDANCE: Everyone is expected to attend every class period.

KEYS TO SUCCESS IN FDNS 4600/6600:

- Come to class every day, take notes, ask questions in class
- Read required readings BEFORE class and take notes from the readings
- Apply what you learn in class at the grocery store by reading labels of foods and dietary supplements
- Start studying very hard at least one week before each exam
- Start EARLY on your projects
- Use spell and grammar checks to prepare professional projects to use in your portfolios for jobs and internships

EXAMS: Cover class presentations, lectures, discussions, readings, projects, and material covered earlier in the course. Exams are usually multiple choice, short answer and essays. Graduate/honors students have additional essay questions.

There are no make-up exams before finals. No make-up exams will be given because of illness, emergencies, personal travel, professional travel, funerals, weddings, balls, debuts or other foreseen or unforeseen events. If you have such an event, then prior to missing the exam notify the instructor by email (preferably) or phone; you will be given a make-up exam during the final exam period. If you have some unusual circumstances and feel you need to be excused from an exam, class etc, please contact (542-3564) in the VP Office for Student Affairs and obtain a letter of excuse to be given to me.

PROJECTS:

All students must work independently unless otherwise noted. When projects are done in groups, all group members should sign the back of the cover page with this statement, "I worked with this group to complete this project." Projects are due at the beginning of class. Projects that are not prepared in the correct format, or have grammatical and/or typographical errors will be returned ungraded. There is a 50% late penalty for projects turned in late. Follow the guidelines for each project very carefully. Exams will cover projects.

CLASS PARTICIPATION:

Students will be asked to comment and/or summarize material from the readings during class. Come to class prepared to discuss the assigned readings.

GRADUATE AND HONORS STUDENTS: Must give lectures and presentations and will have additional exam questions.

POINTS:

	Points
FDNS 4600/6600	
Exam 1 unit exam, Wednesday February 14, 2007	100
Exam 2 unit exam, Wednesday March 28, 2007	100
Exam 3 final unit exam, Monday May 7, 2007	100
Project 1: Comparing the nutrient contents of various foods, Wednesday, January 24, 2007	40
Project 2: Comparing the nutritional value of meals, Wednesday, February 21, 2007	40
Project 3: Write a newsletter article, Friday, March 9, 2007	40
Total for FDNS 4600	420
Additional for FDNS 6600 and Honors	420
Project 1: Oral presentation to class	25 points
Lecture and paper to the class (see last page of syllabus and of project explanations)	55 points
Total for FDNS 6600 and Honors	500
Extra Credit	
Attendance (3 or less absences)	5
Show and tell (see handout)	5
Pop quizzes based on lectures and required readings (number and points variable)	Variable

GRADING (see next page):

UNDERGRADUATE		%	Points
Grade	Points = 420		
A		92.00 to 100	386.40 to 420.00
A-		88.00 to 91.99	369.60 to 386.36
B+		85.00 to 87.99	357.00 to 369.56
B		80.00 to 84.99	336.00 to 356.96
B-		78.00 to 79.99	327.60 to 335.96
C+		75.00 to 77.99	315.00 to 327.56
C		70.00 to 74.99	294.00 to 314.96
C-		68.00 to 69.99	285.60 to 293.96
D		60.00 to 67.99	252.00 to 285.56
F		59.98 or less	251.92 or less

GRADUATE		%	Points
Grade	Points = 500		
A		92.00 to 100	460.00 to 500.00
A-		88.00 to 91.99	440.00 to 459.95
B+		85.00 to 87.99	425.00 to 439.95
B		80.00 to 84.99	400.00 to 424.95
B-		78.00 to 79.99	390.00 to 399.95
C+		75.00 to 77.99	375.00 to 389.95
C		70.00 to 74.99	350.00 to 374.95
C-		68.00 to 69.99	340.00 to 349.95
D		60.00 to 67.99	300.00 to 339.95
F		59.98 or less	299.90 or less

March 1 Undergraduate Grades (Mid-Point Withdrawl)		%	Points
Grade	Points = 180 (2 exams, 2 projects)		
A		92.00 to 100	165.60 to 180.00
A-		88.00 to 91.99	158.40 to 165.58
B+		85.00 to 87.99	153.00 to 158.38
B		80.00 to 84.99	144.00 to 152.98
B-		78.00 to 79.99	140.40 to 143.98
C+		75.00 to 77.99	135.00 to 140.38
C		70.00 to 74.99	126.00 to 134.98
C-		68.00 to 69.99	122.40 to 125.98
D		60.00 to 67.99	108.00 to 122.38
F		59.98 or less	107.96 or less

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/ovpi/honesty/acadhon.htm>.

SYLLABUS:

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

USE OF YOUR NAME:

If you prefer to not have your name called in class or your name posted, such as for your projects, then please let the instructor know by email by the third day of class (mjohnson@fcs.uga.edu).

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, put away, and not used for talking, taking pictures, playing games, using the calculator, or text messaging. If your phone is found on during an exam, your phone may be confiscated and you may be charged with academic dishonesty.

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. Lively discussion, diversity of opinions and critical thinking are encouraged and welcomed. It is expected that you will complete all readings by the assigned date, come to class prepared to discuss the readings and attend class regularly. Use as a guide the course schedule or any announced revisions to know how to prepare. Be aware that I call on students by name to answer questions in discussions so be prepared.

Other benefits to class attendance include: explanations of required readings by the instructor, exposure to information and its application not covered in assigned readings, an opportunity to ask questions related to course content, an opportunity to benefit from the experiences and questions posed by classmates, an opportunity for clarification of class assignments, discussion of exams, and a reduced need for last minute assistance in completing assignments when the instructor is least likely to be available.

This is an application-oriented and discussion-oriented course. Students who struggle in this class are those who have difficulty discussing and applying information in real-life situations. Regular class attendance facilitates the development of these skills, which are critical to professional success.

Further, regular class attendance allows the instructor to get to know individual students, facilitating the writing of effective positive letters of recommendation for internships, practicums, scholarships, graduate school, jobs, etc. In addition to academic performance, other factors typically addressed in letters of recommendation are: dependability, maturity and commitment, the ability to work independently following the specific guidelines provided, and completion of assigned tasks in a timely manner. Regular class attendance directly and indirectly provides evidence of the existence of these desirable traits.

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.

FDNS 4600/6600 TENTATIVE SCHEDULE – SPRING 2007
NOTE that additional required readings may be assigned at anytime

Wk#	Week MWF 2:30- 3:20	Topics and Readings <i>Read and bring to class unless otherwise noted</i> <i>Readings marked "background" are not required reading</i>	DATES for Exams or Projects
1	January 8.10.12	<p>Food and Nutrition Polices: Most are from IOM, USDHHS, CDC, USDA, FDA, EPA, FAO/WHO and professional food, nutrition, or health organizations (ADA, ASN, SNE, IFT, AHA, AAP and others)</p> <p>Required Reading - 2005 Dietary Guidelines for Americans http://www.health.gov/dietaryguidelines/dga2005/document/html/executivesummary.htm http://www.health.gov/dietaryguidelines/dga2005/document/pdf/brochure.pdf Background for projects – use as needed: http://www.health.gov/dietaryguidelines/dga2005/document/pdf/DGA2005.pdf</p> <p>Background - not required reading: 2005 Dietary Guidelines Advisory Committee Report (provides scientific rationale for the recommendations): http://www.health.gov/dietaryguidelines/dga2005/report/</p> <p>Background – you should know how to use this for meal planning and calorie levels: My Pyramid www.mypyramid.gov</p> <p>Required Reading - Trends in Dietary Intake: Briefel RR, Johnson CL, Secular trends in dietary intake in the United States. Annual Review of Nutrition, 24:401-31, 2004. Obtain through www.libs.uga.edu or try http://arjournals.annualreviews.org/doi/pdf/10.1146/annurev.nutr.23.011702.073349 IFT, Today’s Top Ten Functional Food Trends, http://www.ift.org/cms/?pid=1001414 (new 2007)</p> <p>Background – Kant AK, Graubard BI, Secular trends in patterns of self-reported food consumption of adult Americans: NHANES 1971-1975 to NHANES 1999-2002, American Journal of Clinical Nutrition, 2006, 84: 1215-1223.</p>	
2	MLK, Jan 17,19	<p>Regulation of Foods and Dietary Supplements:</p> <p>Regulations at a Glance (compares foods, supplements, drugs): http://www.crnusa.org/leg_glance.html</p> <p>Food Safety: A Team Approach: http://vm.cfsan.fda.gov/~lrd/foodteam.html</p> <p>Why America Needs a Strong FDA, JAMA. 2005 Nov 16;294(19):2489-91, Obtain through Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi or http://jama.ama-assn.org/cgi/reprint/294/19/2489</p> <p>Food Labeling: http://vm.cfsan.fda.gov/~dms/fdnewlab.html</p> <p>Claims That Can Be Made for Conventional Foods and Dietary Supplements: http://www.cfsan.fda.gov/~dms/hclaims.html</p> <p>Health Claim Notification for Saturated Fat, Cholesterol, and Trans Fat, and Reduced Risk of Heart Disease http://www.cfsan.fda.gov/~dms/flfats.html (new 2007)</p> <p>A Food Labeling Guide-Health Claims: http://www.cfsan.fda.gov/~dms/flg-6c.html (new 2007)</p> <p>Qualified Health Claims Subject to Enforcement Discretion: http://www.cfsan.fda.gov/~dms/qhc-sum.html</p> <p>Background – not required: Milestones in U.S. Food and Drug Law History, FDA http://www.fda.gov/opacom/backgrounders/miles.html (added 1/8/07)</p>	

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3	Jan 22,24,26	<p>Functional Foods: Opportunities and Challenges http://members.ift.org/NR/rdonlyres/20B9EBDD-93B9-4B1B-B37B-3CF15066E439/0/FinalReport.pdf (Pages 1 to 51 only; OK to save electronically, but do be sure to review this article)</p> <p>http://www.eatright.org/ada/files/FunctionalF.pdf http://www.ific.org/nutrition/functional/upload/FuncFdsBackgrounder.pdf</p> <p>Background - not required reading: IFT Functional Foods Report and shorter briefs and handouts: http://members.ift.org/IFT/Research/IFTExpertReports/functionalfoods_report.htm</p> <p>Arvanitoyannis IS, Van Houwelingen-Koukaliaroglou M. Functional foods: a survey of health claims, pros and cons, and current legislation. Crit Rev Food Sci Nutr. 2005;45(5): 385-404. Review. Obtain through www.libs.uga.edu or http://taylorandfrancis.metapress.com</p>	<p>Wed – Project 1 due (written)</p> <p>Wed – Food Group I Oral FDNS 6600 only</p> <p>Fri – Food Group II Oral FDNS 6600 only</p>
4	Jan 29,31, Feb 2	<p>Functional Foods, continued</p> <p>Dietary Supplements</p> <p>Dwyer JT, Picciano MF, Betz JM, Coates. Mission and activities of the NIH Office of Dietary Supplements. Journal of Food Composition and Analysis, 17(3-4):493-500, 2004. Obtain through www.sciencedirect.com</p> <p>ASHP Statement on the Use of Dietary Supplements: Am J Health Syst Pharm. 2004 Aug 15;61(16):1707-11. http://www.hawaii.edu/hivandaids/ASHP_Statement_on_the_Use_of_Dietary_Supplements.pdf or obtain through www.libs.uga.edu</p>	<p>Mon Food Group III Oral FDNS 6600 only</p> <p>Wed Food Group IV Oral FDNS 6600 only</p> <p>Fri Food Group V Oral FDNS 6600 only</p>
5	Feb 5,7,9	<p>Dietary Supplements, continued:</p> <p>Herbal Dietary Supplements: Barnes S, Prasain J. Current progress in the use of traditional medicines and nutraceuticals. Current Opinion in Plant Biology 8:324-328,2005. Obtain through www.sciencedirect.com</p> <p>Bent S, Ko R. Commonly used herbal medicines in the United States: a review. The American Journal of Medicine, 116(7):478-485, 2004. Obtain through www.sciencedirect.com</p> <p>Antioxidant supplements: Don't help cancer: http://www.ahrq.gov/clinic/epcsums/aoxcansum.pdf Don't help CVD: http://www.ahrq.gov/clinic/epcsums/antioxsum.pdf AHRQ review cancer and CVD: http://www.annals.org/cgi/reprint/139/1/51.pdf</p> <p>Understanding and communicating food and nutrition research: How to Understand and Interpret ... Scientific Studies: http://www.ific.org/publications/reviews/upload/How_to_Interpret.pdf</p> <p>Guidelines Communicating the Emerging Science of Dietary Components for Health: http://www.ific.org/nutrition/functional/guidelines/upload/FFGuidelnsBro.pdf</p>	

Wk#	Week MWF 2:30- 3:20	Topics and Readings <i>Read and bring to class unless otherwise noted</i> <i>Readings marked "background" are not required reading</i>	DATES for Exams or Projects
** END OF EXAM 1 MATERIAL – EXAM NEXT WEEK!! **			
6	Feb 12,14,16	Food Allergy: IFIC Review: Understanding Food Allergy http://www.ific.org/publications/reviews/upload/Understanding-Food-Allergy.pdf . Asthma: http://www.ific.org/publications/brochures/upload/Everything-You-Need-to-Know-About-Asthma-Food.pdf Background: Information about Food Allergens: Approaches to establish thresholds for major food allergens and for gluten in food. (NOTE: focus on part II Food Allergy, A, B, C & D) Available at: http://www.cfsan.fda.gov/~dms/alrgn2.html#ii . (new 2007) Taylor SL and Hefle SL. 2006. Food Allergen labeling in the USA and Europe. Curr Opin Allergy Clin Immunol. 6:186-190. Obtain through Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi Soy and Health: A meta-analysis of the effect of soy protein supplementation on serum lipids, Am J Cardiol. 2006; 1;98(5):633-40, www.libs.uga.edu or www.sciencedirect.com (new 2007) AHRQ: Effects of soy on health outcomes: http://www.ahrq.gov/clinic/epcsums/soysum.pdf (new 2007) Dr. Richard Lewis, guest lecture “Soy and Health” on Friday Feb 16, 2007 Background – not required reading: Zhan S, Ho SC. Meta-analysis of the effects of soy protein containing isoflavones on the lipid profile. Am J Clin Nutr. 2005 Feb;81(2):397-408. http://www.ajcn.org/cgi/reprint/81/2/397 OR Obtain through Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi AHRQ Effects of Soy on Health Outcomes (245 pgs): http://www.ahrq.gov/downloads/pub/evidence/pdf/soyeffects/soy.pdf	Wed - Feb 14, Exam 1
7	Feb 19,21,23	Food additives (antioxidants, antimicrobials, nitrites, sulfites, enzymes): http://www.ific.org/publications/brochures/upload/foodingredientsandcolorsbroch.pdf http://vm.cfsan.fda.gov/~lrd/foodaddi.html http://vm.cfsan.fda.gov/~dms/fdpreser.html http://vm.cfsan.fda.gov/~dms/fdsulfit.html Nitrites and n-nitroso compounds: McKnight GM, Duncan CW, Leifert C, Golden MH. Dietary nitrate in man: friend or foe? Br J Nutr. 1999 May;81(5):349-58. Review. Obtain through Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi or www.sciencedirect.com Jakszyn P, Agudo A, Ibanez R, Garcia-Closas R, Pera G, Amiano P, Gonzalez CA. Development of a food database of nitrosamines, heterocyclic amines, and polycyclic aromatic hydrocarbons. J Nutr. 2004 Aug;134(8):2011-4. Review. http://jn.nutrition.org/cgi/reprint/134/8/2011	Wed Project 2 due
	Mar 1	Midpoint withdrawal deadline, Mar. 1, Thursday	
8	Feb 26,28, Mar 2	IFT, Fat Replacers & Emulsifiers, IFT (try Google): Akoh CC. Fat Replacers. Food Technology. 1998;52(3):47-53. http://members.ift.org/NR/rdonlyres/79873E88-37A3-446E-8AA7-E2C26EAB41EC/0/replacers.pdf	

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		<p>Sweeteners: ADA, Use of nutritive and nonnutritive sweeteners: J Am Diet Assoc. 2004;104:255-275. http://www.eatright.org/ada/files/Nutritive1.pdf</p> <p>Background, not required reading: Kroger M, Meister K, Kava R. Low-calorie sweeteners and other sugar substitutes: a review of the safety issues. Comprehensive Reviews in Food Science and Safety, 5: 36-47, 2006. (new 2007)</p>	
9	Mar 5,7,9	<p>Flavors: Schrinkel KR. Safety evaluation of food flavorings. Toxicology. 198(1-3):203-11, 2004. Obtain through Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi or www.sciencedirect.com</p> <p>MSG: IFIC Review: Glutamate and Monosodium Glutamate: Examining the Myths http://www.ific.org/publications/reviews/upload/Glutamate-and-Monosodium-Glutamate.pdf</p> <p>Geha RS, Beiser A, Ren C, Patterson R, Greenberger PA, Grammer LC, Ditto AM, Harris KE, Shaughnessy MA, Yarnold PR, Corren J, Saxon A. Multicenter, double-blind, placebo-controlled, multiple-challenge evaluation of reported reactions to monosodium glutamate. J Allergy Clin Immunol. 2000 Nov;106(5):973-80. Obtain through www.sciencedirect.com</p> <p>Background reading – not required: Reconsidering the effects of monosodium glutamate: a literature review, J Am Acad Nurse Pract. 2006 Oct;18(10):482-6 (new 2007) http://www.blackwell-synergy.com/doi/pdf/10.1111/j.1745-7599.2006.00160.x</p>	Friday Project 3 due
	Mar 12-16	<p>***** SPRING BREAK *****</p>	
10	Mar 19,21,23	<p>Colors: FDA list of colors http://www.cfsan.fda.gov/~dms/opa-col2.html#ftnote3 (only print those for FOODS) FDA Color additives fact sheet: http://vm.cfsan.fda.gov/~dms/cos-221.html FDA Food color facts: http://vm.cfsan.fda.gov/~lrd/colorfac.html</p> <p>Colors – background reading not required: Hallagan JB, Allen DC, Borzelleca JF. The safety and regulatory status of food, drug and cosmetics colour additives exempt from certification. Food and Chemical Toxicology, 33(6):515-528, 1995. Obtain through www.sciencedirect.com</p> <p>Caffeine: IFIC Review: Caffeine & health: Clarifying the controversies. http://www.ific.org/publications/reviews/upload/Caffeine-Health-Clarifying-the-Controversies.pdf</p> <p>Greenberg JA, Boozer CN, Geliebter A. Coffee, diabetes, and weight control. Am J Clin Nutr. 2006 Oct;84(4):682-93. Review. http://www.ajcn.org/cgi/reprint/84/4/682 (new 2007)</p> <p>Caffeine background reading not required: Higdon JV, Frei B. Coffee and health: a review of recent human research. Crit Rev Food Sci Nutr. 2006;46(2):101-23. Review. http://taylorandfrancis.metapress.com or Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi</p> <p>Nawrot P, Jordan S, Eastwood J, Rotstein J, Hugenholtz A, Feeley M. Effects of caffeine on human health. Food Addit Contam. 2003 Jan;20(1):1-30. Review. www.libs.uga.edu or http://taylorandfrancis.metapress.com</p>	

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		** END OF EXAM 2 MATERIAL – EXAM NEXT WEEK!! **	
11	Mar 26,28,30	<p>Diet and Hyperactivity: Rojas NL, Chan E. Old and new controversies in the alternative treatment of attention-deficit hyperactivity disorder. Ment Retard Dev Disabil Res Rev. 2005;11(2):116-30. Review. Obtain through Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi or http://www3.interscience.wiley.com/cgi-bin/fulltext/110547675/PDFSTART Focus on dietary information in this article. (new 2007)</p> <p>Diet and Hyperactivity background not required reading: Schnoll R, Burshteyn D, Cea-Aravena J. Nutrition in the treatment of attention-deficit hyperactivity disorder: a neglected but important aspect. Appl Psychophysiol Biofeedback. 2003 Mar;28(1):63-75. Review. Obtain through Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi</p> <p>Biotechnology: 20 Questions on Genetically Modified (GM) Foods, World Health Organization, http://www.who.int/foodsafety/publications/biotech/en/20questions_en.pdf</p> <p>Background on Food Biotechnology (IFIC) http://www.ific.org/food/biotechnology/index.cfm?renderforprint=1 (new 2007)</p> <p>Genetic engineering: the future of foods? http://www.fda.gov/fdac/features/2003/603_food.html (new 2007)</p> <p>BST Fact Sheet: http://foodsci.wisc.edu/news/2001/bst_qa.php (new 2007)</p> <p>Dairy Food Safety (including information about BST): http://www.nationaldairycouncil.org/NationalDairyCouncil/Nutrition/Safety/foodSafetyfactsheet.htm (new 2007)</p> <p>Biotechnology – background, not required reading:</p> <p>The impact of genetically modified organisms on health, Ohio State University Extension Fact Sheet. http://ohioline.osu.edu/hyg-fact/5000/pdf/5058.pdf (new 2007)</p> <p>Malarkey T. Human health concerns with GM crops. Mutat Res. 2003 Nov;544(2-3):217-21. Review. Obtain through Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi</p> <p>Genetically Modified Crops and Foods, American Medication Association, http://www.ama-assn.org/ama/pub/category/print/13595.html (new 2007)</p> <p>Bt-corn: what it is and how it works, University of Kentucky Entomology, http://www.uky.edu/Ag/Entomology/entfacts/fldcrops/ef130.htm</p>	Wed March 28, Exam 2
12	Apr 2,4,6	<p>Pesticides Pesticides, National Institute of Environmental Health Sciences, http://www.niehs.nih.gov/external/faq/alpha-p.htm - pesticides What is a pesticide? EPA, http://www.epa.gov/pesticides/about/ Pesticides and food: What you and your family need to know, EPA, http://www.epa.gov/pesticides/food/ (read the first 8 bulleted points of information to the right)</p> <p>Background - not required reading:</p> <ol style="list-style-type: none"> 1. Health effects in children: Weiss B, Amler S, Amler RW. Pesticides. Pediatrics. 113:1030-1036, 2004. http://pediatrics.aappublications.org/cgi/reprint/113/4/S1/1030 2. Sensible food practices: http://www.epa.gov/pesticides/food/tips.htm 3. Types of pesticides: http://www.epa.gov/pesticides/about/types.htm#type 4. Laws: http://www.epa.gov/pesticides/regulating/laws.htm 5. Regulations: http://www.epa.gov/pesticides/food/govt.htm 6. Toxicity categories: http://www.epa.gov/pesticides/health/tox_categories.htm 	

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		<p>7. Assessing health risks: http://www.epa.gov/pesticides/factsheets/riskassess.htm</p> <p>8. Integrated pest management: http://www.epa.gov/pesticides/factsheets/ipm.htm</p> <p>9. Pesticides: EPA website, http://www.epa.gov/pesticides</p> <p>Organic Food: The National Organic Program: http://www.ams.usda.gov/nop/Consumers/brochure.html http://www.ams.usda.gov/nop/FactSheets/Backgrounder.html</p> <p>Organic Foods, Winter CK, Davis SF. IFT. Journal of Food Science. 2006;71(9):R117-R124. http://members.ift.org/NR/rdonlyres/A5367812-A6CF-46C0-80B9-B1EF39A0BCC4/0/OrganicFood.pdf</p> <p>Background - not required reading: Bourn D, Prescott J. (2002) A comparison of the nutritional value, sensory qualities, and food safety of organically and conventionally produced foods. Crit Rev Food Sci Nutr. Jan;42(1):1-34. Obtain through www.libs.uga.edu</p> <p>Baker BP, Benbrook CM, Groth E 3rd, Lutz Benbrook K. Pesticide residues in conventional, integrated pest management (IPM)-grown and organic foods: insights from three US data sets. Food Additives and Contaminants. 2002,19(5):427-46. Obtain through Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi</p>	
13	Apr 9,11,13	<p>Lead: Public Health Statement for Lead, ATSDR, 2005: http://www.atsdr.cdc.gov/toxprofiles/tp13-c1-b.pdf</p> <p>Mercury: What You Need to Know About Mercury in Fish and Shellfish, EPA and FDA, 2004: http://www.cfsan.fda.gov/~dms/admehg3.html</p> <p>FDA, EPA Revise Guidelines on Mercury in Fish, 2004: http://www.fda.gov/fdac/features/2004/304_fish.html</p> <p>Mercury Levels in Commercial Fish and Shellfish, 2006: http://www.cfsan.fda.gov/~frf/sea-mehg.html</p> <p>Smith KM, Sahyoun NR. Fish consumption: recommendations versus advisories, can they be reconciled? Nutr Rev. 2005 Feb;63(2):39-46. Obtain through Pubmed at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi or www.libs.uga.edu</p> <p>Fish: Smith KM, Sahyoun NR. Fish consumption: recommendations versus advisories, can they be reconciled? Nutr Rev. 2005 Feb;63(2):39-46. Review. www.libs.uga.edu</p> <p>Background – not required reading</p> <p>Mozaffarian D, Rimm EB. Fish intake, contaminants, and human health: evaluating the risks and the benefits. JAMA. 2006 Oct 18;296(15):1885-99. http://jama.ama-assn.org/cgi/reprint/296/15/1885 (new 2007)</p> <p>Delgado CL, Wada N, Rosegrant MW, Meijer S, Ahmed M. The Future of Fish: Issues and Trends to 2020 (6 pages), IFPRI. http://www.ifpri.org/pubs/ib/ib15.pdf (new 2007)</p> <p>Delgado CL, Wada N, Rosegrant MW, Meijer S, Ahmed M. Outlook for Fish to 2020: Meeting Global Demand (36 pages), IFPRI. http://www.ifpri.org/pubs/fpr/pr15.pdf (new 2007)</p>	
14	Apr	BSE - Bovine Spongiform Encephalopathy:	

Wk#	Week MWF 2:30- 3:20	<p align="center">Topics and Readings</p> <p align="center"><i>Read and bring to class unless otherwise noted</i></p> <p align="center"><i>Readings marked "background" are not required reading</i></p>	<p align="center">DATES for Exams or Projects</p>
	16,18,20	<p>Commonly asked questions, FDA, http://www.cfsan.fda.gov/~comm/bsefaq.html</p> <p>Background - not required reading: World Health Organization. Understanding the BSE threat, 2002: http://www.who.int/csr/resources/publications/bse/BSEthreat.pdf</p> <p>USDA BSE resources: http://www.fsis.usda.gov/Fact_Sheets/Bovine_Spongiform_Encephalopathy_BSE/index.asp</p> <p>World Health Organization: http://www.who.int/mediacentre/factsheets/fs113/en/print.html</p> <p>Irradiation: Smith JS, Pillai S. IFT. Food Technology, 2004;58(11):48-55. http://members.ift.org/NR/rdonlyres/5BB0A8B0-ADF8-4721-A266-A0AEB84E1A79/0/foodsafety_irradiation.pdf</p>	
15	Apr 23, 25, 27, 30	<p>Microbiology:</p> <p>See 2005 Dietary Guidelines for Americans Chapter 10: http://www.health.gov/dietaryguidelines/dga2005/document/pdf/DGA2005.pdf Page 8: http://www.health.gov/dietaryguidelines/dga2005/document/pdf/brochure.pdf</p> <p>IFT, Bacteria Associated with Foodborne Diseases (Focus on pages 1-6): http://members.ift.org/NR/rdonlyres/3DEA7A91-DF48-42CE-B195-06B01C14E273/0/bacteria.pdf</p> <p>CDC, <i>Escherichia coli</i> O157:H7: http://www.cdc.gov/ncidod/dbmd/diseaseinfo/escherichiacoli_g.htm</p> <p>Dr. Elizabeth Andress “Hot Topics in Food Microbiology” April 25, 2007</p> <p>Background - not required reading: McCabe-Sellers BJ, Beattie SE. Food safety: emerging trends in foodborne illness surveillance and prevention. J Am Diet Assoc. 2004 Nov;104(11):1708-17. Obtain through www.sciencedirect.com</p> <p>Davidson PM, Harrison, MA. Resistance and adaptation to food antimicrobials, sanitizers, and other process controls, IFT Scientific Status Summary, 2002, http://members.ift.org/NR/rdonlyres/170B3700-63D3-4526-9B35-D23E1986BF26/0/antimicrobials.pdf</p> <p>Diet & Cancer: Common Questions About Diet and Cancer, American Cancer Society, http://www.cancer.org/docroot/ped/content/ped_3_2x_common_questions_about_diet_and_cancer.asp?sitearea=ped</p> <p>Food and Nutrition Misinformation American Dietetics Association, J Am Diet Assoc. 2006;106:601-7. www.eatright.org and then click on “position papers” or http://www.eatright.org/ada/files/MIS.pdf</p>	
	Tuesday May 1	Reading Day – no classes	
	Monday May 7	Exam 3, 3:30 - 6:30 pm	Mon May 7, 3:30-6:30

Presentation dates for graduate and honors students:

BSE April 16, 2006

Food Irradiation, April 18, 2007

Food Microbiology, April 20, 2007

If more than three graduate and honors students, then another possibility is Fish on Friday April 13, 2007

Do a practice of your presentation with Dr. Johnson between February 12 and March 9, 2007, by appointment, mjohnson@fcs.uga.edu.