

**University of Guelph**  
**College of Biological Science**  
**Department of Human Health and Nutritional Sciences**  
**Course Outline**  
**HHNS\*6400: Functional Foods and Nutraceuticals**  
**Fall 2009**

**Instructor:** Alison M. Duncan, Ph.D., R.D.  
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**Office Hours:** anytime by appointment

**Classes:** Wednesdays 2:30pm to 5:20pm in Food Science 241

**Course Description:**

This graduate-level course will explore numerous aspects of functional foods and nutraceuticals (FFN). Lectures will cover definitions of FFN, the global regulatory arena surrounding FFN, and overall issues related to FFN. Student-led literature presentations, guest seminars and class discussions on selected FFN topics will contribute to the breadth and depth of exposure to FFN. A semester research review paper will allow students to explore a specific topic within FFN in an in-depth manner.

**Course Objectives:**

Upon completion of this course, students should:

1. Have a comprehensive understanding of what constitutes functional foods and nutraceuticals.
2. Be aware of the global regulatory issues pertaining to functional foods and nutraceuticals.
3. Appreciate the impact of regulation on the development and commercialization of functional foods and nutraceuticals.
4. Understand the role of selected functional foods and nutraceuticals in health and disease.
5. Become aware of specific research areas within functional foods and nutraceuticals.
6. Have improved oral communication and discussion skills.
7. Have improved scientific writing skills.

**Evaluation:**

Research Review Paper	55%
FFN Literature Presentation / Discussion	25%
FFN Literature Report	15%
Semester Reflection Log Book	5%

**Tentative Class Schedule:**

<b>Week</b>	<b>Class Date</b>	<b>Topic</b>
1	September 16	Course Introduction LECTURE (Introduction to FFN, FFN Regulations)
2	September 23	LECTURE (Health Claims, FFN: The United States Context; part I)
3	September 30	Guest Selected FFN Topics Seminar Amanda Wright, Ph.D., Assistant Professor and Director, Human Nutraceutical Research Unit Department of Human Health and Nutritional Sciences University of Guelph
4	October 7	FFN Literature Presentations (Groups ) Guest Selected FFN Topics Seminar (3:30pm) Kim Bretz, B.Sc., N.D. (Naturopathic Doctor)
5	October 14	LECTURE (FFN: The United States Context; part II) FFN Literature Presentations (Groups )
6	October 21	Guest Selected FFN Topics Seminar Bruce Holub, Ph.D., Professor Emeritus Department of Human Health and Nutritional Sciences University of Guelph
7	October 28	LECTURE (FFN: The Canadian Context, part I) FFN Literature Presentations (Groups )
8	November 4	LECTURE (FFN: The Canadian Context, part II) FFN Literature Presentations (Groups )
9	November 11	Guest Selected FFN Topics Seminar Cynthia Richard, Ph.D., BScPh, Postdoctoral Fellow, Dept. of Human Health & Nutr. Sciences, U. of Guelph
10	November 18	LECTURE (FFN: The Canadian Context: NHPD) FFN Literature Presentations (Groups )
11	November 25	Guest Selected FFN Topics Seminar Maggie Laidlaw, Ph.D. Candidate, Dept of Human Health & Nutr. Sciences, Univ of Guelph and Director, Clinical Trials Division, Nutrasource Diagnostics Inc., Guelph, ON
12	December 2	FFN Literature Presentation (Groups ) LECTURE (FFN: Japanese Context, semester wrap-up)

### **Guest Selected FFN Topics Seminars:**

- Include your thoughts in your Semester Reflection Log Book after class.
- Come to the next class ready to briefly discuss the speaker's presentation.

### **Research Review Paper (worth 55%):**

- Your opportunity to expand your knowledge on a topic of your choice within FFN.
- Have your topic approved by the instructor as soon as possible.
- Make this an enjoyable process; work on it throughout the semester as you will need time to gather information, think about the material, etc.
- Format requirements: 10-15 pages plus references and cover page; stapled, computer print-out, one sided, double spaced, consistent reference style. **DUE before Wednesday December 2, 2009 in class.** There will be a late penalty of 5% per day including weekend days.

### **FFN Literature Presentation and Discussion (worth 25%):**

- Form a group of 4 fellow students, sign up for a time-slot and find one primary research article in a topic area of your choice within FFN.
- Have your article approved by the instructor and email the instructor a PDF of your article.
- Include the following in your presentation: background on topic, rationale of research (emphasize in the context of FFN), methods, results, implications of results, future research, emphasize how the research relates to FFN.
- Prepare specific questions to lead a class discussion on your article and the overall topic.
- Logistical Guidelines: Total time allotment: 20-25 minutes (it is very important to comply with this time limit); Oral Presentation for 15 minutes and lead a class discussion for 10 minutes.
- Involvement of all students: the week before FFN Literature Presentations and Discussions, each student will read the article and come to class ready to ask questions and actively participate in the discussion. Each student will reflect upon all FFN Literature Presentations and Discussions in their Semester Reflection Log Book.

### **FFN Literature Report (worth 15%):**

- Include: the research question involved; the rationale/background leading to the research question; describe and comment on the methods and protocols involved, summarize the results, comment on the relevance/significance of the results in the area of FFN, suggest what future research should be done, etc.
- Format requirements: 5-8 pages plus references and cover page, stapled, computer print-out, one sided, double spaced, consistent reference style. **DUE the class following your FFN Literature Presentation/Discussion.**

### **Semester Reflection Log Book (worth 5%):**

- The purpose is for you to reflect upon every class and expand your thoughts and ideas.
- It is best to do it the following day while the issues are fresh in your mind.
- Make note of your thoughts articulated into at least 3 key concepts/issues that you learned. Make note of any questions remaining in your mind and/or things you intend to follow-up on.
- If you were absent, state that and note what you gathered from your classmates and/or your own reading and study.
- Format requirements: no length requirement (recommend <1 page per class), cover page, stapled, computer print-out, one sided. **DUE before Monday December 7, 2009 by 4pm** in my office ANNU347. There will be a late penalty of 5% per day including weekend days.