

University of Guelph
College of Biological Science
Department of Human Health and Nutritional Sciences
Course Outline
HBNS*6400: Functional Foods and Nutraceuticals
Fall 2007

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 FFN exposure. A semester research review paper will allow students to explore a specific topic within FFN in an in-depth manner. Students will share results of their research review paper with their fellow students in an oral presentation at the end of the semester.

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:

Week	Class Date	Topic
1	September 12	Course Introduction LECTURE (Introduction to FFN, FFN Regulations, Health Claims)
2	September 19	no class today; use time for FFN Lit Presentation groups
3	September 26	LECTURE (FFN: The United States Context; part I)
4	October 3	LECTURE (FFN: The United States Context; part II) FFN Literature Presentations (Group 1) Guest Selected FFN Topics Seminar (3:30pm) Kim Brietz, B.Sc., N.D. (Naturopathic Doctor)
5	October 10	FFN Literature Presentations (Group 2) Guest Selected FFN Topics Seminar (3pm) Ming Cha, Ph.D., Research Associate Department of Food Science, University of Guelph
6	October 17	LECTURE (FFN: The Canadian Context, part I) FFN Literature Presentations (Groups 3, 4)
7	October 24	FFN Literature Presentations (Group 5) Guest Selected FFN Topics Seminar (3pm) Amanda Wright, Ph.D., Assistant Professor and Director, Human Nutraceutical Research Unit Department of Human Health and Nutritional Sciences University of Guelph
8	October 31	LECTURE (FFN: The Canadian Context, part II) FFN Literature Presentations (Groups 6, 7)
9	November 7	FFN Literature Presentations (Group 8) Guest Selected FFN Topics Seminar (3pm) Julie Conquer, Ph.D., FFN Consultant RGB Consulting, London, ON
10	November 14	LECTURE (FFN: More Canadian Context; NHPD) FFN Literature Presentations (Groups 9, 10)
11	November 21	Guest Selected FFN Topics Seminar Bruce Holub, Ph.D., Professor Emeritus Department of Human Health and Nutritional Sciences University of Guelph
12	November 28	LECTURE (FFN: Japanese Context, semester wrap-up) FFN Literature Presentations (Groups 11-last group)

Guest Selected FFN Topics Seminars:

- Attendance is expected.
- 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%):

- The research paper is your opportunity to explore and expand your knowledge on a topic of your choice within FFN.
- You must have your topic approved by the instructor as soon as possible.
- Your research paper should be an enjoyable process so you should work on it throughout the semester as you will need time to gather information, think about the material, etc.
- Follow these 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 5, 2007 by 4pm** in my office ANNU347. 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 for posting to the course website.
- 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, etc.
- 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 articles 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.
- Follow these 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.** There will be a late penalty of 5% per day including weekend days.

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 or pay close attention to.
- If you were absent, state that and note what you gathered from your classmates and/or your own reading and study.
- Follow these format requirements: no length requirement (recommend less than one page per class), cover page, stapled, computer print-out, one sided.
- **DUE before Wednesday December 5, 2007 by 4pm** in my office ANNU347. There will be a late penalty of 5% per day including weekend days.