

Last updated September 7, 2011

**University of Guelph
College of Biological Science
Department of Human Health and Nutritional Sciences
Course Outline**

**HHNS*6010: Seminar in Human Health and Nutritional Sciences
Fall 2011, Winter 2012, Summer 2012**

Instructor: Alison M. Duncan, Ph.D., R.D.
Office: ANNU 347
Phone: 824-4120 ext. 53416
Email: amduncan@uoguelph.ca
Office Hours: anytime by appointment

Class Meeting Times: We will meet 4 times per semester. Times will be announced over email and will not conflict with any other HHNS graduate course.

Course Description:

This course will provide a forum for community and communication among M.Sc. Coursework students and will be led by the Coordinator of the M.Sc. Coursework program. This is a graduate level course designed to explore issues and concepts related to the process of science including its comprehension, interpretation and communication. Students will gain a deeper appreciation for the value of all levels of research through a detailed exploration of experimentation at the cell culture, animal and human levels. The ability to give and receive criticism in the scientific arena will be explored in a class session and practiced through an assignment. Research communication will be studied and students will develop an appreciation for process-oriented scientific issues such as the allocation of credit, the management of data and the publication process. Other skills will be developed such as scientific writing, oral presentations and the use of statistical analysis programs. Students will also be expected to attend scheduled HHNS departmental seminars during the Fall and Winter semesters, which may be discussed and reflected upon during HHNS*6010 class meetings. Although students formally register for this course in the Summer semester, the class meets on a periodic basis throughout the year to allow it to serve as a community resource for the M.Sc. Coursework program.

Course Objectives:

Upon completion of this course, students should:

1. Appreciate the issues involved in cell culture, animal and human experimentation.
2. Have an improved ability to interpret cell culture, animal and human studies.
3. Learn how to give and receive criticism.
4. Have an improved ability to communicate research.
5. Gain an appreciation for specific issues involved in the responsible conduct of science.
6. Have improved scientific writing skills.

Course Evaluation:

Multi-Level Research Assignment	60%
Critical Feedback Assignment	40%

Class Topics:

The class schedule will be determined as the year progresses; you will be notified about each class by email. We will have a total of 12-13 class meetings. Topics to be covered will include:

- Exploration of human experimentation
- Exploration of animal experimentation
- Exploration of cell culture experimentation
- Writing skills
- Oral presentation skills
- Research communication
- Giving and receiving criticism
- Understanding statistics
- Discussion of reasonable conduct of science
- General class meetings as needed
- Other topics of interest to class group

Class Schedule Working Table

Meeting	Date	Class Focus
1	Date: Mon. Sept 19, 2011 Time: 9am-10am Location: TBD	Class Meeting Introductions, Coordination, Discussion
2	Date: Tues. Oct 18, 2011 Time: 9:30am-noon Location: TBD	Getting Started on Your Research & Oral Presentation Skills The Learning Commons Dale Lackeyram, J.P. Lewis, Kim Garwood
3	Date: Tues. Nov 8, 2011 Time: 9:30am-11:30am Location: TBD	Communication of Research from a Journalist's Perspective Guest Speaker: Owen Roberts, Ph.D., Director of Research Communications, University of Guelph
4	Date: Tues Nov. 29, 2011 Time: 9:30am-11:30am Location: TBD	An Exploration of Animal Experimentation Lecture and Discussion Justine Tishinsky, B.Sc., Ph.D. Candidate Ph.D. Candidate, Human Health and Nutritional Sciences
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Critical Feedback Assignment (worth 40%)

The purpose of this assignment is to practice your critical feedback skills. To do this, you will participate in the peer-review process by providing a review of a scientific article of your choosing (approved by the instructor). You will then proceed as if you have been sent this manuscript for

review. To guide you in your review, we will discuss relevant concepts and approaches in a class session on giving and receiving criticism.

Format Requirements: no page requirement, computer printed or emailed to me, single-sided, due date will be during the final exam period of the summer semester or sooner. Please hand in the article with your assignment (if you email me the assignment then email the PDF of the article with it). Due date will be mid-way through the summer semester.

Multi-Level Research Assignment (worth 60%)

The purpose of this assignment is to appreciate the value of multi-level research in the overall understanding and progression of a selected topic. You will select a topic of your choice and explore its literature at the cell culture, animal and human experimentation levels. For this assignment, you will:

- choose a topic of interest to you and have it approved by the instructor
- find articles at the level of each type of research (cell culture, animal, human) using a literature review approach
- work towards understanding the progression of your topic through each level of research
- organize your paper into sections including: introduction, cell culture experimentation, animal experimentation, human experimentation, summary/conclusions
- within each research level section, describe the research that has been done; comment on the relevant issues and assess its contribution to the progression of your topic; what is its value; what are the strengths/limitations, etc. Note that this review is not intended to be comprehensive but rather an indication of the type of research done at each level. Most core to this assignment is your discussion/commentary of the relative value of each level of research; strengths, limitations, how the research contributes to progressing the knowledge for this topic.
- in your summary/conclusion section, pull the levels of research together; speak to the value of multi-level research; comment on the knowledge gained by the totality of the evidence for your selected topic

Format Requirements: 10-15 pages plus references and cover page; computer printed or emailed to me, double-spaced, single-sided, due date due date will be during the final exam period of the summer semester or sooner.