

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

HHNS*6010: Seminar in Human Biology and Nutritional Sciences
Fall 2009, Winter 2010, Summer 2010

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: to be announced over email; whenever possible we will have class close to another grad class or department seminar to insert time management efficiency; for Fall semester we will aim for Mondays at 1:30pm (Department Seminar is Mondays at 3:30pm)

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 likely have a total of 12 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 (this will be filled in as we go and I will email the details)

Meeting	Date	Class Focus
1	Date: Time: Location:	
2	Date: Time: Location:	
3	Date: Time: Location:	
4	Date: Time: Location:	
5	Date: Time: Location:	
6	Date: Time: Location:	
7	Date: Time: Location:	
8	Date: Time: Location:	
9	Date: Time: Location:	
10	Date: Time: Location:	
11	Date:	

	Time: Location:	
12	Date: Time: Location:	

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 level. For this assignment, you will:

- choose a topic and have it approved by the instructor
- find articles at the level of each type of research (cell culture, animal and 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.
- 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, double-spaced, single-sided, due date due date will be during the final exam period of the summer semester.

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, you will be provided with instructions similar to those provided to journal reviewers. In addition, you will use the concepts and approaches learned in your class session on giving and receiving criticism.

Format Requirements: no page requirement, computer printed, single-sided, due date will be during the final exam period of the summer semester. Hand in the article with your assignment.