

University of Guelph
College of Biological Science
Human Health and Nutritional Sciences
COURSE OUTLINE

Advanced Study in Human Health and Nutritional Sciences

HK*4371/2 - Fall 2016 and Winter 2017

Completion of this course gives 0.5 credit for HK*4371 in semester 1 and 0.5 credit for HK*4372 in semester 2. This project should require 9 to 12 hours per week. Students will be with their faculty advisor for 2 semesters.

All of the information that you need is available here.† General questions regarding due dates, procedural issues, etc., should be directed to the course assistant, Andra Williams.

Credit Value = 1.0 Must have completed 12.0 credits in order to register.

Teaching team

Coordinator: D.J. Dyck, ddyck@uoguelph.ca, ANNU 349

Course Assistant: Andra Williams, amwillia@uoguelph.ca, ANNU 352

Course schedule

There is only one formal class meeting for this course: the last class meeting of the Winter 2017 semester (Wednesday, April 5, 2017, 7:00-10:00 pm) for student seminar presentations (rooms - TBA). We will also try to schedule presentations during the day for those who are able.

Learning goals and rationale

To develop:

1. critical thinking, 2. integration of information, 3. scientific writing skills, 4. independent thought process, 5. scientific oral presentation skills, 6. analytic and data analysis skills, 7. how to design a study and generate hypotheses

Course Resources

None.

Course Content

Independent research and writing. Students should regularly consult with their faculty advisor to ensure adequate progress.

Methods of Assessment

Assessment				
Form of Assessment	Weight of Assessment	Due Date of Assessment	Course Content /Activity	Learning Outcome Addressed
Research Proposal*	10%	Wednesday, October 12, 2016 (by 4 pm)		1, 2, 3, 4, 7
Seminar	25%	Wednesday, April 5, 2017		1, 2, 4, 5
Paper**	65%	Friday April 7, 2016 (by 4 pm)		1, 2, 3, 4, 6, 7

* Due to Andra Williams' office, ANNU 352, by 4:00 pm

** Papers should be submitted by email directly to the advisor **and cc'd to Andra Williams, amwillia@uoguelph.ca, to confirm that papers have been submitted on time.** Extensions are generally not granted, and must be done by the Course Coordinator (not the advisor).

Note: Late penalty: 5% per day

Presentation Schedule - t.b.a.

Click on the link below to view the form and grading structure that will be used to evaluate your presentation –

[HK*4372 Presentation Evaluation Form](#)

Important Dates

Research Proposal, Wednesday, October 12, 2016

Seminar, Wednesday, April 5, 2016

Paper, Friday April 7, 2016 **Note: Late penalty: 5% per day**

General Course Information

How to Register for a Research Project Course:

In order to register for the course, you first need to find a faculty advisor. This would be someone who's area of research interests you. Generally, this can be accomplished by looking at faculty profiles to see who's research interests you, or possibly based on who taught a favourite course that really stimulated you. Then, email that faculty to see if they will advise you. Your advisor must be a faculty member - see below.

Once you have found an advisor, you and your advisor need to fill out/sign the [course information form](#) (this is different from the University course waiver form), and then bring this form along with the University course waiver form to the course assistant, Mrs. Andra Williams in our main office (ANNU 352), who will sign the instructor consent on your waiver form.

Please note that your faculty advisor only signs your course information form, and NOT the University course waiver form - either the course assistant (Andra Williams) or course coordinator (Dr. David J. Dyck) does that.

Please note that EVERY student registered in a research project course within the College of Biological Science is required to complete a brief, online safety module. This is NOT required of students taking the Literature Review course (HK*4230), or those students whose research ONLY requires the analyses of data already obtained by previous studies e.g. surveys, etc., and does not actually involve any hands on experiential learning.

You, your advisor, and the research project:

1. Begin by identifying a GENERAL area of research for your topic. Clicking on faculty research links on the department web site is a good way to begin, or by reading recent publications of a potential advisor to determine your level of interest in that subject. Be open minded about your topic and advisor. Also, the advisor must be a University of Guelph faculty ... but not necessarily from OUR department. Clearly, the topic should be something relevant to human health, nutrition, or metabolism. Graduate students, research technicians, postdoctoral fellows, etc., CANNOT act as advisors.
2. Start early !!!!! Most faculty will only accept a few students at any given time, so "spots" are limited. Some ways of approaching faculty are more successful than others. Contact can be made either by phone, email, or in person. Provide as much information about yourself as you can: your program; general background including courses, previous research or laboratory experience; motivation/reason for doing research, etc.

EVALUATION

Research Proposal

All students will prepare a research proposal for their intended study. Proposals should be approximately 3 pages and follow the following format:

1. Course name, title of project, student name/ID, advisor name.
2. 12-point font, double-spaced
3. Approximately a one page (succinct!) introduction with the necessary background information, ending in a clear statement of the hypothesis(es) or objectives. A few key references may be used in the text (abbreviated journal name, volume, pages, year) as necessary.
4. Approximately one page or less of methods to be utilized, ending with the anticipated findings and how these would support your hypotheses.
5. A final page indicating the approximate budget. This does not need to be exact; it is designed to give the students an appreciation and perspective of the costs associated with research. This will likely require some input from your project advisor. Even if your project is a part of a larger study, you should indicate the costs relevant to what you are doing.

Proposals are due in Andra Williams' office (course assistant) (ANNU 352) **by 1600 on Wednesday, October 12, 2016**. LATE SUBMISSIONS ARE PENALIZED. Proposals will be graded by the course coordinator.

Seminars

The seminar at the end of the semester is a presentation of the results of your work. Students will have 10 min presentation plus a 5 min question period.

Power Point should be used. Please email, or bring in your PowerPoint presentation on a USB stick, to Andra Williams (amwillia@uoguelph.ca, ANNU 352) **24 hours** before your scheduled presentation time. Otherwise, the time to prepare the computer or to trouble shoot will be deducted from the allotted time. Presentations that are revised after email submission must be brought to the seminar on a USB memory stick at least 10 min prior to the start of the session.

Another option for students is to bring in their own laptops to hook up to the projector. However, please understand that due to the large number of students and rigorous requirement to stick to strict timing, we simply cannot afford delays due to unforeseen complications e.g. the projector and laptop not "recognizing each other", requirement for various adaptors if a Mac is used, etc, etc. If you are certain that you can quickly and seamlessly hookup your laptop, then please indicate this to Andra Williams. Please ... if you have a Mac, ensure that you have the proper adaptor to connect your laptop to the projector cable - these will not be provided!

Attendance at the complete presentation session is **MANDATORY**. The schedule for presentations will be posted on the website by March 30, 2017.

Seminars will be graded by Human Health & Nutritional Sciences faculty. Due to room size limitations, only the students presenting may attend (i.e. no guests).

Paper

The paper, including an abstract (200 words maximum), is a detailed presentation of the findings of your work and should be handed to the course assistant for evaluation by your advisor. The paper format should follow standard research publications i.e. Major headings including introduction, methods, results, discussion and references, as well as any necessary tables and figures. Please discuss the expectations with your advisor. The format to be used for in-text referencing and the bibliography should also be agreed upon by you and your advisor. Typically, this would be a referencing style used by one of the major physiology or nutrition journals; however, there is no specific format that must be followed for this course.

The abstract enables the reader to identify the basic content of a document quickly and accurately. References to the literature are usually omitted. The abstract should:

- a. state the principal objective(s), question(s), or hypothesis (es) under investigation;
- b. state the scope of the investigation;
- c. briefly describe the methodology used;
- d. summarize the results using specific data and indicating statistical significance;
- e. state the principal conclusions;
- f. state the scientific or clinical relevance.

Papers are due by 1600 on Friday, April 7, 2017. LATE SUBMISSIONS ARE PENALIZED. Papers should be submitted by email directly to the advisor (**and cc'd to Andra Williams, amwillia@uoguelph.ca to confirm that papers have been submitted on time**). Extensions are generally not granted, and must be done by the Course Coordinator (not the advisor).

Hints

The Seminars

- Use several simple graphics (graphs and charts) rather than one complicated one, especially if you plan to discuss a subject at length. If the analysis of the graphics by a viewer will require more than 20 sec, consider using a sequence of graphs to progressively disclose the information. The more changes that you use, the less chance of losing your audience.
- Don't leave a graphic on the screen after discussing it.
- Limit each graphic to one main idea.
- Use graphics or illustrations wherever possible.

- Don't go too fast! To analyse a graph requires more time than viewing a visual image. Add a few seconds to your own analysis time (since you are more familiar with it than your audience!).
- Don't make things too complicated or cluttered for your audience.

Examples:

- When using line graphs, do not exceed 3 to 4 lines. Simplify scales.
- When using bar graphs, do not exceed 7-8 bars. Avoid crowding.
- When presenting text, limit the text to 6-8 words per line and 6 lines per slide.
DO NOT OVERDO THE AMOUNT OF TEXT IN YOUR PRESENTATIONS OR USE TOO SMALL A FONT.

The more familiar you are with the information and graphics, the better your presentation. Preview your material and run through it prior to presentation.

Evaluation of Seminars:

The following aspects of your presentation will be considered in establishing a grade:

- Is the research hypothesis clear and delimited?
- Is there a logical introduction to the hypothesis?
- Is there a clear description of the important details of the methods used? the protocol followed? the important details of the results?
- Were logical conclusions drawn around the research hypothesis?
- Was the presentation clear and concise verbally? visually?

The paper

- a. There is not a minimum or a maximum number of references. The number will be determined by the topic of the research. Use the primary literature. Abstracts and reviews may be included in certain circumstances. Do not use the Internet unless you are quoting information from electronic versions of peer-reviewed journals.
- b. It is often beneficial to write the Abstract for the paper after completing the Introduction and the Methods sections but before starting the Results and Discussion. This helps to focus your thinking and assists in the identification of the significant ideas.
- c. The following aspects of your paper will be considered in establishing a grade:
 - Is the research hypothesis clear and delimited?
 - Does the introduction logically support the hypothesis?
 - Is there a clear description of the important details of the methods used? the protocol followed? the important details of the results?
 - Were logical conclusions drawn around the research hypothesis?
 - Was the paper organized in a clear and concise manner?

Don't forget ... your advisor will be grading your research paper! The guidelines above are just that ... guidelines! Be clear on what your advisor expects!

Course and University Policies

When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the undergraduate calendar for information on regulations and procedures for Academic Consideration.

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Student Accessibility Services (formerly the Centre for Students with Disabilities) as soon as possible.

For more information, contact Student Accessibility Services at 519-824-4120 ext. 56208 or email csd@uoguelph.ca.

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar.

E-mail Communication

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

Drop Date

The last date to drop one-semester courses, without academic penalty, is the 40th class day. To confirm the actual date please see the schedule of dates in the Undergraduate Calendar. For regulations and procedures for Dropping Courses, see the Undergraduate Calendar.

Copies of out-of-class assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

Grading

Papers are graded by your faculty advisor. Extensions are generally not granted, and must be done by the Course Coordinator (not the advisor).

Seminars are graded by a faculty member from Human Health and Nutritional Sciences who will attend the seminar session.

Campus Resources

If you are concerned about any aspect of your academic program:

Make an appointment with a Program Counsellor in your degree program.

If you are struggling to succeed academically:

There are numerous academic resources offered by the Learning Commons including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills. You can also set up individualized appointments with a learning specialist.

If you are struggling with personal or health issues:

Counselling services offers individualized appointments to help students work through personal struggles that may be impacting their academic performance.

Student Health Services is located on campus and is available to provide medical attention.

For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations.

If you have a documented disability or think you may have a disability:

Student Accessibility Services (SAS) formerly Centre for Students with Disabilities can provide services and support for students with a documented learning or physical disability. They can also provide information about how to be tested for a learning disability.