

**University of Guelph**  
**College of Biological Science**  
**Department of Human Health & Nutritional Sciences**  
**Course Outline**  
**HHNS 6040: Research Fronts in Nutritional and Nutraceutical Sciences**  
**Fall 2017**

### **Course Description**

Building on an information base in nutrition, biochemistry and physiology, the course comprises selected research topics relating to the importance of nutrition as a determinant of health throughout the life span and in relation to prevention and treatment of disease. Distinction will be drawn between the metabolic basis of nutrient essentiality and the health-protecting benefits of nutrients, nutraceuticals, and phytochemicals.

### **Teaching Team**

Dr. Genevieve Newton - newton@uoguelph.ca  
GFTC 267 - office hours can be scheduled by appointment.

### **Course Schedule**

Wednesday 9:30am – 12:20pm, MCKN 227

### **Learning Goals & Rationale**

Upon completion of this course, students will be able to (Learning Outcomes):

- 1) Describe current topics in nutrition and nutraceutical sciences.
- 2) Critically evaluate research studies, with an emphasis on study quality.
- 3) Communicate effectively in formal and informal academic writing, with an emphasis on critical analysis.
- 4) Communicate effectively in formal and informal oral presentations, with an emphasis on critical analysis.
- 5) Communicate research findings using plain language.
- 6) Integrate knowledge of research findings and apply to the creative development of novel study designs.
- 7) Work effectively with peers to meet learning goals through collaboration.

### **Course Content**

Week 1-3 of the course will introduce students to the **research, presentation, and writing** skills that will be emphasized in the course. Targeted workshops to practice these skills will take place, with students having the opportunity to practice and improve their abilities in a non-evaluative environment.

Weeks 4-9 of the course will include **individual student presentations, breakout groups, and class discussions**. Each week will be dedicated to a current topic in nutrition and nutraceutical science research, and will be addressed by ~4 research paper presentations done individually by students. It is intended that the individual presentations will follow a Journal Club format. A detailed description of the group presentation and the assignment marking scheme is provided in the course website. It is expected that students will read AT LEAST TWO OF the papers that will be discussed in each upcoming class, and will contribute questions to class discussions on a weekly basis. Topics to be covered include:

- 1) Omega-3 fatty and cognition
- 2) Caloric restriction and aging
- 3) Salt and hypertension
- 4) Vitamin D and Multiple Sclerosis
- 5) Metabolically healthy obese
- 6) Coffee and liver health

Weeks 10-12 of the course will include **group student presentations** and **class discussions**. The group student presentations will follow a “teaching research” seminar format. Each topic will be addressed by groups of 3-4 students assuming the roles of educators, with presentation of background material and primary and secondary literature aimed at answering a broadly focused research question of their choice. A detailed description of the group presentation and the assignment marking scheme is provided in the course website.

So, **each student will make two presentations throughout the course**, one individually at some point during weeks 4-9 and one as a group member during weeks 10-12.

In addition, **each student will write one term paper**. The essay may be on a topic of interest in the field of nutrition and nutraceutical sciences. A detailed description of the term paper and the assignment marking scheme is provided in the course website.

Students are expected to attend class each week, and a portion of the final course grade will be derived from participation in breakout groups and class discussions. Breakout groups and class discussions will include activities such as communicating research findings using plain language, developing novel research ideas, and critically evaluating research studies.

**Table 1: Tentative Schedule**

<b>Week</b>	<b>Description</b>	<b>Activities</b>	<b>Work &amp; Submissions</b>
1) September 13th	Introduction  Research Critique Workshop	Introduction to course presentation (G. Newton)  Breakout groups and class discussion	Read course syllabus  <b>Sign up for individual and group presentations</b>
2) September 20th	Presentation Skills Workshop	Presentation Skills Workshop  Example Presentation	Read assigned paper
3) September 27th	Writing Skills Workshop	Writing Skills Workshop	Read sample term papers
4) October 4th	Individual Presentations (n-3 & Cognition)  Breakout groups and class discussion	Student presentations  Breakout groups and class discussion	Read at least 2 assigned papers  Participate in activities and discussions  <b>Submit Term Paper Proposal</b>

5) October 11th	Individual Presentations (Caloric Restriction & Aging)  Breakout groups and class discussion	Student presentations  Breakout groups and class discussion	Read at least 2 assigned papers  Participate in activities and discussions
6) October 18th	Individual Presentations (Salt and Hypertension)  Breakout groups and class discussion	Student presentations  Breakout groups and class discussion	Read at least 2 assigned papers  Participate in activities and discussions
7) October 25th	Individual Presentations (Vitamin D & Multiple Sclerosis)  Breakout groups and class discussion	Student presentations  Breakout groups and class discussion	Read at least 2 assigned papers  Participate in activities and discussions
8) November 1st	Individual Presentations (Metabolically Healthy Obese)  Breakout groups and class discussion	Student presentations  Breakout groups and class discussion	Read at least 2 assigned papers  Participate in activities and discussions
9) November 8th	Individual Presentations (Coffee & Liver Health)  Breakout groups and class discussion	Student presentations  Breakout groups and class discussion	Read at least 2 assigned papers  Participate in activities and discussions
10) November 15th	Group Presentations Class Discussion	Student presentations Class Discussion	Participate in discussion
11) November 22nd	Group Presentations Class Discussion	Student presentations Class Discussion	Participate in discussion
12) December 29th	Group Presentations Class Discussion	Student presentations Class Discussion	Participate in discussion  <b>Submit Term Paper</b>

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## Methods of Assessment

Assignments in this course are as follows:

- 1) **Individual Presentation:** Each student will give one individual presentation of assigned primary research article. The individual presentation will follow a journal club format. A detailed description of the individual presentation and the assignment marking scheme is provided in the course website.
- 2) **Group Presentation:** Each student will give one group presentation (in groups of 3-4 students) on a topic of choice. The group presentation will follow a teaching research seminar format. A detailed description of the individual presentation and the assignment marking scheme is provided in the course website.
- 3) **Term Paper:** Each student (working either individually or in groups of up to three students) will write one term paper on a topic of choice. The paper will follow the format of a critical research review. A detailed description of the term paper and the assignment marking scheme is provided in the course website.
- 4) **Term Paper Proposal:** Each student (working either individually or in groups of up to three students, as for the term paper) will write one term paper proposal. The proposal precedes the term paper assignment, and is a formal request for term paper topic approval based on submission of a comprehensive topic description. A detailed description of the term paper proposal and the assignment marking scheme is provided in the course website.
- 5) **Participation:** Each student will receive a grade for participation across the semester, particularly in breakout group and class discussions.

**Table 2: Course Assessments**

Form of Assessment	Weight of Assessment	Due Date of Assessment	Course Content/Activity	Learning Outcome(s) Addressed
Individual Presentation	30%	Assigned during week 1 to each student	Oral Presentation Individual	1,2,4
Group Presentation	30%	Assigned during week 1 to each student	Oral Presentation Group	1,2,4,7
Term Paper	30%	Final term paper due Wednesday November 30th	Written submission Individual (group possible) work	1,2,3 (7 if working in group)
Term Paper Proposal	5%	Term paper proposal due Wednesday October 5th	Written submission Individual (group possible) work	1,2,3 (7 if working in group)

Participation	5%	Continuous across semester	Breakout and Class Discussions	1,2,4,5,7
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### **Important Dates**

See dates listed in Table 2 for assignment submissions.

The last date to drop one-semester courses, without academic penalty, is Friday November 3rd.

Refer to the Graduate Calendar for the schedule of dates:

<https://www.uoguelph.ca/registrar/calendars/graduate/current/sched/sched-dates-f10.shtml>

### **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 in writing, with your name, id#, and e-mail contact.

See the graduate calendar for information on regulations and procedures for Academic Consideration:

<https://www.uoguelph.ca/registrar/calendars/graduate/current/>

#### 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 the Centre for Students with Disabilities (soon to be re-named Student Accessibility Services) as soon as possible.

For more information, contact CSD at 519-824-4120 ext. 56208 or email [csd@uoguelph.ca](mailto:csd@uoguelph.ca) or refer to the CSD website. The standard statements are available on the AVPA website (undergraduate courses) or from the Office of Graduate Studies (Graduate Courses).

#### 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. The Academic Misconduct Policy is detailed in the Graduate Calendar:

[http://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec\\_d0e1687.shtml](http://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e1687.shtml)

#### 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 Friday November 3rd.

Refer to the Graduate Calendar for the schedule of dates:

<https://www.uoguelph.ca/registrar/calendars/graduate/current/sched/sched-dates-f10.shtml>

### 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 in any electronic media 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

The Grade Interpretation description provided in the University of Guelph 2016-2017 Graduate Calendar forms the basis for determination of grades in this course

<https://www.uoguelph.ca/registrar/calendars/graduate/2017-2018/genreg/genreg-as-gradeint.shtml>)

All assignments are due by the submission dates presented here. Late assignments will be penalized by 5% per day off the assigned grade. Assignments that are more than a week late will receive a grade of 0. If there are extenuating circumstances (such as illness) that preclude submission by the assigned date students must contact the instructor *before* that date to seek permission for late submission. Failure to do so may result in penalties being applied.

Table 3: University of Guelph Graduate Grade Interpretation Description

Percentage Grade	Letter Grade	Description
90-100	A+	<b>Outstanding.</b> The student demonstrated a mastery of the course material at a level of performance exceeding that of most scholarship students and warranting consideration for a graduation award.
80-89	A- to A	<b>Very Good to Excellent.</b> The student demonstrated a very good understanding of the material at a level of performance warranting scholarship consideration.
70-79	B	<b>Acceptable to Good.</b> The student demonstrated an adequate to good understanding of the course material at a level of performance sufficient to complete the program of study.
65-69	C	<b>Minimally Acceptable.</b> The student demonstrated an understanding of the material sufficient to pass the course but at a level of performance lower than expected from continuing graduate students.
0-64	F	An inadequate performance.

### **General Campus Resources**

The Graduate Calendar is the source of information about the University of Guelph's procedures, policies and regulations which apply to graduate programs:

<https://www.uoguelph.ca/registrar/calendars/graduate/current/>

**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.