1 Course Details

1.1 Calendar Description

First part of a two-semester course HK*4511/2. In consultation with a faculty advisor, the student will select, design and complete an independent project on the scholarship of teaching, learning and/or knowledge transfer in human health. This is a two-semester course offered over consecutive semesters; when you select it you must select HK*4511 in the first semester and HK*4512 in the second semester (a grade will not be assigned to HK*4511 until HK*4512 has been completed). Students must make arrangements with both a faculty advisor and the course coordinator at least one semester in advance and the signature of the course coordinator will be required to select the course. A departmental registration form must be obtained from the course coordinator and submitted no later than the second class day of the semester in which the student is registered for the course.

Pre-Requisite(s): 10.00 credits including BIOL*1080
Restriction(s): Course coordinator consent required.

1.2 Course Description

This 0.5 credit course is an independent research course (Part 1 of 2) on the scholarship of teaching, learning and knowledge transfer in human health. The research project scope and design will be determined by the student and their faculty advisor. This is an experiential/work integrated learning course. Research projects will generally fall into one of two workplace-relevant areas: 'teaching and learning' in schools, colleges and universities and 'knowledge transfer' in community, business and government environments. In both areas, each project should identify multiple stakeholders whose viewpoints and interests should be considered in the development of the project. For example, in the case of a teaching and learning project, the stakeholders might be: students, teachers, provincial government and textbook companies. In the case of knowledge transfer it might be: citizens/consumers, healthcare practitioners, local government, competing businesses. All research projects should be based on basic project management techniques with clearly defined goals and milestone progression.

1.3 Timetable

There are no scheduled class meetings. Individual meetings between a student and their faculty advisor are scheduled separately.
1.4 Final Exam

There is no final exam in this course.

2 Instructional Support

2.1 Instructional Support Team

<table>
<thead>
<tr>
<th>Course Co-ordinator:</th>
<th>William Bettger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email:</td>
<td><a href="mailto:wbettger@uoguelph.ca">wbettger@uoguelph.ca</a></td>
</tr>
<tr>
<td>Telephone:</td>
<td>+1-519-824-4120 x53747</td>
</tr>
<tr>
<td>Office:</td>
<td>ANNU 344</td>
</tr>
<tr>
<td>Office Hours:</td>
<td>By Appointment (via e-mail)</td>
</tr>
</tbody>
</table>

3 Learning Resources

3.1 Learning Resources

There are no Learning Resources required.

4 Learning Outcomes

4.1 University Learning Objectives Met by the Course

Learning Outcomes in HK*4511

A. General Skills

1. Problem Solving & Critical Thinking

- Critically evaluate ideas and arguments by gathering and integrating relevant information, assessing its credibility, and synthesizing evidence to formulate a position.
- Identify problems and independently propose solutions using creative approaches, acquired through interdisciplinary experiences, and a depth and breadth of knowledge/expertise.
- Accurately interpret and use numerical information to evaluate and formulate a position.

2. Communication

- Accurately and effectively communicate ideas, arguments and analyses, to a range of audiences, in graphic, oral and written form.
3. Professional and Ethical Behaviour

- Demonstrate personal and professional integrity by respectfully considering diverse points of view and the intellectual contribution of others, and by demonstrating a commitment to honesty and equity, and awareness of sustainability, in scientific practice and society at large.
- Plan for professional growth and personal development within and beyond the undergraduate program.

B. Degree Related Skills & Knowledge

1. Scientific Method

- Apply scientific methods and processes by formulating questions, designing investigations and synthesizing data to draw conclusions and make scientifically-based decisions.
- Generate and interpret scientific data using quantitative and qualitative methodologies.

2. Breadth & Depth of Understanding in a Particular Scientific Discipline

- Apply the core concepts of math, physics, chemistry and biology to a chosen scientific discipline.
- Demonstrate knowledge of the ethical, economic, commercial and social implications of scientific discovery and technological innovation.
- Interpret current scientific concepts and gaps in knowledge (and methods) in light of the historical development in the life or health sciences.
- Apply an integrated and broad foundation in life and health sciences to problems related to human nutrition, human kinetics and bio-medical sciences.
- Demonstrate knowledge of the impact of nutrition, physical activity and exercise and bio-medical sciences on health and performance, and provide mechanistic explanations for associated biological events at the molecular, cellular and whole organism levels of organization.
- Demonstrate an understanding of the science of prospective health; the pivotal role of individual nutrigenomic and nutri-epigenetic analyses and the critical role of evidence-based, lifestyle medicine in the effective application of this prospective health approach to healthcare.
- Define and analyze the interactions of nutrition and exercise on the metabolic control of health and disease.

3. Scientific Technology & Techniques in a Scientific Discipline

- Critically analyze experimental design, data analysis and interpretation in human nutrition, human kinetic and bio-medical science research.

5. Teaching and Learning Activities
5.1 Course Schedule

The due dates for the research proposal plus project management plan, and the final project (written form) submission, are set by the faculty research advisor. Generally the research proposal plus project management plan are due within the first 6 weeks of the Semester 1. The final project (written form) should not be submitted later than the end of the first week of exams of Semester 2. The due date for the final oral presentation will be set during the semester (Semester 2) for sometime in the last week of classes or first week of exams. Please be sure your final oral presentation is ready to be delivered on the Monday of the final week of classes of the HK*4512 course. As this is an experiential/work-integrated learning course, there will be 3 sets of professional development self reflections (written) required. Due dates for these reflections are determined by the research advisor in consultation with the student. Suggestions for submissions are after 6 weeks, 14 weeks and 24 weeks of the 2-semester course.

6 Assessments

6.1 Methods of Evaluation (links to Learning Outcomes)

- Research proposal plus project management plan: 10% - evaluated by faculty research sponsor (A1,2,3,B1,B2)
- Final paper/project artifact: 55% - evaluated by faculty research sponsor (A1,2,3,B1, 2,3)
- Final oral presentation and discussion of workplace relevance: 20% - evaluated by all faculty research sponsors at the presentation, including the course coordinator who will serve as an external workplace specialist. (A1,2,3,B1,2,3)
- Guided self-reflections (3 sets) on professional development 15% - evaluated by faculty research sponsor (A2,3,B2)

7 Department of Human Health and Nutritional Sciences Statements

7.1 Academic Advisors

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

- Make an appointment with a program counsellor in your degree program. B.Sc. Academic Advising or Program Counsellors

7.2 Academic Support

If you are struggling to succeed academically:
• Learning Commons: 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. http://www.learningcommons.uoguelph.ca/

• Science Commons: Located in the library, the Science Commons provides support for physics, mathematic/statistics, and chemistry. Details on their hours of operations can be found at: http://www.lib.uoguelph.ca/get-assistance/studying/chemistry-physics-help and http://www.lib.uoguelph.ca/get-assistance/studying/math-stats-help

7.3 Wellness

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. https://www.uoguelph.ca/counselling/

• Student Health Services is located on campus and is available to provide medical attention. https://www.uoguelph.ca/studenthealthservices/clinic

• 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. http://www.uoguelph.ca/~ksomers/

8 University Statements

8.1 Email Communication

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

8.2 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. The regulations and procedures for Academic Consideration are detailed in the Undergraduate Calendar.

8.3 Drop Date

Courses that are one semester long must be dropped by the end of the fortieth class day; two-semester courses must be dropped by the last day of the add period in the second semester. The regulations and procedures for Dropping Courses are available in the Undergraduate Calendar.

8.4 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.

8.5 Accessibility
The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance, and not later than the 40th Class Day.

More information: www.uoguelph.ca/sas

8.6 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.

8.7 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.

8.8 Resources

The Academic Calendars are the source of information about the University of Guelph’s procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.