1 Course Details

1.1 Calendar Description

This course provides an opportunity for those students potentially interested in postgraduate studies to work with a committed faculty advisor to research a problem and design experiment(s) that address a solution. Evaluation of the course requires a substantive literature review and to write a research proposal. Selection of a faculty supervisor and approval from course coordinator must be obtained before course selection.

Pre-Requisites: 14.00 credits
Restrictions: Restricted to students in BSC.ABIO and BSAG.ANSC.
Instructor consent required.

1.2 Course Description

This course provides an opportunity for students to become more actively involved in a specific research topic in a discipline of their choosing. The student will work closely with an individual faculty advisor and be part of their research team working on a project of mutual interest. This course allows the student to review current literature and analyze lab data and/or design new protocols to further research development and knowledge in their chosen research area. The student/faculty advisor may also wish to pursue more in-depth studies through the continuation of their project in ANSC*4710, Research in Animal Biology II in the following semester.

1.3 Timetable

There will be a class meeting at the beginning of the semester (date and time will be announced on CourseLink). Students work closely with their research project advisor to determine a schedule for their regular one on one weekly meeting.

COVID-19 Disclaimer: please be aware that the information on course delivery, accessibility
and examinations presented in this outline were developed based on current University guidelines. However, due to the continuously evolving situation and resulting changes in public health recommendations, the format and delivery of this course may be revised with limited notice.

### 1.4 Final Exam

No final exam in this course.

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## 2 Instructional Support

### 2.1 Instructional Support Team

- **Instructor:** Julang Li  
  - Email: jli@uoguelph.ca  
  - Telephone: 519-824-4120 ext. 52713  
  - Office: Online  
  - Office Hours: Thursdays 1:30-3:30pm by appointment

### 2.2 Teaching Assistants

- **Teaching Assistant (GTA):** Lauren Fletcher  
  - Email: lfletc03@uoguelph.ca  
  - Office: ANNU 103  
  - Office Hours: On-line or in-person by appointment

### 2.3 Communicating with your advisor, course coordinator, TA

**Communicating with your advisor, coordinator, TA:**

*Announcements:* The instructor and TA will use Announcements on the Course Home page to provide you with course reminders and updates. Please check this section frequently for course updates from your instructor.
**Email:** If you have a conflict that prevents you from completing course requirements, or have a question concerning a personal matter, you can send your advisor or course coordinator or TA a private message by email. The instructor will attempt to respond to your email within 24 hours.

**Video Call:** If you have a complex question you would like to discuss with your advisor, coordinator, or TA, you may book a video meeting with them. Video meetings depend on availability and are booked on a first come first served basis.

### 3 Learning Resources

#### 3.1 Course Technologies and Technical Support

**System and Software Requirements**

This course will use a variety of technologies including;

**Courselink**

Courselink System Requirements

You are responsible for ensuring that your computer system meets the necessary system requirements. Use the browser check tool to ensure your browser settings are compatible and up to date. (Results will be displayed in a new browser window).

http://spaces.uoguelph.ca/ed/system-requirements/
https://courselink.uoguelph.ca/d2l/systemCheck

This course is being offered using CourseLink (powered by D2L's Brightspace), the University
of Guelph’s online learning management system (LMS). By using this service, you agree to comply with the University of Guelph’s Access and Privacy Guidelines. Please visit the D2L website to review the Brightspace privacy statement and Brightspace Learning Environment web accessibility standards.


**Technical Support**

If you need any assistance with the software tools or the CourseLink website, contact CourseLink Support.

Email: courselink@uoguelph.ca

Tel: 519-824-4120 ext. 56939 Toll-Free (CAN/USA): 1-866-275-1478

Support Hours (Eastern Time):

- Monday thru Friday: 8:30 am–8:30 pm
- Saturday: 10:00 am–4:00 pm
- Sunday: 12:00 pm–6:00 pm

**Zoom**

This course will use Zoom for meetings. Check your system requirements to ensure you will be able to participate.
3.1 Technical Skills

As part of your learning experience, you are expected to use a variety of technologies for assignments, lectures, teamwork, and meetings. In order to be successful in this course you will need to have the following technical skills:

- Manage files and folders on your computer (e.g., save, name, copy, backup, rename, delete, and check properties);
- Install software, security, and virus protection;
- Use office applications (e.g., Word, PowerPoint, Excel, or similar) to create documents;
- Be comfortable uploading and downloading saved files;
- Communicate using email (e.g., create, receive, reply, print, send, download, and open attachments);
- Navigate the CourseLink learning environment and use the essential tools, such as Dropbox, Quizzes, Discussions, and Grades (the instructions for this are given in your course);
- Access, navigate, and search the Internet using a web browser (e.g., Firefox, Internet Explorer); and
- Perform online research using various search engines (e.g., Google) and library databases.

Contact your course coordinator, TA or advisor if you need support with any of the above.
3.1 Submissions

- Assignments should be submitted electronically, location of submission dependent on assignment type.

4 Learning Outcomes

At the completion of this course, the student will have had the unique opportunity to explore an individual research project and achieve the following learning outcomes.

4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. Develop an understanding of the literature in a specific field of interest

2. Critically assessed the primary literature in the research area

3. Further develop written communication skills

4. Further develop oral and visual presentation skills

5. Develop an awareness of research and the scientific method

5 Teaching and Learning Activities

This course is very unique in that the content depends upon the area of research chosen by the student in conjunction with the research advisor. During the course of the semester, the student will explore the literature in their chosen area of research and in conjunction with the research advisor, develop a research proposal for a real or hypothetical research project. If
the student plans to continue on to ANSC-4710, the research proposal should present a research project that can be accomplished in a single semester.

To complete the course requirements, students will write a literature review and research proposal and present a poster at the end of the semester. At the research advisor’s discretion, the student may combine the literature review and research proposal in a single paper.

5.1 Lab

Topics: Labs
Not Applicable

5.2 Literature Review 25%

The literature review should present a critical review of the literature in the chosen research area.

Requirements: Approximately 10 -15 pages double-spaced, margins 1-inch all around, 12-pt Times New Roman font. Page limits do not include your reference list. The report should be written in a format of a journal paper of the advisors choosing. Discuss the format and contents of the review with your advisor as they will be grading the review.

5.3 Research Proposal 25%

The research proposal should briefly state current issue (you may want to use the relevant key point in your literature review as a basis for the introduction), outline the hypothesis and objectives of your research and the experimental design of your project. You should include expected results as well as significance of the proposed research. Potential pitfalls and alternatives may also be discussed.

Requirements: Approximately 10 pages double-spaced, margins 1-inch all around, 12-pt Times New Roman font. Page limits do not include your reference list. The report should be written in a format of a journal paper of the advisors choosing. Discuss the format and contents of the review with your advisor as they will be grading the review.
5.4 Poster Presentation 25%

Student poster presentation

A scientific poster presented in person to the Department of Animal Biosciences, graded by the Course Coordinator, TA and/or other faculty.

5.5 Participation in Poster Presentation Discussion 5%

Completion of 6 evaluations of poster presentations – see ANSC-4700 Poster Outline.

5.6 Semester Performance (assessed by the supervisor) 20%

The student should discuss the specific criteria for this assessment with the supervisor at the beginning of the semester, to make sure the expectation is clear.

The assessment is based on the criteria set between the supervisor and the student at the beginning of the semester. This could include but is not limited to: initiative taking, preparation for weekly meetings, effectiveness on time management, response to feedbacks.

6 Assessments

6.1 Marking Schemes & Distributions

<table>
<thead>
<tr>
<th>Name</th>
<th>Scheme A (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature Review</td>
<td>25</td>
</tr>
<tr>
<td>Name</td>
<td>Scheme A (%)</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Research Proposal</td>
<td>25</td>
</tr>
<tr>
<td>Poster Presentation</td>
<td>25</td>
</tr>
<tr>
<td>Peer Evaluation of Posters</td>
<td>5</td>
</tr>
<tr>
<td>Semester performance</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### 6.2 Assessment Details

**Literature Review (25%)**
- **Learning Outcome**: 1, 2, 3, 5
  - A paper that is graded by the research advisor

**Research Proposal (25%)**
- **Learning Outcome**: 3, 5
  - A paper that is graded by the research advisor

**Poster Presentation (25%)**
- **Learning Outcome**: 3, 4, 5
  - A scientific poster presented and graded by the Course Coordinator, TA and other faculty.

Please see ANSC*4700 Poster Outline for instructions.

**Peer Evaluation of Posters (5%)**
- **Learning Outcome**: 3, 4, 5
  - Completion of six in-person evaluations of poster presentations – see ANSC-4700 Poster Outline. Graded by course coordinator and TA.

**Semester performance (20%)**
- **Learning Outcome**: 1, 2, 3, 4, 5
  - Graded by the research advisor.

### 6.3 Final Report Due Date and poster presentation (see deadline list)

The due date for the advisor to submit the grade is usually ~1-1.5 weeks after the last day of class. According to this date, the advisor and student could mutually agree upon the due date for the final report to ensure that the research advisor has enough time to evaluate your
assignment and can submit the grade in time.

*Final date to be posted once details arrive from the Register’s Office.

**Date for student poster presentation:** see "Important Dates & Deadlines" list on CourseLink.

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**7 Course Statements**

**7.1 Late Policy**

- If you choose to submit assignments to the Dropbox tool late, the full allocated mark will be reduced by 5% per day after the deadline for the submission of the assignment to a limit of six days at which time access to the Dropbox folder will be closed. Late Graded Homework Assignments will NOT be graded if they are submitted after the solutions have been posted to CourseLink.
- Extensions will be considered for medical reasons or other extenuating circumstances. If you require an extension, discuss this with the instructor as soon as possible and well before the due date. Barring exceptional circumstances, extensions will not be granted once the due date has passed. These rules are not designed to be arbitrary, nor are they inflexible. They are designed to keep you organized, to ensure that all students have the same amount of time to work on assignments, and to help to return marked materials to you in the shortest possible time.

**7.2 Grades and Feedback**

- Unofficial assessment marks will be available in the Grades tool of the course website.
- Your instructor/TA will attempt to have grades posted online within 2 weeks of the submission deadline, if the assignment was submitted on time. Once your assignments are marked you can view your grades on the course website by selecting Grades from the Tools dropdown menu on the navbar. Your course will remain open to you for seven days following the last day of the final exam period.
- University of Guelph students can access their final grade by logging into WebAdvisor (using your U of G central ID).
7.3 Grading Policies and Missed or Late Final Papers

Grading Policies and Missed or Late Final Papers

The report deadline is defined by mutual agreement between the research advisor and student. The research advisor and the student can mutually agree to modify the deadline if needed. If the grade is not provided in time to meet the Registrar's Grade deadline (see above), the grade will need to be resolved through the incomplete grade system in the Registrar's Office. Therefore, every effort should be made to complete the course requirements before the final grade deadline.

7.4 Grading Policies and Missed or Late Poster Presentation

The poster presentation is scheduled by the Course Coordinator to coincide with the end of classes or early during the exam schedule at a mutually agreeable time. Students with a valid academic conflict can make other arrangements with the Course Coordinator to present the poster at a different time. If a student misses their scheduled presentation time and has not contacted the Course Coordinator, the University's requirements for documentation of academic consideration come into play (see below).

7.5 Netiquette Expectations

The course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply. Inappropriate behaviour will not be tolerated. Examples of inappropriate online behaviour include:

- Posting inflammatory messages about your instructor or fellow students;
- Using offensive language;
- Copying or presenting someone else's work as your own;
- Adapting information from the Internet without using proper citations or references;
- Buying or selling term papers or assignments;
- Posting or selling course materials to course notes websites;
- Having someone else complete your quiz or completing a quiz for/with another student;
- Stating false claims about lost quiz answers or other assignment submissions;
- Threatening or harassing a student or instructor;
- Discriminating against fellow students, instructors, and/or TAs;
- Using the course website to promote profit-driven products or services;
• Attempting to compromise the security or functionality of the learning management system; and
• Sharing your username and password.

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 grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals
https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml

Graduate Calendar - Grounds for Academic Consideration
https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions
https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml

8.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses
https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml

Graduate Calendar - Registration Changes
https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml

Associate Diploma Calendar - Dropping Courses
https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml
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 make a booking at least 14 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time.

For Guelph students, information can be found on the SAS website https://www.uoguelph.ca/sas

For Ridgetown students, information can be found on the Ridgetown SAS website https://www.ridgetownc.com/services/accessibilityservices.cfm

8.6 Academic Integrity

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 encourages academic integrity. 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.

Undergraduate Calendar - Academic Misconduct
https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml
8.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, 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 that apply to undergraduate, graduate, and diploma programs.

Academic Calendars
https://www.uoguelph.ca/academics/calendars

8.9 Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (https://news.uoguelph.ca/2019-novel-coronavirus-information/) and circulated by email.

8.10 Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

8.11 Covid-19 Safety Protocols

For information on current safety protocols, follow these links:

- https://news.uoguelph.ca/return-to-campuses/how-u-of-g-is-preparing-for-your-safe-return/
- https://news.uoguelph.ca/return-to-campuses/spaces/#ClassroomSpaces

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.