

# **Course Outline: ANSC-4700 Research in Animal Biology I**

## **General Information**

**Course Title: ANSC-4700 Research in Animal Biology I**

### **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.

**Credit Weight: 0.5**

**Academic Department (or campus): Department of Animal Biosciences**

**Campus: Guelph**

**Semester Offering: Fall, Winter, Spring**

### **Class Schedule and Location:**

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.

## **Course Coordinator Information**

Course Coordinator Name:	Julang Li
Course Coordinator Email:	jli@uoguelph.ca
Office Location:	ANNU 248
Office hours:	Thursday 9:30am to 11:00 am

## **GTA Information**

GTA Name: sudhanshu sudan (Sid )

GTA Email: [ssudan1508@gmail.com](mailto:ssudan1508@gmail.com)

GTA office location and office hours: Rm.133, ANNU building; by appointment

## **Course Content**

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 and take ANSC-4710, the research proposal should present a research project that can be accomplished in a single semester. It is possible to enroll in both ANSC-4700 and ANSC-4710 in a single semester. In that situation, you will review the literature, propose a project, conduct the research, and analyze the results.

To complete the course requirements for ANSC-4700, 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.

## **Specific 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:

- Develop an understanding of the literature in a specific field of interest
- Critically assessed the primary literature in the research area
- Further develop written communication skills
- Further develop oral and visual presentation skills
- Develop an awareness of research and the scientific method

## **Course Assignments and Tests**

<b>Component</b>	<b>Information</b>	<b>Weighting in Final Grade</b>
Literature Review	A paper that is graded by the research advisor	25%
Research Proposal	A paper that is graded by the research advisor	25%
Poster Presentation	A scientific poster presented to the Department of Animal Biosciences at the end of classes and graded by the Course Coordinator, TA and other faculty	25%
Semester Performance	Graded by the research advisor	25%

### **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.

### **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.

The student should discuss the specific criteria for this assessment with the supervisor at the beginning of the semester. This should include but is not limited to: preparation for meetings, interaction with others in the laboratory, organization of time, development of technical competence, research performance, and quality of laboratory notes, data organizing.

### **Poster Presentation- 25%**

Please see ANSC-4700 Poster Outline for instructions.

### **Student Performance (accessed by supervisor) - 25%**

The student should discuss the specific criteria for this assessment with the supervisor at the beginning of the semester. This should include but is not limited to: preparation for meetings, interaction with others in the laboratory, organization of time, development of technical competence, research performance, and quality of laboratory notes, data organizing.

### **Final Report Due Date:**

The student and the research advisor should mutually agree upon the due date for the final report to ensure that the research advisor can submit the grade in time.

The due day for the advisor to submit the grade is **tentatively early to mid December, 2018**  
**\*Final date to be posted once details arrive from the Registrar's Office.**

Date for student poster presentation: 1-5 pm, **December 4, 5, 2018**

## **Course Policies**

### **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.

### **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).

## **University Policies**

### **Academic Consideration:**

The University of Guelph is committed to supporting students in their learning experiences and responding to their individual needs and is aware that a variety of situations or events beyond the student's control may affect academic performance. Support is provided to accommodate academic needs in the face of personal difficulties or unforeseen events in the form of Academic Consideration.

Information on regulations and procedures for Academic Consideration, Appeals and Petitions, including categories, grounds, timelines and appeals can be found in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).

### **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.

Detailed information regarding the Academic Misconduct policy is available in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).

### **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 Student Accessibility Services (SAS), formerly Centre for Students with Disabilities (CSD), as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email [sas@uoguelph.ca](mailto:sas@uoguelph.ca) or visit the [Student Accessibility Services website \(http://www.uoguelph.ca/csd/\)](http://www.uoguelph.ca/csd/).

### **Course Evaluation Information:**

End of semester course and instructor evaluations provide students the opportunity to have their comments and opinions used as an important component in the Faculty Tenure and Promotion process, and as valuable feedback to help instructors enhance the quality of their teaching effectiveness and course delivery.

While many course evaluations are conducted in class others are now conducted online. Please refer to the [Course and Instructor Evaluation Website](#) for more information.

### **Drop period:**

The drop period for single semester courses starts at the beginning of the add period and extends to the Fortieth (40th) class day of the current semester (the last date to drop a single semester courses without academic penalty) which is listed in [Section III \(Schedule of Dates\) of the Undergraduate Calendar](#).

The drop period for two semester courses starts at the beginning of the add period in the first semester and extends to the last day of the add period in the second semester.

Information about Dropping Courses can be found in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).

Additional Course Information

N/A.

## **ANSC 4700/4710 Faculty and Student Expectations**

Thank you for consider taking the ANSC4700/4710 course or supervising a student from the one of these courses. Below are some of the expectations for your information.

### **FOR SUPERVISORS**

1. Read the course outline.
2. In the initial meetings with your student, please discuss your expectations of the student and be sure to clearly identify the criteria you will use in assessing the student's performance (e.g. the supervisor's assessment component (25%) of the student's final grade).
3. Establish a regular meeting schedule with the student to discuss progress, assign tasks and milestones.
4. Try to monitor the time that your student is spending on the course. The expectation is that these 0.5 credit courses should involve at least 8 -10 hrs of student effort per week, double if the student is taking both 4700 and 4710 in the same semester.
5. Supervisors are expected to attend the student poster presentation and to help evaluate two posters (from other lab) per student supervised in the time block selected.
6. If you have to be away from campus for a significant period of time, please arrange for the supervision of your student in your absence.
7. Provide specific comments when your student asks you to review the preliminary draft of their final report.
8. Set the final report due date with your student to allow you sufficient time to evaluate the final report from your student. Submit your mark out of 100% to [jli@uoguelph.ca](mailto:jli@uoguelph.ca) and [cosakowi@uoguelph.ca](mailto:cosakowi@uoguelph.ca)
9. Submit one mark out of 100% for your student's overall performance to [jli@uoguelph.ca](mailto:jli@uoguelph.ca) and [cosakowi@uoguelph.ca](mailto:cosakowi@uoguelph.ca), based on the criteria that you discussed at the beginning of the course with your student. This will account for 25% of the student's final mark.
10. For ANSC\*4710: ensure that your student receives and completes the specific safety training and animal training required for conducting the proposed research/study, and provide a safe environment for the student to conduct research in. At the end of the document is some

information/instruction on general training, you may need to request for specific additional training for your research.

### **FOR STUDENTS**

1. Read the course outline and poster outline, follow instructions posted on Courselink.
2. When the semester begins, you are responsible for contacting your supervisor and proceeding according to his/her directions.
3. Together with your supervisor, establish a topic of research and milestones of your research project.
4. Criteria for the supervisor's assessment (the 25% component of the final grade) should be discussed and agreed upon at the first meeting with your supervisor.
5. Arrange a time weekly or biweekly that works mutually to meet with your supervisor to discuss your progress and direction for next steps.
6. Participate in research/scientific experimentation in a specific area of focus (ANSC\*4710).
7. A preliminary draft of your report should be submitted to your supervisor for general comments and feedback before the final copy is submitted. Allow sufficient time for this to occur.
8. The final report is due to your supervisor on the specified day that is set between you and your supervisor to allow your supervisor enough time to evaluate your report and submit the mark to the course coordinator.
9. Send poster draft to your supervisor for feedback, practice if needed
10. All final poster presentations will be uploaded to your Dropbox on Courselink. The deadline to submit your poster, for uploading, is one day before your presentation date.
11. You are expected to participate in your peer's presentations and interact with the presenters via discussion.
12. Your time commitments to the course is expected to be at least 8 -10 hrs per week, double if taking both 4700 and 4710 at the same semester.
13. For ANSC\*4710: discuss with your supervisor regarding safety and animal handling training, and make sure that you complete the safety training before you begin your experiments.

Student Name: \_\_\_\_\_

Faculty Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Course (check the appropriate one(s) :        ANSC4700                    ANSC4710

Semester (check the appropriate one(s) :    Fall                            Winter                    Summer

### **ANSC\*4710 Reference for General Safety Training and Animal Training**

Online Training:

1. WHMIS 2015- Online
2. Laboratory Safety-Online
3. EHS Worker Health and Safety Awareness- Online
4. EHS Biosafety (Investigative Staff/Lab Worker)- Online

Steps to Register for Online Training:

1. Go to the Guelph EHS Homepage (<https://www.uoguelph.ca/hr/hr-services/welcome-environmental-health-safety>)
2. On the far right, select the "EHS TRAINING" tab.
3. Select "COURSE REGISTRATION"
4. Click "REGISTER FOR EHS COURSES" underlined in blue on the new page it opens up to.
5. On the new page, look under the "Current" event tab.
6. Click "WHMIS 2015-Online". \*You have to click and register for each course one by one this way.
7. Follow the online directions to register for the online course so that it appears on your Courselink.
8. Once it appears on Courselink, complete the online modules and you may have quizzes to complete in order to pass the training. It is highly important that you download the completion certificates of the courses you finish.

For any work involving the use of animals, specific online and hands-on training is required. Below are a few general training courses that may be required. For other animal training courses not listed, follow the same instructions for registering, but search through the “Activities” list for your desired animal training course as specified by your advisor.

Animal Training:

1. Core Module for Animal User Training (online)
2. CAF Orientation Training
3. Isolation Orientation Training (for students working pathogen animal challenging experiments)

Steps for Registering for Animal Training:

1. Go to [https://ca.apm.activecommunities.com/uofgconnect/Home?online\\_site\\_id=5](https://ca.apm.activecommunities.com/uofgconnect/Home?online_site_id=5) and log-in.
2. Once you login there should be a "My Account" tab under "Register for Animal User Training". Click the "My Account" tab.
3. Under "Online Services", click "Register for Activities".
4. Under the NAME column will be the list of courses available along with dates/times they will be offered. Click "Add to Cart" button to add the ones you require.
5. Once finished adding all courses, go to My Cart and "Check Out/Register" for the courses.
6. Courses with online reading will appear on your Courselink.

In addition, for ANSC4710, the following are also needed:

- Volunteer Waiver form
- Return the form to Diana. I
- ABSC safety training form (attached) - contains the link to the training modules. In order to complete the training, they need an active UoG email account. If they do not have one, please let me know and I will request one for them. In such cases, they need to complete the Information Required for Visitors form (attached).
- Forward the ABSC form to Wendy for keys, and the training certificates to Julie Kim ( [jungmi@uoguelph.ca](mailto:jungmi@uoguelph.ca) )