

# Course Outline for Fall Semester 2017

**Course Title:** ANSC6440 Advanced Critical Analysis in Applied Ethology

## **Course Description:**

This course is designed for graduate students interested in deepening their understanding of the mechanisms of animal behaviour, broadening their knowledge of the scientific literature and developing the skills necessary to critically analyze and conduct research in applied ethology. Students will explore the process of scientific inquiry and experimental design within the context of applied ethology research. Discussions include the peer review process and applications of methods for applied animal behaviour research. It is helpful if students have already completed a general course in animal behaviour.

**Credit Weight:** 0.5

**Department:** Animal Biosciences

**Schedule and Location:** Fridays 11:30-3:00 (MACS 301)

**Instructor**     Renée Bergeron\*  
                         250 ANNU, ext. 53706  
                         [rbergero@uoguelph.ca](mailto:rbergero@uoguelph.ca)

\*Instructor is replacing Tina Widowski while she is away on research and study leave

## **Course Objectives:**

- To provide opportunities for in-depth analysis and discussion of classic papers and current topics in applied ethology
- To explore experimental design and data collection methods used in behaviour research
- To provide experience presenting and reviewing research articles
- To develop skills in critical evaluation of research in applied ethology

## **Learning Outcomes:**

By the end of this semester you:

1. will develop an appreciation for the breadth and depth of approaches used in applied ethology research by studying a variety of assigned and self-selected readings
2. will be able to articulate the research question(s) and hypotheses of a published experimental study and determine whether the methods used in the study are sound and sufficient for testing the hypotheses
3. will search scientific literature about a specific behaviour "system", integrate the current knowledge to develop a model for the system and identify gaps in our understanding of it

4. will develop your own specific research question(s) and be able to design an experiment to answer that question
5. will review and critically evaluate a journal article in the format of a real “peer review”
6. will become familiar and comfortable with orally presenting your ideas to a group of peers and writing a well-crafted literature review for your instructor

#### Assignments & Evaluation:

| Assignment   | Due Date             | Contribution to Final Mark (%) | Learning Outcomes Assessed |
|--|----------------------|--------------------------------|----------------------------|
| <b>1. Asking questions about animal behaviour</b>    |                      |                                | 1, 2                       |
| Oral Presentation                                    | TBD                  | 5                              | 6                          |
| Written  | Oct 20 <sup>th</sup> | 10                             |                            |
| <b>2. Answering questions about animal behaviour</b> |                      |                                | 1, 2                       |
| Oral Presentation                                    | TBD                  | 5                              | 6                          |
| Written  | Nov 10 <sup>th</sup> | 15                             |                            |
| <b>3. Peer Review of Journal Article</b>             | Nov 17 <sup>th</sup> | 15                             | 5                          |
| <b>4. Modelling a behavior system</b>                |                      |                                | 3,4                        |
| Oral Presentation                                    | TBD                  | 10                             | 6                          |
| Written  | Dec 8 <sup>th</sup>  | 30                             | 6                          |
| <b>5. Participation in Discussion</b>                | NA                   | 10                             | 6                          |

- Assignment 1 (15-minute individual presentation) + written summary (5+10=15%)  
"Asking questions about behaviour"
- Assignment 2 (15-minute group presentation) + written summary (5+15=20%)
- Assignment 3 (manuscript review) (15%)
- Assignment 4 (20 min individual presentation + paper) (10+30=40%)  
"Modeling a behavioural system"
- Overall participation (10%) - Asking speakers questions and contributions to discussion

#### Resources and Readings for the Course:

Course readings will be posted or linked on Courselink

You will be expected to use scientific data bases (e.g. Google Scholar, PubMed, Web of Knowledge etc.) to conduct your own literature reviews. Make sure that you use only peer-reviewed journal articles for your written assignments.

#### Supplemental Readings:

Martin, P. and Bateson, P. (2007) *Measuring Behaviour and Introduction* 3<sup>rd</sup> Edition. Cambridge University Press.

Lehner, P. (1996) *Handbook of Ethological Methods*

## **Course Policies**

### **Grading policies:**

Detailed marking schemes and/or rubrics will be posted in Courselink in advance of all assignment due dates. Please refer to them when preparing your assignments.

If I find that you had difficulty in meeting the learning outcomes for written Assignments 1 and 2 (i.e. poor mark), I will provide feedback and give you the opportunity to redo the assignment.

This course meets only once per week and therefore it is advised that you attend all classes. If you are unable to attend a class because of a conflict, please notify me in writing.

## **University Policies**

### **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.

### **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 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/genreg/sec\\_d0e2386.shtml](https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e2386.shtml)

### **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: [https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec\\_d0e2700.shtml](https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e2700.shtml)

### **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.

**Resources:**

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

<http://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 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/).

The standard statements are available on the [AVPA website](#) (undergraduate courses) or from the Office of Graduate Studies (Graduate Courses).

**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 Graduate Calendar](#).

## ANSC 6440 Advanced Critical Analysis in Applied Ethology

| Date/Room  | Topic   |
|--|---|
| September 8 <sup>th</sup>                                      | Introduction and course organization<br><i>Why do we study animal behaviour?</i>  |
| September 15 <sup>th</sup>                                     | "Asking questions about behaviour"<br>- Lecture: <i>Questions, objectives and hypotheses</i><br>- In-class exercise - Assignment 1    |
| September 29 <sup>th</sup>                                     | "Asking questions about behaviour"<br>- Student presentations and discussion  |
| October 6 <sup>th</sup>  | "Asking questions about behaviour"<br>- Student presentations and discussion  |
| October 13 <sup>th</sup>                                       | "Asking questions about behaviour"<br>- Student presentations and discussion  |
| October 20 <sup>th</sup>                                       | Answering questions about behaviour"<br>- Lecture: <i>Experimental design and data collection</i><br>In-class exercise - Assignment 2 |
| October 27 <sup>th</sup>                                       | " Answering questions about behaviour"<br>- Student presentations and discussion  |
| November 3 <sup>rd</sup>                                       | " Answering questions about behaviour"<br>- Student presentations and discussion  |
| November 10 <sup>th</sup>                                      | "The peer review process"<br>- Lecture: <i>Peer review of manuscripts for publication</i><br>Assignment 3                             |
| November 17 <sup>th</sup>                                      | "Conceptual models to explain behaviour"<br>- Lecture and discussion of assigned readings<br>- Assignment 4                           |
| November 24 <sup>th</sup>                                      | "Modeling a behavioural system"<br>- Student presentations and discussion   |
| <b>November 29<sup>th</sup><br/>(Wed)<br/>9:00 am Room TBD</b> | "Modeling a behavioural system"<br>- Student presentations and discussion   |
| <b>December 1<sup>st</sup> (FRI)<br/>11:30 am Room TBD</b>     | "Modeling a behavioural system"<br>- Student presentations and discussion   |