

BIOL 321

Animal Behaviour

Fall Term (2017)

CALENDAR DESCRIPTION

An evolutionary approach to the study of animal behaviour. This course explores patterns and process in behaviour, with emphasis on perception, communication, foraging, spacing, reproduction and social behaviour in a variety of animals. An independent project helps students explore methods of studying and analyzing behaviour in a system of their choice.

RECOMMENDATION BIOL 202/3.0. COREQUISITE 6.0 UNITS in BIOL at the 200-level or above.

SCHEDULE

Lectures: Mon 4:30-5:20pm, Wed 3:30-4:20pm, Fri 2:30-3:20pm; Walter Light Auditorium

Tutorials: 1.5 hours; Tues 2:30 and 4:00pm; Thurs 10:00am, 2:30pm, and 4:00pm; Fri 8:30 and 10:00am; Biosci1341

Instructor	Dr. Fran Bonier
Instructor Contact	bonierf@queensu.ca; Phone: 613-533-6000 ext. 77024; BIOSC 3523
Office Hours	TBA
TA Information	See BIOL 321 OnQ site

Learning Objectives

Biology 321 provides a detailed overview of the fascinating study of animal behaviour from an evolutionary perspective. The central goal is to help students understand how genetic, hormonal, and neural mechanisms influence behavioural variation, and to demonstrate how researchers use evolutionary theory to test hypotheses about the selective pressures that shape the way animals behave. Students will be introduced to exciting research in ecology, psychology, physiology, genetics, applied conservation, and animal welfare.

Tutorial discussions of current primary literature are designed to help improve students' critical thinking and communication. Students will also develop research skills by carrying out an independent project, including hypothesis development, study design, data collection and analysis, and presentation of results.

Learning Hours

<i>Teaching method</i>		<i>Average hours per week</i>	<i>Number of weeks</i>	<i>Total hours</i>
In-class hours	Lecture	3	12	36
	Seminar			
	Laboratory			
	Tutorial	1.5	10	15
	Practicum			
	Group learning			
	Individual instruction			
Other	Online activity	1.5	8	12
	Off-campus activity	2	12	24
	Private study	3	12	36
Total hours on task				123

Course Outline

Main Topics

- Studying animal behaviour: hypotheses, approaches and ethical considerations
- Selection and behavioural adaptation
- Behavioural variation: the roles of genes and environment
- Behavioural variation: hormones and neurons
- Learning and cultural transmission
- Communication
- Foraging and anti-predator behaviour
- Aggression
- Sexual selection and mating behaviour
- Social behaviour: kinship and co-operation
- Animal personalities

Textbooks/Readings

Required Text: Principles of Animal Behavior 3rd Edition, 2013. W.W. Norton & Company, Inc.

See 321 OnQ site for Reserve material, other readings.

Grading Scheme

Weighting and timeline for all assignments TBA

Component	Weight (%)	Date
Tutorial Assignments		
Independent project		
Lecture and Reading Quizzes, Discussion Questions		

Grading Method

All components of this course will receive numerical percentage marks. The final grade you receive for the course will be derived by converting your numerical course average to a letter grade according to Queen's Official Grade Conversion Scale.

Grade	Numerical Course Average (Range)
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59
D	53-56
D-	50-52
F	49 and below

Academic Integrity and Queen's Code of Conduct

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments and conduct conform to the principles of academic integrity. Information is available in the Arts and Science Calendar (see Academic Regulation 1 - <http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations>, on the Arts and Science website (see <http://www.queensu.ca/artsci/academics/undergraduate/academic-integrity>), on the Biology Department website (<http://biology.queensu.ca/academics/undergraduate/prepare-yourself/>), and from the instructor of this course. Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions that contravene the regulations on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

Accommodation Policy, Exam Conflicts, and Other Conflicts

Students who feel they need accommodations for disabilities or extenuating circumstances should consult the University Student Accessibility Services (<http://www.queensu.ca/studentwellness/accessibility-services>). Students with a conflict between exams, lectures, or other course requirements should consult the Biology Department's website for details about how to proceed

(<http://biology.queensu.ca/academics/undergraduate/prepare-yourself/>). In general, the earlier the instructor is apprised of an extenuating circumstance, the more likely an accommodation can be made. Students are encouraged to be proactive in anticipating difficulties, when it is possible to do so.

Students may apply to write a make-up or deferred exam if they have an exam conflict as defined in the Academic Regulations of the Faculty (See Arts and Science Calendar Regulation 8 - <http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations>). In this case, the student should report to the Exams Office first to verify that there is a genuine exam conflict. Biology professors will not consider your situation to be a conflict unless it meets the criteria set out by the Faculty of Arts and Sciences.

Students may request a make-up or deferred exam if they have an exam conflict with off-campus travel associated with a field course (e.g BIOL-307/3.0 or 407/3.0) that is held during the fall or winter terms.

Make-up quizzes will not be offered, but students who have made **PRIOR arrangements** with the instructor might be permitted to have quizzes pro-rated if they are missed due to illness, family emergencies, or other extenuating circumstances, dependent on approval by the instructor.

Assignments must be submitted by the posted deadlines, barring any prior arrangements approved by the instructor due to extenuating circumstances. Assignment marks will be reduced by 5% for each day late up to 3 days, then 10% per day up to 7 days. Assignments will be assigned a mark of 0 if they are submitted more than 7 days after the posted deadline.

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Accommodation of Disabilities

Queen's University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability and think you may need accommodations, you are strongly encouraged to contact the Queen's Student Accessibility Services (QSAS) and register as early as possible. For more information, including important deadlines, please visit the QSAS website at: <http://www.queensu.ca/studentwellness/accessibility-services/how-register/current-returning-students>