

**Behavioural Ecology and Scientific Writing
(PNB 728 and BIO 316)**

Time: Thurs 17:30–20:20 (to be confirmed)
January 12 – April 7 2012

Location: Psychology Dept Room 311 (to be confirmed)

Instructor: Drs. Sigal Balshine and Jim Quinn

Contact Info: Office – PC 304, Ext – 23024

Office – LSB 435, Ext – 23194

Emails – sigal@mcmaster.ca, quinn@mcmaster.ca

Course description and objectives: Dr. Sigal Balshine (from PNB) and Dr. Jim Quinn (from Biology) will co-teach a graduate level course in behavioural ecology and scientific writing. In this course, students will have an opportunity to learn how to write a grant proposal, apply for funding for research or conference funding. Students will also have a chance to design, conduct and collaborate on a scientific review as well as improve their scientific writing and presentation techniques. The course is open to any graduate student in Biology or Psychology, Neuroscience & Behaviour. While in depth knowledge of behavioural ecology is not essential an appreciation and strong interest in animal behaviour is.

Course organization: The first organizational meeting will be on Thursday Jan 12th at 17:30 in the Psych Building, Room 311. We will decide what time we would like to meet, and also what topic we would like to concentrate a group review on. The rest of the term will be divided into two 6-week segments (one before and one after reading week). During the first 6-week segment, we will meet as a class and discuss possible topics for our review. To do this we will read seminal papers together much like a journal club.

In the second part of the term, the class will be divided into review working groups of 2-3 students. Each group will work on a different part of the review project for 6 weeks. During this part of the course the students will be expected to do most of their work without direct supervision. The instructors will be available as resource persons and should be consulted on a regular basis during the development, analysis and writing of the review.

Course Schedule:

Dates	Activity	Class Meeting	Assignments due
Jan 8-13	Organizational Meeting Decide of meeting time/place Decide on Review Topic Breakdown of the Review groups	Yes	
Jan 16-20	Finding and Choosing a Grant Writing a Successful Grant Proposal	Yes	Bring to class 3 target grant applications and requirements (not completed)
Jan 23-27	Brainstorming for Success Learning from an Expert Journal Article 1	Yes	Interview from Supervisor due 4 Top Tips for Grant Success
Jan 30- Feb 3	Journal Article 2	Yes	First Draft of Grant Due
Feb 6-10	Feedback Session Learning how to Review Journal Article 3	Yes	
Feb 13-17	Grant Assessment Panel	Yes	Second and Final Draft Grant Due
Feb 20-24	Reading Week	No	
Feb 27- March 3	Review Project How to Write a Review Discussion of Themes and Subheadings for Review	Yes	Form Review Groups
March 6-10	Review Project Jim's Lecture	Yes	Reference List Due
March 13-17	Review Project Sigal's Lecture	Yes	
March 20-24	Review Project	Yes	
March 27-31	Review Presentations	Yes	Presentations of Projects
April 3-7	Review Presentations and Submission of Review	Yes	Written Report of Reviews due

Possible or suggested review topics:

Sex Ratio Allocation, Parental Effects/Epigenetics, Social Networks

Assignments and Evaluation: Final grades will be based on marks from first draft and second draft of the grant proposal, as well as on the group review (both a written and oral presentation components). There will also be a class participation component of the final grade.

Grant Proposal: (20 marks for each draft). Students will be expected to bring in to class three possible grants to apply for. Then together with the instructors, and based on principles discussed in class they will select and complete a grant proposal that could be submitted. This first draft will be worth 20% of the final grade and be marked by the instructors. Based on the feedback provided students will have an opportunity to rework their grant. The entire class will be referees on a grant assessment panel for these second draft grants. Second drafts will also be worth 20% of the final mark and be based on a combination of class ranking and the instructors' adjudication.

Review: (20 marks for the oral presentation and 20 marks for the written review section). Students will choose a review topic as a class and work with other students (groups of 2-3) in the class on different sections of a scientific review over a six week period. Groups will collect literature, summarize and write various sections of the review together. Note that the instructors must approve outlines and the bibliography for each review section before in depth reading, summarization and synthesis begins. At the end of the 6th week, each group will give an oral presentation to the class (worth 20% of the final mark). These oral presentations should communicate the purpose of the review, findings and interpretations. In addition, an oral presentation should engage the viewer's attention without compromising the viewer's understanding when space and time are limited. Group members must participate equally in the presentations. Each group will also be required to submit a written review section based on the papers collected and read (worth 20% of the final mark). The written review sections should introduce the topic of the review, describe summarize the results of as many studies as possible and include a discussion of the results.

Participation: This is a graduate level course and regular constructive comments and questions are expected from all participants. To this end 20% of the marks will be assigned for in class participation.