

WANT TO JOIN THE SNL?



UNDERGRADUATE PROGRAMS OFFERED

So, you are interested in joining the Songbird Neuroethology Lab? Here are our current course offerings, available to curious and driven undergraduates:

Please review our website and the [SNL code of conduct](#) before applying.

TRACK ONE: Research Experience

This course/opportunity is intended to introduce students to working in the lab. You will finish all the necessary training, assist with animal care, complete weekly lab tasks, and attend weekly lab meetings. You will be supervised by the lab manager/PI. The main goal of this time will be to prepare you for potential future work at the lab. In order to apply, email Dr. Christopher Sturdy, say you want to join a 296/299 course or as a volunteer. Include why you are interested in working with us, as well as a copy of your unofficial transcript.

Time commitment: 2-3 hours a week

Requirement(s): Volunteer – a general interest in working with the SNL. 296/299 - see sample syllabi below for prerequisites.

CONTACTS

 [SNL website](#)

 [@SNLab2002](#)

 csturdy@ualberta.ca

**PSYCH 299 OR
VOLUNTEER**

**PSYCH 396/398
PSYCH 496/498**

In this course, students will be expected to continue their 296/299 tasks in addition to being introduced to independent project work. There are two options in this course:

- (1) **Work on an existing project:** During weekly lab meetings, you should be very familiar with the ongoing projects in the lab. Choose one, and your supervisor will be the graduate student or postdoc who is in charge of that project. This option is always guaranteed.

(2) **Propose an independent project:** In order to start an independent project, you will propose an independent project either by giving a proposal presentation during lab meeting or by submitting a 2-page written proposal to the lab. This proposal will need to include: references to background literature, a skeleton method, and the potential research question. A graduate student/post doc will then need to accept the project; they would then become your supervisor. You may be asked to edit your idea or design, or propose a new idea (with feedback from a potential supervisor). This option is not guaranteed.

In order to apply, email Dr. Christopher Sturdy, state which option you would like to proceed with. If option 1, please state the project and supervisor you would like to work with. If option 2, please submit either the written proposal or schedule the lab presentation within 3-4 weeks from the start of the term.

Time commitment: 5-8 hours a week

Requirement(s): Successful completion of training, either from 296/299 or volunteering. See sample syllabi below for other prerequisites.

TRACK TWO: Honors Research

**PSYCHO 390/399
TO 490/499**

This course is structured to help students design and execute an independent research project, in order to complete the requirements of the Honor's program. The first term will be spent reading background literature and constructing a literature review. The second term will be designing the methods of the project and presenting the project at the Royce Conference. The third and final term will be focused on data collection, analysis, and refinement. In addition, these students will be expected to take on other responsibilities around the lab, including getting necessary training, completing animal care, attending lab meetings, etc.

In order to apply, email Dr. Christopher Sturdy with your CV, a short statement of interest, and an unofficial transcript. We will set up an interview with you, where you will be asked assessment questions (provided beforehand).

Time commitment: 8-10 hours a week

Requirement(s): Restricted to, and required of, fourth-year students in the Honors psychology program. See sample syllabi below for other prerequisites.

GENERAL EXPECTATIONS

The SNL has provided unique research experiences and opportunities for U of A undergrads for many years. However, we do expect all students to be: (1) respectful of others and (2) responsible for their own progress, advocating and communicating with their supervisor and the lab frequently and effectively – beginning with your application!

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Sample Syllabi

You can expect your syllabi to be similar to the following -

PSYCH 296/299 - *Research Opportunity Program in Psychology*

★ 1.5 (fi 3) (either term, 0-0-3) A credit/no-credit course for supervised participation in a faculty research project. Normally taken after completion of a minimum of *30 but not more than *60. Prerequisites: GPA of 2.5 or higher, PSYCH 104 or SCI 100 and one other PSYCH course; and consent of the Department. Project and course information available at ROPP website or Department of Psychology. Prospective enrollees in PSYCH 299 must apply to the Department of Psychology. Note: Application does not guarantee an ROPP position. Credit may be obtained twice. [Faculty of Science]

Course requirements and evaluation: The primary objective of this course is to (1) expose and familiarise you with the field of comparative cognition (i.e., theory, data, and methods), and in particular, with an introduction to songbird communication, cognition, and neuroethology, and (2) garner the training necessary to continue at the lab. This will include you becoming exposed to aspects of literature searches, scientific literacy and communication, bioacoustical analyses, data analysis, and animal handling and husbandry. Your final grade (CR) will be based on the following:

100% - Participation in a laboratory/research setting. This component will allow you to demonstrate your ability to learn and communicate new ideas and complete weekly lab tasks/training. This will require a minimum of 2-3 hours per week spent in lab meeting/discussion plus additional time to complete readings.

The final grade will be assigned as follows: **Credit/No-Credit (CR/NC)**

PSYCH 396/399 - *Individual Research*

★ 3 (fi 6) (either term, 3-0-0) A course designed to allow the greater depth than the classroom structure senior undergraduate student the opportunity to pursue a supervised research project in permits. Directed research done under the supervision of an academic member of the Psychology Department. Successful completion of this course requires a formal research proposal or report, lab notes, and/or essay. Normally for students in their third year of study. Cannot be taken more than twice. Prerequisites: a 200-level PSYCH course and consent of the Department. Specific projects may require additional prerequisites. [Faculty of Science]

Course requirements and evaluation:

The primary objective of this course is to expose and familiarise you with the field of comparative cognition (i.e., theory, data, and methods), and in particular, with an introduction to songbird neuroethology. This will include you becoming skilled in all aspects of songbird neuroethology, including operant conditioning, neurobiological techniques, bioacoustic analyses, data analyses, animal handling and husbandry, as well as research report preparation. Your final grade will be a composite of the following:

75% OR 25% - Direct participation in a laboratory/research setting. This component will allow you to demonstrate your ability to acquire and utilize new techniques and skills in the course of conducting publishable research and participating (e.g., reading & discussing journal articles) in regular lab meetings. This will require a minimum of 5-8 hours per week spent in the lab, in blocks of time no less than 2 hours in length (* 13 weeks = 65-104 hours of research time in the lab in addition to time outside the lab for reading, writing etc.). This needs to be done in a consistent manner throughout the term, and not concentrated at the end of the term. This is a bare minimum if you want to have any chance at a decent grade.

25% OR 75% - Final report. This will consist of a literature review (approximately 10 pages) to the topic of research that you will focus on. The report is due by the final day of the term by 17:00. It is also expected that you will consult with me and the other senior members of the lab during the term and show us at least one draft before handing in the final version.

PSYCH 496/499 - *Honors*

Under the direction of a faculty member, students conduct an empirical research project culminating in the Honors Thesis. Prerequisite: PSYCH 399. Restricted to, and required of, fourth-year students in the Honors psychology program.

Course Objectives: The primary objective of this course is to expose and familiarise you with the field of comparative cognition (i.e., theory, data, and methods), and in particular, with advanced studies in songbird neuroethology. This will include you becoming skilled in all aspects of bioacoustical analyses, data analysis, animal handling and husbandry, as well as a research report. Your final grade will be a composite of the following: Carry out a research project based on the proposal developed in Honours Thesis I / II and write an honours thesis. This includes:

- Developing an understanding of study design and relevant research and statistical methods
- Improving information literacy and scientific writing skills through the development of a thesis

Evaluation: 100% - Participation in a laboratory/research setting. This component will allow you to demonstrate your ability to acquire and utilize new techniques and skills in the course of conducting publishable research and participating (e.g., reading & discussing journal articles) in regular lab meetings. This includes meetings with your supervisor to discuss research and new ideas.

OR

Evaluation: 75% - Participation in a laboratory/research setting. This component will allow you to demonstrate your ability to acquire and utilize new techniques and skills in the course of conducting publishable research and participating (e.g., reading & discussing journal articles) in regular lab meetings. This includes meetings with your supervisor to discuss research and new ideas as well as presenting your work at the Royce-Harder Conference.

25% - Final report. This will consist of producing an honors thesis. It is expected that you will consult with your supervisor during the term and provide at least one draft before handing in the final version. All standard sections must be included: title, abstract, introduction (consisting of a review of the relevant literature, setting the present study within that context), accurate and detailed methods section, results (reporting statistical tests), discussion and bibliography. APA format required.