Psychology
UNIVERSITY OF TORONTO

PSY 490H1 Seminar in Behavioural Neuroscience – Animal Models of Neuropsychiatric Disease

Fridays 12:00-2:00 pm, SS 2101

Contact Information

Instructor: Dr. Laura Corbit laura.corbit@utoronto.ca	
Office Hours: There will be many opportunities to ask questions in class. You can also make an appointment to see me at any time during the semester.	

Course Description, Goals, and Prerequisites

Course Description: The course will survey animal models of different neuropsychiatric conditions including consideration of behavioural and neural features. Course readings and discussions will critically evaluate ways to model aspects of neuropsychiatric conditions in animals. We will discuss the strengths and limitations of such methods and potential for the development of future therapeutic interventions.

Course Objectives: By the end of the course students will be able to:

- identify specific features of neuropsychiatric conditions
- connect animal behaviours and tasks to specific cognitive capabilities
- identify homologies between animal and human nervous systems and behaviours
- critically evaluate animal models of human conditions

Prerequisites: PSY202 (or equivalent), PSY290/HMB200
Exclusions: HMB310/PSY369H5/PSYC06H3

Reading Material/Textbook(s)

There is no assigned textbook for this course. Papers will be assigned throughout the course and will be available through the U of T library and/or Quercus.

Course Evaluation/Marking Scheme

Date	Assessment	Weight
Weekly	Participation	20%
Weekly	Reading Responses	25%
Once during semester	Presentation and Discussion	25%
April 10, 2023	Research Proposal	30%

Participation (20%)

This is a discussion-based course that provides a great opportunity to explore ideas and learn from each other. Good classroom participation includes reading the articles, adding to discussions and also listening to others and responding to others' comments. Asking questions about the presentations will count as participation. Class attendance will count toward, but not suffice for, participation. Be warned, I may directly ask you for your opinion of the readings or discussion particularly if you have not been participating much.
Aim to contribute to the discussion at least once each week and allow everyone else the opportunity to do the same (quality is more important than quantity). If you are absent due to illness, you will not be penalized and with a full class, perhaps not everyone will get a chance to comment each week but a pattern of minimal participation will be reflected in your mark.

Reading Responses (25%)

In order to improve discussion during class, written responses to the assigned readings will be due 1 hour before every class (please upload to Quercus). Please address the following in for each reading per class. Your summary should be no more than 2 pages (double-spaced, 12 point font). Additional specific questions may be assigned for specific readings. These will be provided the week before the response is due.

1. Identify at least one feature of the human condition that helps identify the condition (e.g. should be present for diagnosis).
2. Identify at least one way that the authors link something in an animal model to the human condition.
3. Summarize (4-5 sentences) what stood out to you as the most important points of the reading.
4. Note two questions you have about the condition or current state of research on the topic. These can be broad questions that came to mind while you were reading.

Your reading responses will be evaluated for clarity and thoughtfulness. You will get up to 3 marks for your work each week (0: not submitted; 1: submitted but incomplete; 2: good and complete; 3: exceptional, well-written and thoughtful). I will not be able to provide extensive individual feedback on each response each week, but will provide guidance if needed. Late responses will not be accepted but you will be permitted to skip 2 out of 9 responses over the semester without penalty. Many students may choose to skip the assignment on the day they are presenting.

Presentation and Discussion (25%)

Each class member is responsible for giving one presentation (approximately 30 minutes) on a research article related to one of the topics described in the schedule. The presentation should, with reference to a research article, describe an example of an animal model and what aspects of a neuropsychiatric condition it attempts to capture. The presentation should also critically evaluate the strengths and weakness of the research. While it is easy (and important) to identify limitations of studies, it is also important to identify what a paper contributes to the field and to consider how research can be improved and advanced. Even if the research was great, what

would be the next step? Finally, each presenter should also identify some questions for discussion by the class. Marking criteria will be provided in a separate handout.

Please let me know what paper you will present in advance so that I can make sure it is of appropriate scope (and that multiple students don't pick the same paper). Once we've agreed, the article will be shared with the class so that everyone can familiarize themselves with it.

Research Proposal (30%)

The research proposal should identify a specific issue related to an animal model and propose and experiment or series of experiments to investigate this issue. This can follow up on an issue raised in class, but this is not required. You can pick the same or different topic as your presentation but the proposal must go beyond readings and issues raised in the presentation. More details about the research proposal will be provided later in the course in a separate handout.

Course Webpage/Quercus

The website associated with this course is accessible via http://q.utoronto.ca

This site will be used to post course materials (e.g. syllabus, reading assignments), to make announcements, and this is where you will view your grades. It is your responsibility to check the course website on a regular basis for any important announcements. That said, much communication will happen during class and if you miss class please check with other students about anything you may have missed.

Course Policies

What to expect

This course provides an introduction to behavioural neuroscience research. We will discuss theoretical and practical issues related to what makes a good animal model from both behavioural and neuroscience perspectives. Assignments for this course involve critical evaluations of methodologies and ideas for how to progress the field. Further details about each assignment will be discussed in class and posted on Quercus.

Staying connected in the course

There will be lots of opportunities for questions in class. If something doesn't make sense to you, please ask questions early. Take responsibility for your learning and plan ahead; there is much more I can do to help if I am aware of a problem early. Please email me or schedule an appointment to discuss any personal issues. Please include PSY490 in the subject line as I am teaching multiple courses.

Absences

The Verification of Illness form or other documentation is temporarily not required. Students who are absent from academic participation for any reason (e.g., COVID, cold, flu and other illness or injury, family situation) and who require consideration for missed academic work should report their absence through the online absence declaration. The declaration is available on ACORN. Students should also advise their instructor of their absence within one week of the absence. If an absence extends beyond 7 consecutive days, or if you have a non-medical personal situation

preventing you from completing your academic work, you should connect with your College Registrar. They can provide advice and additional assistance.

Missed/Late Assessments

If you miss class or a deadline for any reason, please contact the instructor as soon as possible. You must declare your absence in ACORN within one week of the missed class or deadline however, I appreciate being notified about problems completing assessments as soon as possible.

Summaries are due 1 hour before class. Late submissions will not be accepted but you can miss two without penalty. If you are going to miss presentation, please let the instructor know as soon as possible so that an attempt to reschedule can be made.
If you have an ongoing issue that is likely to affect your performance in the course, please contact accessibility services (more details below).

Religious Accommodation

As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty from a wide range of cultural and religious traditions. For my part, I will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. Further to University Policy, if you anticipate being absent from class or missing a major course activity (such as a test or in-class assignment) due to a religious observance, please let me know as early in the course as possible, and with sufficient notice (at least two to three weeks), so that we can work together to make alternate arrangements.

Other

If anything else comes up for you over the semester, please schedule a time to talk to me and we will try to find a solution. There may be times when you are unable to complete course work on time due to non-medical reasons. If you have concerns, speak to me. It is also a very good idea to speak with an advisor in your College Registrar's office; they can support you in requesting extensions or accommodations, and importantly, connect you with other resources on campus for help with your situation.

Questions about grading

Any questions regarding a grade received in this course must be brought to the attention of the instructor within two weeks of receiving the graded work. You must present a clear argument for why the mark is in error and detail the item(s) that were not assessed accurately. Claims that the assigned marks were simply too low (or too high) will not be considered. A legitimate request will result in a re-grade of the entire work which may result in a higher, lower or identical grade.

Students with Accommodation Requirements

Students with diverse learning styles and needs are welcome in this course. If you have an acute or ongoing disability issue or accommodation need, you should register with Accessibility Services (AS) at the beginning of the academic year by visiting http://www.studentlife.utoronto.ca/as/new-registration. AS will assess your situation, develop an accommodation plan with you, and support you in requesting accommodation for your course work. Remember that the process of accommodation is private: AS will not share details of your needs or condition with any instructor, and your instructors will not reveal that you are registered with AS. Please note that the registration process can take time and so if you anticipate needing their services at any time in the semester register now.

Academic Integrity

All students, faculty and staff are expected to follow the University's guidelines and policies on

academic integrity. For students, this means following the standards of academic honesty when writing assignments, collaborating with fellow students, and writing tests and exams. Ensure that the work you submit for grading represents your own honest efforts. Plagiarism—representing someone else's work as your own or submitting work that you have previously submitted for marks in another class or program—is a serious offence that can result in sanctions. Speak to me or your TA for advice on anything that you find unclear before submitting your work. To learn more about how to cite and use source material appropriately and for other writing support, see the U of T writing support website at http://www.writing.utoronto.ca Consult the Code of Behaviour on Academic Matters for a complete outline of the University's policy and expectations. For more information, please see https://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity and http://academicintegrity.utoronto.ca

University's Plagiarism Detection Tool
Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation website

(https://uoft.me/pdt-faq).

Other Resources
As a student, you may experience a range of challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation. These factors may affect your academic performance and/or reduce your ability to participate fully in daily activities. There are many helpful resources available through your college Registrar or through Student Life (studentlife.utoronto.ca). An important part of the University experience is learning how and when to ask for help. Please take the time as early as possible to inform yourself of available resources and do not hesitate to seek assistance to help learn what supports are available.

Student Life Programs and Services (http://www.studentlife.utoronto.ca/)
Academic Success Services (http://www.studentlife.utoronto.ca/asc)
Counselling and Psychological Services (http://www.studentlife.utoronto.ca/hwc)

TENTATIVE - Course Outline/Schedule – this may be revised after our first meeting

Date	Topic	Assignments
Jan 13	1. Introduction, diagnostic criteria, animal models, scheduling	
Jan 20	2. Depressive Disorders	Reading responses are due weekly starting Week 2
Jan 27	3. Anxiety Disorders	Each student will present once during the semester
Feb 3	4. Trauma and Stressor Related Disorders	
Feb 10	5. Obsessive Compulsive and Related Disorders	
Feb 17	6. Substance-Related and Addictive Disorders	
Feb 24	**READING WEEK – NO CLASS**	
Mar 3	NO CLASS - Dr. Corbit away	
Mar 10	7. Feeding and Eating Disorders	
Mar 17	8. Autism Spectrum Disorder	
Mar 24	9. Attention Deficit/Hyperactivity Disorder	
Mar 31	10. Schizophrenia	
Apr 7	NO CLASS – GOOD FRIDAY	
Apr 10	Make up day if needed*	Research Proposal

*** Our schedule is impacted by a holiday reducing flexibility for rescheduling. I am not going to schedule anything for make-up Monday in advance but we may need to use this day if presentations are missed due to illness etc. over the course of the semester.**