

# **PSY 369H1 – Psychobiology Laboratory**

Thursdays 1-4 pm, Ramsay Wright 307

Contact Information				
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#### **Course Description, Goals, and Prerequisites**

**Course Description:** An introduction to experimental methods in behavioural neuroscience, including neuroanatomical and psychopharmacological methods in rodents. Course exercises will cover experimental design, laboratory techniques, data analysis, and scientific writing.

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

- handle rodents.
- perform basic histological techniques on frozen brain tissue.
- collect, analyze and interpret behavioural neuroscientific and pharmacological data.
- apply critical and creative thinking, skeptical inquiry and the scientific approach to answer questions related to learning and behaviour.
- compose a journal article style scientific report.

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

#### Reading Material/Textbook(s)

There is no assigned textbook for this course. Research articles will be assigned throughout the course.

#### Course Evaluation/Marking Scheme

Date	Assessment	Weight
Sept. 22nd, 2023	Animal Model Evaluation	10%
Oct. 13 <sup>h</sup> , 2023	Introduction	10%
Oct. 27th, 2023	Methods & Results	20%
Nov. 3rd, 2023	Discussion	15%
Nov. 30th, 2023	Histology	10%
Dec. 7 <sup>th</sup> , 2023	Final Paper	35%

#### **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, slides), to make announcements, and this is where you will view your grades. *If you have any general questions regarding Quercus, please visit <u>https://q.utoronto.ca/courses/46670</u>). That said, most communication will happen during class.* 

## **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 experiment from both behavioural and neuroscience perspectives. You will receive hands-on experience performing experiments and writing up experimental results. Assignments for this course are either critical evaluations of methodologies or journal-style reports related to experiments performed in class. 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. As a laboratory class, participation is important; the more you engage, the more you will get out of the experience.

#### **Specific Medical Circumstances**

If you become ill and it affects your ability to do your academic work, consult me right away. Normally, I will ask you for documentation in support of your specific medical circumstances. This documentation can be an Absence Declaration (via ACORN) or the University's Verification of Student Illness or Injury (VOI) form. The VOI indicates the impact and severity of the illness, while protecting your privacy about the details of the nature of the illness. You can submit a different form (like a letter from a doctor), as long as it is an original document, and it contains the same information as the VOI. For more information on the VOI, please see <u>http://www.illnessverification.utoronto.ca</u>. For information on Absence Declaration Tool for A&S students, please see <u>https://www.artsci.utoronto.ca/absence</u>. If you get a concussion, break your hand, or suffer some other acute injury, you should register with Accessibility Services as soon as possible.

#### Missed/Late Assessments

If you miss class or a deadline for any reason, please contact the instructor as soon as possible. I appreciate being notified about problems completing assessments as soon as possible. If you have an ongoing issue that is likely to affect your performance in the course, please contact accessibility services (more details below).

Extensions are possible where warranted however late assignments will not be accepted after feedback is provided to the class (usually the next class after the deadline). Please refer to the Specific Medical Circumstances policy above regarding required documentation.

#### **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 backgrounds, cultural traditions, and spiritual beliefs. 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 (like 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.

#### **Accessibility Needs**

Students with diverse learning styles and needs are welcome in this course. If you have an acute or ongoing accommodation need, you should register with Accessibility Services (AS) (www.accessibility.utoronto.ca) at the beginning of the academic year. AS will assess your medical situation, develop an accommodation plan with you, and support you in requesting accommodation for your course work. I will work with AS to ensure appropriate accommodation in this course. Remember that the process of accommodation is private: AS will not share details of your condition with any instructor, and your instructors will not reveal that you are registered with AS. Note that registration with AS takes some time and so do this early in the semester if you think you will require their assistance.

#### **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.

#### **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 <a href="http://www.writing.utoronto.ca">http://www.writing.utoronto.ca</a> Consult the Code of Behaviour on Academic Matters for a complete outline of the University's policy and expectations. For more information, please see <a href="http://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity">http://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity and <a href="http://academicintegrity.utoronto.ca/current/academic-advising-and-support/student-academic-integrity">http://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity and <a href="http://academicintegrity.utoronto.ca/">http://academicintegrity.utoronto.ca/current/academic-advising-and-support/student-academic-integrity and <a href="http://academicintegrity.utoronto.ca/">http://academicintegrity.utoronto.ca/current/academic-advising-and-support/student-academic-integrity and <a href="http://academicintegrity.utoronto.ca/">http://academicintegrity.utoronto.ca/current/academic-advising-and-support/student-academic-integrity and <a href="http://academicintegrity.utoronto.ca/">http://academicintegrity.utoronto.ca/</a>

## A note on Al

Representing as one's own an idea, or expression of an idea, that was AI-generated may be considered an academic offense in this course. This course policy is designed to promote your learning and intellectual development and to help you reach course learning outcomes.

#### **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 (<u>http://www.studentlife.utoronto.ca/</u>) Academic Success Services (<u>http://www.studentlife.utoronto.ca/asc</u>) Counselling and Psychological Services (<u>http://www.studentlife.utoronto.ca/hwc</u>)

# Course Outline/Schedule

Date	Торіс	Assignments
Sep 7	1. Introduction, Animal models	Read Deroche-Gamonet et al. 2004
Sep 14	2. Animal Care Training 1*	Online modules must be completed prior to class.
Sep 21	3. Animal Care Training 2*	Animal Model Evaluation (10%)
Sep 28	4. Animal Care Training 3*	
Oct 5	5. Experiment 1, Day 1	
Oct 12	6. Experiment 1, Day 2	Introduction for Experiment 1 (10%)
Oct 19	7. Experiment 1, Day 3	
Oct 26	8. Experiment 2, Day 1	Methods and Results for Experiment 1 (20%)
Nov 2	9. Experiment 2, Day 2	Discussion for Experiment 1 (15%)
Nov 9	READING WEEK – NO CLASS	
Nov 16	10. Experiment 3, Day 3 (as needed)	
	Histology: slicing and staining	
Nov 23	11. Histological Analyses	
Nov 30	12. Advanced techniques and course wrap-up	Histology (10%)
Dec 7		Final Paper (35%)

\* These sessions are mandatory in order to perform experiments later in the class. Note: Topics may be updated if more or less time is needed for particular topics based on feedback from the class. Experiment and assignment dates will remain as posted unless discussed and agreed upon in class.