PSYD66H3: Current Topics in Human Brain and Behaviour

Understanding human behaviour through animal models

2023 Winter

Instructor Information

Debra Bercovici (She/Her/Hers)

Email: d.bercovici@utoronto.ca

- Please put course code (PSYD66) in the subject line for prioritized responding
- Replies within ~24 business day hours

Office Hours:

- By appointment
- Click here Links to an external site. to book via Calendly
- Click here Links to an external site. to go to my virtual office on Zoom

I'm available to discuss course content, address concerns about the course or your UTSC experience, talk about grad school and non-academic career paths, and find ways to connect you with resources and better support you as a student. I am also available if you need a mental health check-in.

Course Quick Links:
Syllabus

Q&A Discussion Board
Zoom classroom (Tuesdays 11am-1pm)

Course Modules (*tentative as of Jan 1st*)		
TOPICS	READINGS	ASSIGNMENTS
Week 1 (Jan 10): Syllabus + Translation Basics		
Week 2 (Jan 17): Amygdala in Emotion + Social Behaviour	Felix-Ortiz & Tye, 2014	
Week 3 (Jan 24): Memory + Neurogenesis	Akers et al., 2014	
Week 4 (Jan 31): Depression	Gobinath et al., 2018	Article Reflection #1 (due: Feb 3)
Week 5 (Feb 7): Intergenerational Trauma/Anxiety	Dias & Ressler, 2014	
Week 6 (Feb 14): Decision-making	Steiner & Redish, 2014	Project Proposal (due: Feb 17)
Week 7 (Feb 28): Dopamine + Parkinson's	Guest Lecture; Reading TBA	Peer Review (due: Mar 3)
Week 8 (Mar 7): Schizophrenia + Executive Functioning	Egerton et al., 2005	
Week 9 (Mar 14): Opioid Addiction	Bates et al, 2014	Article Reflection #2 (due: Mar 17)
Week 10 (Mar 21): Neurodevelopment + Drug Use	Hamidullah et al., 2021	
Week 11 (Mar 28): Sex as a Biological Variable	Shansky & Murphy, 2021	

[Week 12](#) (Apr 4): Project Week		[Final Project](#) (due: Apr 4)

Acknowledgment: The University of Toronto is located on land belonging to the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. The Scarborough campus is also located on land belonging to the Anichnabeg, the Chippewa, and the Haudenosaunee peoples. In addition to settling on tradition and ancestral land, we are occupying it for the purpose of participating in an educational system that was built on and continues to uphold colonial frameworks.

To learn more about the land which we are occupying, as well as about land acknowledgements, visit [Native Land.caLinks to an external site.](#)

If you have ideas on how we can begin to decolonize our classroom and incorporate Indigenous ways of knowing, I would be eager to learn more from you.

Course Description

Current Topics in Human Brain and Behaviour
Understanding human behaviour through animal models

As neuroscientists, one of our aims is to understand how our biology and physiology guide our behaviour. Due to the limits in how we can study brains in humans, many of us focus our attention on studying animal brain and behaviour as a proxy for human brain and behaviour. However, what happens when the bridge between animal and human brain and behaviour isn't clear?

Throughout this course, we will explore how to consider the design, analysis, and interpretation of findings from research in animal models looking to explain human behaviour and how this research impacts the "real world."

If this is your first D-level course, you'll notice that it is less lecture-based and more like a seminar or journal club. We'll discuss brain and behaviour concepts based on the theme of translational research through reading and discussing primary literature. Instead of exams, you'll demonstrate what you learn through application-based evaluations. There is also more flexibility to apply the overarching theme of this course to avenues that resonate most with you.

Course learning objectives

This semester I hope that you're able to:

1. Understand the basics of using animal models to study human behaviour
2. Increase your comfort in navigating and applying animal research concepts as a means to understanding human behaviour
3. Develop a critical lens for experimental design and methodology in relation to translation
4. Gain experience in activities common within the research community, including participating in seminars, writing a proposal, and contributing to peer review
5. Explore the gap between academic research and "real world" scenarios
6. Create a project that combines brain and behaviour topics with your broader career goals

Course Schedule

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Course Logistics

Quercus Modules

You can find each weekly module on Quercus. Each module contains the learning objectives and checklist for each week. This is also where you will find the base of the weekly course context. Most weeks include a few pages on concepts we will discuss as well as an academic article that we will analyze in depth. It would be great for you to review the material ahead of the Tuesday class, but it is not necessary for your success. These modules replace the need for lecture slides.

Tuesday classes

You are invited to attend and contribute to classes on Tuesdays. If you cannot attend in person (e.g. you are sick), a Zoom option is available. We will be discussing the content from the module in more depth, and the direction of our discussion will be driven by your interest and contributions.

Since I will be recording our lectures on Zoom, your classroom participation will also be recorded and will be available to students in the course for viewing remotely. Course videos and materials belong to your instructor/University and are protected by copyright. You are permitted to download lecture recordings and materials for your own *academic* use, but you are not permitted to copy, share, or use them for any other purpose without the explicit permission of the instructor. Please reach out if you have any questions about this.

Handing in work

All assignments are to be completed on Quercus. You can access the assignment page directly from the assignment tab or indirectly from the modules (during the week it is due) or the course schedule. More on each assignment to come...

Contacting Debra

You can book a virtual office hour with me on [Calendly Links to an external site.](). I'm available to discuss course content, address concerns about the course or your UTSC experience, discuss grad school and non-academic career paths, and find ways to connect you with resources and better support you as a student. I am also available if you need a mental health check-in. The link to my Zoom office is: [https://utoronto.zoom.us/my/d.bercoviciLinks to an external site.]()

You can also send me an email at [d.bercovici@utoronto.ca]() Please put the course code (PSYD66) in the subject line for prioritized responding. You can expect a reply within ~24 business day hours.

If your needs are best met in person, I am usually available before classes on Tuesday. Send me an email and we can figure something out.

Evaluations

Your grade in this class can be broken down as follows:

Item	Due date	Percentage of grade
Article Reflection #1	February 3rd*	15%
Project Proposal	February 17th*	15%
Peer Review	March 3rd*	15%
Article Reflection #2	March 17th*	15%
Final Project	April 4th*	30%
Classroom Contribution	-	10%

*All submissions are due by the end of the day (23:59 ET). There is no explicit late submission policy. Once submission closes on Quercus, you will be unable to submit your assignment. If this happens to you, please send me an **email/book an office hour so we can work out how best to accommodate your situation**. If I don't hear from you, your submission will remain empty thus, you will receive a 0%.

Departmental Position on Grade Norms

The Department of Psychology at UTSC is committed to providing fair, consistent, and uniform delivery of its courses from year to year. As part of this commitment, the Department mandates that all D-level courses' final course averages are around 75-78%. You can expect that the **final** class average for the course will fall within this range.

Brief item descriptions

Article Reflections:

These reflections are ~400-word assignments demonstrating the application of course content. You will choose a journal article from the options provided and discuss its merits and drawbacks regarding translatability. These reflections are modelled based on how we discuss papers in class (e.g. exploring the experimental design, methodology, result interpretations, and "real-world" impacts) but touch on an aspect of human behaviour that we have not explored. You can access the assignment pages to see

more details and to take a look at the rubric: Click here for article reflection #1 and click here for article reflection #2.

Project:

FINAL PROJECT:

I want this course to be useful for you. Since not all of you are planning to go to grad school or study behavioural neuroscience, I want to make sure that you are still able to do something relevant to your goals. That is why your final project is an open-ended product that incorporates the themes within the course. You will decide on what you want to do based on your interests and then apply what you've learned about the principles of understanding human behaviour based on animal models. Head to the final project assignment page for more detailed information and project ideas.

A large part of this course will be participating in typical activities within the academic community. In conjunction with your final project you will practice writing a project proposal and participating in a peer review process

PROJECT PROPOSAL:

Before completing your final project, you will put together a project proposal. This will allow me to make sure what you are planning to create contains enough pertinent content that I can evaluate it fairly. This project proposal will also serve as practice for those of you planning to work within academia. Researchers spend a lot of time writing up their future projects in a way that sells the reader on their ideas. We need this to get funding and approval to start our work. It's also an opportunity for us to get feedback about whether our idea could benefit from tweaks.

On the proposal page, I've outlined what information you should include as well as the grading rubric. Once you have submitted your proposal, you will participate in a peer review process.

PEER REVIEW:

When scientists go to publish their work, they seek out (mostly anonymous) reviews from their peers. Other scientists are tasked with reading their work and offering critiques about its value within the field. This process is crucial for maintaining integrity, innovation, and critical thinking. To ensure your projects are as successful as they can be, you will anonymously review two of your classmates proposals. You will offer your feedback, point out any unclear areas, and suggest how they can make their projects better. You will be graded on the quality of the feedback you provide. Access the Peer Review page for a complete description.

Classroom Contributions

Your contributions to our classroom are meaningful. You can contribute in any way you want: Zoom chat, canvas discussions, asking questions, answering questions, sending

me feedback via email, chatting with me during office hours, adding to the JamBoard, etc.

Psychology department Policy Statements

Quercus

This course uses the University's learning management system, Quercus, to post information about the course. This includes posting readings and other materials required to complete class activities and course assignments, as well as sharing important announcements and updates. The site is dynamic and new information and resources will be posted regularly as we move through the term, so please make it a habit to log in to the site on a regular, even daily, basis. To access the course website, go to the U of T Quercus log-in page at https://q.utoronto.ca. Once you have logged in to Quercus using your UTORid and password, you should see the link or "card" for PSYD66H3 S LEC01. You may need to scroll through other cards to find this. Click on the PSYD66H3 S LEC01 link to open our course area, view the latest announcements and access your course resources. There are Quercus help guides for students that you can access by clicking on the "?" icon in the left side column.

SPECIAL NOTE ABOUT GRADES POSTED ONLINE: Please also note that any grades posted are for your information only, so you can view and track your progress through the course. No grades are considered official, including any posted in Quercus at any point in the term, until they have been formally approved and posted on ACORN at the end of the course. Please contact me as soon as possible if you think there is an error in any grade posted on Quercus.

Department of Psychology Missed Term Work Policy

For missed term work (assignments and term tests) due to illness, emergency, or other mitigating circumstances, please follow the procedures outlined below.

Note:

- The following reasons are not considered sufficient for missed term work: travel for leisure, weddings, personal commitments, work commitments, human error.
- Missed *Final* Exams are handled by the Registrar's Office and should be declared on eService.
- Instructors cannot accept term work any later than five business days after the last day of class. Beyond this date, accommodations are only possible via the Registrar's Office petition process.

The email address to submit missed term work accommodation requests in PSYD66H3 S LEC01 is: d.bercovici@utoronto.ca

ILLNESS OR EMERGENCY accommodations:

For missed work due to ILLNESS OR EMERGENCY, complete the following process:

1. Complete the Request for Missed Term Work Accommodations Form.
2. Declare your absence on ACORN (Profile & Settings > Absence Declaration)
3. Email **both** of the following items to the course email **within 2 business days** of the missed work:
    o the Request for Missed Term Work Accommodations Form
       AND
    o a screenshot of your Self-Declared Absence on ACORN

   Note:

- *If you are unable to submit your request within 2 business days, you must still email your instructor within the 2 business day window to explain the nature of the delay. Exceptions to the 2 business day deadline will only be made under exceptional circumstances.*
- *If your absence is declared on ACORN, we do not require any additional supporting documentation (e.g. medical notes) to support your missed term work accommodation request.*

ACADEMIC CONFLICT accommodations:

For missed term work due to an ACADEMIC CONFLICT (e.g. two midterms at the same time):

1. Complete the Request for Missed Term Work Accommodations Form.
2. Take screenshots of your course Quercus pages that demonstrate the conflict.
3. Email the form and screenshots to the course email **at least two weeks (10 business days) before the date of the activity,** or as soon as possible if it was not possible to identify the conflict earlier. Requests sent after the activity deadline may not be accommodated.

Note:

- *Multiple assignments due on the same day are not considered conflicts. Students are expected to manage their time effectively to meet assignment deadlines.*
- *Back-to-back tests/quizzes are not considered conflicts. Only overlapping activities are conflicts.*
- *Students are responsible for keeping their course timetables conflict-free. Students who register in two courses with overlapping lecture/tutorial/lab schedules will not be accommodated.*

RELIGIOUS CONFLICT accommodations:

For missed term work due to a RELIGIOUS CONFLICT:

1. Complete the [Request for Missed Term Work Accommodations Form](#).
2. Email the form to the course **email at least two weeks (10 business days) before the date of the activity**, or as soon as possible if it was not possible to identify the conflict earlier. Requests sent after the activity deadline may not be accommodated.

ACCESSABILITY SERVICES accommodations:

For missed *TERM TESTS* due to ACCESSABILITY REASONS:

- **Contact your AccessAbility consultant** and have them email the course email detailing accommodations required.

For missed *ASSIGNMENTS* due to ACCESSABILITY REASONS:

- If your desired accommodation is **within the scope** of your Accommodation Letter (e.g. your letter includes "extensions of up to 7 days" and you need 3 days):
  1. Complete the [Request for Missed Term Work Accommodations Form](#).
  2. Email the form ***AND*** your **Accommodation Letter** to the course email specifying how many days extension you are requesting.
- If your desired accommodation is **outside the scope** of your Accommodation Letter (e.g. your letter includes "extensions of up to 7 days" but you need more time than that):
  1. **Contact your AccessAbility consultant** and have them email the course email detailing the accommodations required.

Accommodation Procedure:

After submitting your documentation, you will receive a response from your instructor or TA. This form does not guarantee that you will be accommodated. The course instructor reserves the right to decide what accommodations (if any) will be made. Failure to adhere to any aspect of this policy may result in a denial of your request. **You are responsible for checking your official U of T email and Quercus course announcements daily**, as accommodations may be time-critical.

For missed assignments, **do not wait for the instructor's response to resume work on your assignment.** Extensions may be as short as one business day, depending on the nature of the illness/emergency. Complete your assignment as soon as you're able, and email it to your instructor.

For an **anticipated absence** (e.g. a scheduled surgery or an illness with a prolonged recovery period), if you would like to request accommodations in advance, submit

a [Verification of Illness Form Links to an external site.](#)completed by your doctor AND the [Request for Missed Term Work Accommodations Form](#) to the course email. Absences can be declared up to 14 days into the future on ACORN.

Missed Accommodations

If an accommodation is granted but a continued illness/emergency prevents you from meeting its requirements, you must <u>repeat</u> the missed term work procedure to request additional accommodations. **Please make it clear in your subject line that you are requesting a second accommodation.** E.g. If you are given an extension but are still sick and need more time, or if you miss a <u>make-up</u> term test, you must submit *another* [Request for Missed Term Work Accommodations Form](#) and declare your extended absence on ACORN. *Note: In the case of a missed make-up test, an opportunity to write a second make-up test may not necessarily be provided.

Disability-Related Accommodations

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office (http://www.utsc.utoronto.ca/ability/) as soon as possible.

AccessAbility Services staff (located in Rm AA142, Arts and Administration Building) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. Please contact 416-287-7560 (tel/TTY) or email ability.utsc@utoronto.ca for more information.

The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Academic Integrity

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (http://www.governingcouncil.utoronto.ca/policies/behaveac.htm) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

Potential offences in papers and assignments include using someone else's ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment.

On tests and exams cheating includes using or possessing unauthorized aids, looking at someone else's answers during an exam or test, misrepresenting your identity, or

falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

Religious Accommodations

The University has a commitment concerning accommodation for religious observances. I will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. According 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.

Equity, Diversity, Inclusion

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

Masks in the Classroom

While the mask mandate has been paused as of 1 July 2022, the use of medical masks continues to be strongly encouraged at U of T Scarborough in indoor settings where physical distancing is not possible. We ask everyone to respect each other's decisions, comfort levels, and health needs. Masks are available at all building entrances at U of T Scarborough and in all classrooms.

Inclusivity and Safe Classrooms

Our classroom is a community where students should feel included and are treated equitably. This refers to identities including, but not limited to, gender identity, gender expression, sex, race, ethnicity, socioeconomic background, sexual orientation, political and religious affiliation, disability, health, and age. When we encounter controversial and/or sensitive issues, discussion is encouraged. However, students should feel safe to explore ideas without fear of being judged. If a statement or behaviour is likely to offend/alienate/discriminate against others, it should not be shared with the class. Instead, please share it with me after class or during office hours. Any behaviour that compromises the safety of our environment will not be tolerated and you will be removed from the space (Zoom or in-person). If at any point during the semester you feel offended, threatened, or alienated by anything that happens during our class (including by me), please feel welcome to let me know.

One thing to keep in mind is that we are bound to make mistakes in this space, as does anyone when approaching complex topics. Strive to see your mistakes and others' as valuable elements of the learning process. I am also constantly learning from my mistakes.

A note on masking: I view masking as inclusivity + health and classroom safety. I encourage all of you to promote inclusivity and classroom safety by wearing a mask. If anyone wants to discuss this topic in more depth, I'm available outside of class time.

(Inspired by the Safe Classroom statements from Dr Lily May's 2021 syllabi at UBC)

Accessibility

If you have accessibility needs, you are welcome in our classroom community. Please let me know if there is a way that I can better accommodate you and your peers.

Here are some ways I am committed to increasing classroom accessibility:

- Offering online and asynchronous ways of contributing to the course
- Encouraging mask-wearing
- Accommodating flexible deadline needs*****
- [Upholding classroom safety](#)
- Creating unambiguous grading rubrics, weekly checklists, and diverse assignments
- Sharing class discussion questions ahead of time

*If this is something you need, please reach out to me so that we can make the course work for you. You can reach out to me at the start of the semester and as needs arise/change, expected or unexpected. There is no expectation to divulge personal health information. Seeking accommodations for your needs shouldn't be burdensome. However, if your preference is to follow the processes laid out by the department, you can follow the steps outlined on the page: [Psychology department Policy Statements](#)

Academic Integrity

My take on Academic Integrity

Academic integrity is what all members of the UTSC community, from first-year undergraduates to publishing professors, aspire to when they do research. Having academic integrity means taking responsibility for and having pride in your work, especially when it connects through practices such as crediting the work of others.

Having strong academic integrity is a qualifying behaviour that welcomes you as a scholar to the academic community

Academic Integrity is about being loyal and respectful to those who have created content and about encouraging YOU to create work independently that you can feel proud of.

I don't expect you to have the "perfect" answer, but I do expect you to do your work with academic integrity. This includes:

- **Doing your OWN work:** everything you submit should be completed by you
- **AVOID collusion:** this involves working too closely with your peers without authorization.
- **DO NOT** share materials provided to you in this course. Please respect the copyright surrounding the work I've put in to offer you this course. If you'd like to share the content I've created, please speak with me first.
- **DO** engage with the ideas of others, both past and present, in a variety of scholarly platforms such as research journals, books by academics, lectures, etc.
- **BUT ALSO** explicitly acknowledge the sources of your knowledge, especially through accurate citation practices

As members of our learning community, I want to invite you to spend some time thinking about what academic integrity means to YOU. What behaviours can you and your classmates engage in to make sure you are achieving your learning objectives and that your work is something you can be proud to represent.

If you're at risk of breaching academic integrity due to external and extenuating circumstances or a lack of accessibility, please come talk to me about how we can make the classroom a place where these coping mechanisms aren't necessary.

University Code of Behaviour on Academic Matters

If there is a breach in academic integrity, you may face consequences as per the university policy. Click here to access the document that outlines what constitute academic dishonesty and the processes U of T takes for addressing academic offences.

Teaching Values

Transparency

Being transparent is important to me and my goal is never to conceal my motives. If something is unclear, that's my bad. I'll try to clarify!

Non-hierarchical learning

I don't like to pretend that I am the expert. I may know more about certain topics than you, but I am confident that in other domains, you hold more knowledge and experience than I do. I invite you to share when I've said something wrong or when you have a better idea than me.

This is YOUR education

If something I'm doing isn't conducive to your learning, I'm open to altering course. You are the one paying for this education and you deserve to learn in a way that is best for you.