

PSYCHOLOGY 304B-921 BRAIN & BEHAVIOUR

Summer 2026

ABOUT PSYCH 304. Psychology 304 surveys the major topic areas in behavioural neuroscience. In this course, we will take a journey through learning how biological brain processes orchestrate the expression of complex behaviours and integrate our perception of the world around us. Once we gain an understanding of the basic tenets of biopsychology, we will explore how disruptions of normal brain function can result in pathologies like addiction, schizophrenia, anxiety, and depression.

LECTURE MODALITIES:

Synchronous in-person (SI) lectures will be held from 6:30PM to 9:30PM (Buchanan Building A101); these classes will not be live streamed but will be recorded and posted to Canvas.

Synchronous online lectures (SO) will be held on Zoom but will *not* be recorded.

Asynchronous recorded (AR) lectures are pre-recorded and posted to Canvas at 9am on the scheduled day.

COURSE SCHEDULE & CONTENT:

| TERM 1 | | |
|---------------------|--|--------------------------|
| Date | Topic | Suggested Reading |
| May 12 (SI) | Syllabus and introduction to biopsychology | Syllabus & Chapter 1 |
| May 14 (SI) | Basic neuroanatomy and primer on biology | Chapters 2 & 3 |
| May 19 (AR) | Neural conduction & transmission | Chapter 4 |
| May 21 (AR) | Research methods in biopsychology | Chapter 5 |
| May 26 (AR) | Visual system | Chapter 6 |
| May 28 (AR) | | |
| June 2 (SO) | Exam review – Question & answer period | Not Recorded |
| June 4 | Exam 1 (NO CLASS) | Take home exam on Canvas |
| June 9 (AR) | Sensory systems & perception | Chapter 7 |
| June 11 (SI) | | |
| June 16 (SI) | Sensorimotor system (Raymond MacNeil) | Chapter 8 |
| June 18 | Exam 2 (NO CLASS) | Take home exam on Canvas |
| TERM 2 | | |
| July 7 (AR) | Brain dysfunction | Chapter 10 |
| July 9 (SI) | Hormones & sex | Chapter 13 |
| July 14 (AR) | Hunger & eating | Chapter 12 |
| July 16 (SI) | Learning & Memory 1 | Chapter 11 |
| July 21 (SO) | Exam review – Question & answer period | Not Recorded |
| July 23 | Exam 3 (NO CLASS) | Take home exam on Canvas |
| July 28 (SI) | Circadian rhythms | Chapter 14 |
| July 30 (SI) | Addiction & reward | Chapter 15 |
| Aug 4 (AR) | | |
| Aug 6 (SI) | Psychiatric disorders | Chapter 18 |
| Aug 11 (AR) | | |
| Aug 13 (SI) | Pain or ADHD – Class Picks | TBA |

INSTRUCTOR:

Dr. Tristan Hynes, PhD
thynes@psych.ubc.ca

Drop-in office hours: Directly after SI and SO classes.

Emails: Email is by far the **fastest** way to communicate with me. I usually respond within 8 hours but may take up to 24 hours over the weekend or during holidays. We can usually address all technical/administrative issues (e.g., missed exams, accommodations, etc.) over e-mail. Grade disputes (see policy below) should first be directed to your TAs and, if a resolution cannot be achieved, you may escalate the issue to me. Please use your UBC e-mail when contacting me and cite the course code (PSYC 304B-921) in the subject line.

One-on-one meetings: All one-on-one meetings with me can be scheduled via email. It is always my pleasure to meet with students, but the large class size limits my bandwidth. Out of fairness for your peers, please book meetings only when an e-mail will not suffice (e.g., you need to discuss a complex theoretical topic, you want to discuss a career in science, or you need to discuss a sensitive personal issue that you are uncomfortable sharing via email). Your TAs are also more than happy to meet with you to discuss course materials or neuroscience in general.

TEACHING ASSISTANTS: Your teaching assistants have expertise in various topics of Brain & Behaviour, which makes them an excellent resource. Please reach out to them via email or to schedule a meeting regarding things such as issues with marking or grade disputes. They will also be able to answer basic questions about the course material.

Raymond MacNeil – office hours by appointment
raymond.macneil@psych.ubc.ca

Douglas Forrest – office hours by appointment
douglas.forrest@psych.ubc.ca

DISCUSSION FORUM: Under the Canvas discussions, there is a forum that you can use to discuss with your peers about course material. If something from the class was unclear to you and you would like to get an opinion, clarification, or alternate take from your peers, please post it there. This is also a good place to ask one of your peers to fill you in on what was covered in the lecture if you missed a class. This forum is not monitored by me or the TAs.

TEXTBOOK: *Pinel, John R. and Stephen Barnes. Biopsychology, Global Edition. ©2021. Pearson. ISBN: 9781292351933.* Though many of the lectures are inspired by

the textbook, you will not be examined on textbook content not covered in lecture. Any edition of the textbook is suitable.

ONLINE RESOURCES: We will be using Canvas (<https://canvas.ubc.ca/>) for the posting of lecture slides, exams, grades, and PDFs of extra assigned readings. Slides will be posted several hours before each lecture. All contact with the instructor and TA should be via your UBC e-mail to their UBC e-mail.

EVALUATION:

Exam 1 (10%) – June 4, 2026 (take home)

Exam 2 (20%) – June 18, 2026 (take home; non-cumulative)

Exam 3 (20%) – July 23, 2026 (take home; non-cumulative)

Exam 4 (40%) – Date set by the University (cumulative)

Attendance (10%) – see **evaluation particulars**

Evaluation particulars: **Exams 1 - 3** are open book and will consist of a set of short written answer questions. There are no multiple-choice questions. The exam will be posted to canvas at 9:00 AM, you will have no class on exam days, and you will have 72 hours to answer the questions and submit them on Canvas. Without a valid excuse, late submissions will be penalized at 10% per hour. **Exams 1-3** are designed to be written in 3 hours, but due to possible scheduling constraints with your other classes, I have opted to give you an entire 72 hours to write it. As such, if you have extra time allotment through the Centre for Accessibility (CfA), you will still be required to submit your exam after 72 hours (i.e., your extra time is more than accounted for in the 72-hour allotment). **Exams 1 - 3** will NOT be cumulative, but new topics will often integrate previously learned concepts. **Exam 4** will be cumulative and handwritten in ink, in-person. Pencils are not allowed. **Attendance** evaluation is all-or-nothing: to receive the 10% attendance mark you must (a) attend and ask a question at **five SI lectures**, OR (b) attend *and* ask a question – **with your camera on** – at all question-and-answer periods.

Relative grading: Your work will be evaluated in the context of how the class performs overall. The Department of Psychology sets guidelines for the average grade in 300-level courses (around 73%), and I design exams with this in mind so the distribution should naturally fit these expectations. This means your grade reflects both how well you demonstrate your own understanding and how that compares to your peers, reducing the need for after-the-fact scaling.

Missed exam policy: In the case that you must miss an exam, I will transfer the weight of the missed exam to the next exam. For example, if you miss Exam 2 (20%), Exam 3 (20%) will now be worth 40%. If you miss the final exam with a valid excuse, you must speak to your faculty or CfA advisor.

Grade dispute policy: If you believe you should have been graded differently after independently reviewing your exam, please send an e-mail to your TAs that very briefly

(< 250 words) explains why you should have been graded differently and your proposed change to your grade. This process is usually effective in resolving any grading discrepancies. However, if you cannot come to an agreement with your TA, you may request that they escalate the matter to me.

GRADING: Your grades for exams will be posted on Canvas. To reduce grade inflation and maintain equity across course sections, all psychology courses are required to comply with departmental norms for grade distributions. According to departmental norms, the mean grade in a 300-level class is 73% for an average class, 71% for a weak class, and 75% for an exceptionally strong class (with a standard deviation of 13%). Scaling may be used to comply with these norms. Grades may be scaled up or down as necessary by the instructors or the department. Grades are not official until they appear on your transcript. You will receive both a percent and a letter grade for this course. At UBC, your course percentage is converted to a letter grade according to the following key:

| | | |
|--------------------|------------------|-------------------|
| A+: 90-100% | A: 85-89% | A-: 80-84% |
| B+: 76-79% | B: 72-75% | B-: 68-71% |
| C+: 64-67% | C: 60-63% | C-: 55-59% |
| D: 50-54% | F: 0-49% | |

Because you are earning a degree at a highly reputable post-secondary institution, the criteria for success are high. The Faculty of Arts offers the following guidelines that broadly characterize the kind of work that is generally associated with the grade ranges. These characteristics help put the Psychology Department grading policies into perspective. Please note that adequate performance is in the C range.

A Range: Exceptional Performance. Strong evidence of original thinking; good organization in written work; capacity to analyze (i.e., break ideas down) and to synthesize (i.e., bring different ideas together in a coherent way); superior grasp of subject matter with sound critical evaluations; evidence of extensive knowledge base.

B Range: Competent Performance. Evidence of grasp of subject matter; some evidence of critical capacity and analytic ability; reasonable understanding of relevant issues; evidence of familiarity with the literature.

C-D Range: Adequate Performance. Understanding of the subject matter; ability to develop solutions to simple problems in the material; acceptable but uninspired work; not seriously faulty but lacking style and vigor.

F Range: Inadequate Performance. Little or no evidence of understanding of the subject matter; weakness in critical and analytical skills; limited or irrelevant use of the literature.

During your time in this course, if you encounter medical, emotional, or other personal problems that affect your attendance or academic performance, please notify us as soon as possible, as well as your Faculty Academic Advising Office. Please refer to the UBC Calendar for a discussion of academic concession. The university accommodates students with disabilities who have registered with CfA. The university also accommodates students whose religious obligations conflict with attendance or scheduled exams.

CENTRE FOR ACCESSIBILITY: UBC is committed to equal opportunity in education for all students including those with documented physical or learning disabilities. If you believe you fall in this category, please visit the CfA website (students.ubc.ca/about/access) to take the necessary steps to ensure that you have every opportunity that you deserve to excel in your studies.

USE OF AI TOOLS: In this course, you are welcome to use generative AI tools (such as ChatGPT) for support with writing, editing, or organizing your work. You should not use AI to generate ideas, arguments, or exam answers; those must reflect your own critical thinking and understanding of the material. If you do use AI, you must acknowledge it clearly (e.g., in a short note at the end of your assignment: *"I used ChatGPT to help with grammar and clarity"*). This policy is consistent with UBC's academic integrity guidelines on generative AI (academicintegrity.ubc.ca). Using AI without disclosure, or in ways that replace your own intellectual work, will be treated as academic misconduct. **Always remember that you will have to write a final exam without AI support.**

ACADEMIC MISCONDUCT: Cheating, plagiarism, and other forms of academic misconduct are very serious concerns of the university, and the Department of Psychology has taken steps to alleviate them. In all cases of suspected academic misconduct, the parties involved will be pursued to the fullest extent dictated by the guidelines of the university. Strong evidence of cheating or plagiarism may result in a zero credit for the work in question. According to the University Act (section 61), the President of UBC has the right to impose harsher penalties including (but not limited to) a failing grade for the course, suspension from the University, cancellation of scholarships, or a notation added to the student's transcript. All graded work in this course, unless otherwise specified, is to be original work done independently by individuals. If you have any questions as to whether what you are doing is even a borderline case of academic misconduct, please consult with us. For details on pertinent University policies and procedures, please see Chapter 5 in the UBC Calendar (students.ubc.ca/calendar) and read the University's Policy 69 (available at universitycounsel.ubc.ca/policies/policy69.html).