

Course Schedule

Important: **ALL TIMES EASTERN** - Please see the [University Policies](#) section of your Course Outline for details.

Below is a tentative reading schedule. I would like to emphasize that this is only a tentative schedule and topics and readings may change as a result of class interest as well as delays due to the occurrence of unexpected events. I will announce any changes that might arise on LEARN, so make sure that you check LEARN on a regular basis.

Week	Readings	Activities and Assessments	Due Date	Weight (%)
Week 1: Introduction and History	Kalat, J. W. (2019). Introduction : Overview and Major Issues (pp. 3-16).			
Week 2: Neurons, Glia, and the Action Potential	Kalat, J. W. (2019). Module 1.1 : The Cells of the Nervous System (pp. 17-27); Module 1.2 : The Nerve Impulse (pp. 28-40).			
Week 3: The Synapse, Drugs, and Toxins	Kalat, J. W. (2019). Module 2.1 : The Concept of the Synapse (pp. 41-49); Module 2.2 : Chemical Events at the Synapse (pp. 50-66).			
Week 4: Neuroanatomy Part 1	Kalat, J. W. (2019). Module 3.1 : Structure of the Vertebrate Nervous System (pp. 67-72, 79-80).	Test 1	Saturday, October 2, 2021 at 12:00 PM (NOON)	24%
Week 5: Neuroanatomy Part 2 and	Kalat, J. W. (2019). Module 3.1 : Structure of the Vertebrate Nervous System (pp. 72-79); Module 3.2 : The Cerebral Cortex (pp. 82-90)			

Reading Week (Saturday, October 9, 2021 to Sunday, October 17, 2021)

Week 6: Methods Part 2 and Neurodevelopment	Kalat, J. W. (2019). Module 3.3: Research Methods (pp. 91-102); Module 4.2: Development of the Brain (pp. 117-135).			
Week 7: Plasticity	Kalat, J. W. (2019). Module 4.3: Plasticity after Brain Damage (pp. 136-146).	Test 2	Saturday, October 30, 2021 at 12:00 PM (NOON)	24%
Week 8: Vision	Kalat, J. W. (2019). Module 5.1: Visual Coding (pp. 147-161); Module 5.2: How the Brain Processes Visual Information (pp. 162-176).			
Week 9: Audition and Temperature, Touch, and Pain	Kalat, J. W. (2019). Module 5.3: Parallel Processing in the Visual Cortex (pp. 177-186); Module 6.1: Audition (pp. 187-198); Module 6.2: The Mechanical Senses (pp. 199-210).			
Week 10: Sleep	Kalat, J. W. (2019). Module 8.1: Rhythms of Waking and Sleeping (pp. 257-267); Module 8.2: Stages of Sleep and Brain Mechanisms (pp. 268-279).	Test 3	Saturday, November 20, 2021 at 12:00 PM (NOON)	24%
Week 11: Emotion and Mood Disorders	Kalat, J. W. (2019). Module 11.1: What is Emotion (pp. 351-361); Module 11.2: Attack and Escape Behavior (pp. 362-375); Module 14.2: Mood Disorders (pp. 468-479).			
Week 12: Memory and Learning	Kalat, J. W. (2019). Module 12.1: Learning, Memory and Memory Loss (pp. 383-394); Module 12.2: The Hippocampus and the Striatum (pp. 395-404); Module 12.3: Storing Information in the Nervous System (pp. 405-413).	Sona Participation and Research Experience Marks	Tuesday, December 7, 2021 at 12:00 PM (NOON)	4%
		Test 4	Tuesday, December 7, 2021 at 12:00 PM	24%

There is no final examination for this course

Contact Information

Announcements

Your instructor uses the **Announcements** widget on the **Course Home** page during the term to communicate new or changing information regarding due dates, instructor absence, etc., as needed.

You are expected to read the announcements on a regular basis.

To ensure you are viewing the complete list of announcements, you may need to click **Show All Announcements**.

Contact Us

Who and Why	Contact Details
<p>Instructor and TAs</p> <ul style="list-style-type: none"> Course-related questions (e.g., course content, deadlines, assignments, etc.) Questions of a personal nature 	<p>Questions can be directed to your instructor or your TA.</p> <p>Instructor: Roxane Itier ritier@uwaterloo.ca</p> <p>TA: Zora Chen z439chen@uwaterloo.ca</p> <p>TA: Yadurshana Sivashankar ysivasha@uwaterloo.ca</p> <p>Your instructor checks email frequently and will make every effort to reply to your questions within 24–48 hours, Monday to Friday.</p> <p>learnhelp@uwaterloo.ca</p>
<p>Technical Support, Centre for Extended Learning</p> <ul style="list-style-type: none"> Technical problems with Waterloo 	<p>Include your full name, WatIAM user ID, student number, and course name and number.</p>

[IST Knowledge Base: For Students](#)

[Student Resources](#)

extendedlearning@uwaterloo.ca

Learner Support Services,
Centre for Extended Learning

- General inquiries
- WatCards (Student ID Cards)
- Examination information

Include your full name, WatIAM user ID, student number, and course name and number.

Course Description and Learning Outcomes

Course Description

This course is an introduction to the physiology of the brain and to the scientific study of how the brain is involved in perception, cognition, emotion and behaviour. Although the focus will be primarily on the human brain, various animal models and analogs will also be discussed. Topics that will be covered include the history of physiological psychology, research methods, neural function, neuroanatomy, psychopharmacology, the senses (e.g., vision), memory, emotion, sleep, attention, consciousness and mental disorders (e.g., mood disorders). The studies discussed will include both classic work as well as current cutting-edge research.

The main content of the course will be delivered online via the Learn portal. Each week you will view video lectures read specific sections of the assigned textbook. It is very important that you both view the lectures and study the textbook. Although there will be some overlap between the video lectures and the textbook readings, there will be material that does not overlap. You are responsible for all of the material covered in the video lectures and in the assigned readings.

Learning Outcomes

This course will do the following:

- Expose you to various historical perspectives on physiological psychology;
- Familiarise you with the theoretical and philosophical underpinnings of physiological psychology;
- Introduce you to the methods used to explore the brain and the links between mind and brain; and
- Teach you about the physiological mechanisms underlying human sensory and perceptual systems
- Provide you with insights into the basic physiological and mechanisms involved in behaviour, cognition, emotion and consciousness.

About the Course Author

Course Author — Dr. Daniel Smilek

Educational Background

Dr. Daniel Smilek is a Professor of Cognitive Neuroscience in the Department of Psychology at the University of Waterloo. He completed his undergraduate studies at McMaster University (Hamilton, Ontario, Canada), his graduate work at the University of Waterloo (Waterloo, Ontario, Canada), and a postdoctoral fellowship at the University of British Columbia (Vancouver, British Columbia, Canada). He has been a faculty member at the University of Waterloo since 2004.

Current Research

Dr. Smilek's research focuses on elucidating the cognitive and brain mechanisms that underlie human attention, emotion and vision. In his most recent work he and his students explore various states of attention, including attentional failures, mind wandering, media multitasking, and flow. Dr. Smilek and his research team conduct studies in the laboratory but also in real world contexts. Dr. Smilek has co-authored over 150 peer-reviewed scientific papers, some of which have appeared in top journals, including *Nature*, *Psychological Science* and *Psychological Bulletin*. He is also the co-author on a Canadian textbook on Cognition.

Philosophy of Teaching

Dr. Smilek believes that different teaching styles and learning objectives are suitable for different levels of learning. During broad second-year introductory courses, such as this course on Physiological Psychology, learning should focus primarily on absorbing and retaining foundational facts and ideas in the field. Students are always encouraged to engage with the material thoughtfully and critically.

Materials and Resources

Textbook(s)

Required

- 1 Kalat, J. W. (2019). Biological Psychology, 13th Edition. Cengage Learning, Inc.

For textbook ordering information, please contact the [W Store | Course Materials + Supplies](#).

For your convenience, you can compile a list of required and optional course materials through [BookLook](#) using your Quest userID and password. If you are having difficulties ordering online and wish to call the Waterloo Bookstore, their phone number is +1 519-888-4673 or toll-free at +1 866-330-7933. Please be aware that textbook orders **CANNOT** be taken over the phone.

Resources

- Library services for [Co-op students on work term and students taking online courses](#)

Grade Breakdown

The following table represents the grade breakdown of this course.

Activities and Assessments	Weight
Test 1	24%
Test 2	24%
Test 3	24%
Test 4	24%
Participation in SONA Experiments	4%

Official Grades

Official Grades and Academic Standings are available through [Quest](#) .

Course and Department Policies

Course Policies

Missed Tests

If a student misses a test, the student will receive a score of 0% on the test unless the student provides a valid Verification of Illness Form (VIF) or provides the instructor with a valid reason for missing the test well in advance of the test date (at least two days in advance).

Department Policies

Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility. See the [Office of Academic Integrity webpage](#) for more information.

Discipline

A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. Check [the Office of Academic Integrity](#) for more information. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties check [Guidelines for the Assessment of Penalties](#).

Concerns about a Course Policy or Decision

Informal Stage. We in the Psychology Department take great pride in the high quality of our program and our instructors. Though infrequent, we know that students occasionally find themselves in situations of conflict with their instructors over course policies or grade assessments. If such a conflict arises, the Associate Chair for Undergraduate Affairs (Richard Eibach) is available for consultation and to mediate a resolution between the student and

Grievance

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4. When in doubt, please be certain to contact Richard Eibach, the Associate Chair for Undergraduate Affairs who will provide further assistance; reibach@uwaterloo.ca.

Appeals

A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 - Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72 - Student Appeals](#) .

Note for Students with Disabilities

The [AccessAbility Services](#) office, located on the first floor of the Needles Hall extension (NH 1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

Accommodation for Course Requirements for Psychology Courses

Policies of the Psychology department pertaining to course requirements are available on the department website.

Mental Health Services

Mental Health Services aim is to provide holistic programming and services to help you lead a healthy and balanced life. We strive to provide a secure, supportive environment for students of all orientations and backgrounds. 4 Students suffering from problems with anxiety, depression, problems with sleep, attention, obsessions or compulsions, relationship difficulties, severe winter blues, etc., may make an appointment by phone or in person. Appointments are usually available within two days of initial contact with one of our medical doctors. All contacts are completely confidential.

Contact Health Services

Health Services Building

- Call 1-866-797-0000 for free 24/7 advice from a health professional

Contact Counselling Services

Needles Hall Addition, NH 2401

- Call 519-888-4567 x 32655 to schedule an appointment
- counserv@uwaterloo.ca

University Policies

Submission Times

Please be aware that the University of Waterloo is located in the **Eastern Time Zone** (GMT or UTC-5 during standard time and UTC-4 during daylight saving time) and, as such, the time that your activities and/or assignments are due is based on this zone. If you are outside the Eastern Time Zone and require assistance with converting your time, please try the [Ontario, Canada Time Converter](#) .

Accommodation Due to Illness

If your instructor has provided specific procedures for you to follow if you miss assignment due dates, term tests, or a final examination, adhere to those instructions.

Otherwise:

Missed Assignments/Tests/Quizzes

Contact the instructor as soon as you realize there will be a problem, and preferably within 48 hours, but no more than 72 hours, have a medical practitioner complete a [Verification of Illness Form](#) .

Email a scanned copy of the Verification of Illness Form to your instructor. In your email to the instructor, provide your name, student ID number, and exactly what course activity you missed.

Further information regarding Management of Requests for Accommodation Due to Illness can be found on the [Accommodation due to illness](#) page.

Missed Final Examinations

Your faculty determines academic accommodation; therefore we advise you to speak with your professor if you anticipate being unable to fulfill academic requirements due to illness or other extenuating circumstances.

Further information about Examination [Accommodations](#) is available in the Undergraduate Calendar.

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect, and responsibility. **If you have not already completed the online tutorial regarding academic integrity you should do so as soon as possible.** Undergraduate students should see the [Academic Integrity Tutorial](#) and graduate students should see the [Graduate Students and Academic Integrity](#) website.

Proper citations are part of academic integrity. Citations in CEL course materials usually follow CEL style, which is based on APA style. Your course may follow a different style. If you are uncertain which style to use for an assignment, please confirm with your instructor or TA.

For further information on academic integrity, please visit the [Office of Academic Integrity](#).

Turnitin

Turnitin.com: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin® in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.

[Turnitin® at Waterloo](#)

Discipline

A student is expected to know what constitutes [academic integrity](#) to avoid committing an academic offence, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration, should seek guidance from the course instructor, academic advisor, or the undergraduate Associate Dean. For information on categories of offences and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties, check [Guidelines for the Assessment of Penalties](#).

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Grievance

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](#) , Section 4. When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.

Final Grades

In accordance with [Policy 46 - Information Management](#) , Appendix A - Access to and Release of Student Information, the Centre for Extended Learning does not release final examination grades or final course grades to students. Students must go to [Quest](#) to see all final grades. Any grades posted in Waterloo LEARN are unofficial.

AccessAbility Services

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Accessibility Statement

The Centre for Extended Learning strives to meet the needs of all our online learners. Our ongoing efforts to become aligned with the [Accessibility for Ontarians with Disabilities Act \(AODA\)](#) are guided by University of Waterloo accessibility [Legislation](#) and policy and the [World Wide Web Consortium's \(W3C\) Web Content Accessibility Guidelines \(WCAG\) 2.0](#) . The majority of our online courses are currently delivered via the Desire2Learn Learning Environment. Learn more about [Desire2Learn's Accessibility Standards Compliance](#) .

Please see the [Guidelines on Use of Waterloo Computing and Network Resources](#) .

Copyright Information

UWaterloo's Web Pages

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Other Sources

Respect the copyright of others and abide by all copyright notices and regulations when using the computing facilities provided for your course of study by the University of Waterloo. No material on the Internet or World Wide Web may be reproduced or distributed in any material form or in any medium, without permission from copyright holders or their assignees. To support your course of study, the University of Waterloo has provided hypertext links to relevant websites, resources, and services on the web. These resources must be used in accordance with any registration requirements or conditions which may be specified. You must be aware that in providing such hypertext links, the University of Waterloo has not authorized any acts (including reproduction or distribution) which, if undertaken without permission of copyright owners or their assignees, may be infringement of copyright. Permission for such acts can only be granted by copyright owners or their assignees.

If there are any questions about this notice, please contact the University of Waterloo, Centre for Extended Learning, Waterloo, Ontario, Canada, N2L 3G1 or extendedlearning@uwaterloo.ca .