



PSYCHOL 2221A (570)
Introduction to Biological Basis of Behaviour
Fall/Winter 2026 - 2027

Instructor: Dr. Loretta Norton
Email: lnorton5@uwo.ca

Course Information

Mode of Instruction: in-person

Calendar Description: An introduction to the principles of evolutionary biology, genetics, and physiology in relation to behavior. This course is intended as an introduction to the biological basis of behavior for students who do not have a background in biology.

Prerequisite(s): A mark of at least 60% in 1.0 credits of Psychology at the 1000 level.

Antirequisite(s): [Neuroscience 2000](#), [Psychology 2220A/B](#).

Extra Information: 3 lecture hours.

Course Weight: 0.50

Breadth: Category A

Subject Code: PSYCHOL

Notice: Unless you have either the requisites for this course (fulfilment of pre-requisites, no anti-requisite conflicts), or special permission from your Dean to enrol in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

King's University College
[Psychology 2221A –
Introduction to the Biological Basis of Behavior /Fall 2026]

Course information:

Course Name, Number, Section: Introduction to the Biological Basis of Behavior,
Psychology 2221A, 570
Course Time and Location: please refer to Student Centre website or OWL course site
Instructor: Dr. Loretta Norton, PhD
Contact Information: lnorton5@uwo.ca
Office Hours and Location: held in-person, please refer to OWL course site
OWL course site: <https://westernu.brightspace.com/d2l/login>

Why should students attend office hours? Office hours are a time I set aside in my week to meet with you directly. I enjoy meeting every student in my class. If you have questions about the material in this class or would like to talk about university life, I invite you to come to my office hours. If this time doesn't work, please send me an email and we will find an alternative time. Feel free to stop by to introduce yourself, we can discuss how to develop or sharpen your study skills, review your tests, get help with content or assignments, or talk about ways to cope with university life. I also enjoy hearing from students who are interested in getting involved in research in my lab or I can direct them to others in the field.

Course description: I am excited for you to join me and your fellow students on this journey of learning together as we delve into the topic of biological psychology. This introductory course explores the relationship between the brain, the nervous system, and behaviour. We will explore our neuroanatomy by studying the structure and organization of the nervous system. We will examine the electrical and chemical processes within nerve cells and how they contribute to cognitive functions and behaviours. We will also learn about some of the tools and techniques neuroscientists use to gain insight into the biological basis of behaviour. This course is intended as an introductory course for students who do not have a background in biology.

Course learning outcomes: Course readings, lectures, discussions, in-class activities and assignments are designed to help you:

- Identify the cells that constitute the nervous system and describe how they communicate.
- Demonstrate fundamental knowledge of the anatomical and functional divisions of the nervous system.
- Interpret human behaviour using a biological perspective by describing how the physiology of the nervous system gives rise to simple and complex behaviours.
- Compare and contrast research methods used to investigate the biological mechanisms that govern human behaviour.

- Identify the biological causes, symptoms, and treatments of major neurological and psychological disorders.

Mode of Instruction: This course will be taught in-person.

Course textbooks/materials:

Kalet, J. (2023). *Biological Psychology* (14th ed). Cengage.

The bookstore (<https://bookstore.uwo.ca/textbook-search>) has both a print book and an e-book option. Either option is acceptable for the course. The print textbook is \$186.61 or the E-book rental is \$80.00. Students are welcome to purchase second-hand or earlier editions of this textbook. You do not need any additional courseware associated with the textbook (we will not use MindTap).

Technology requirements: it is expected that you have access to a computer to assess OWL for course-related announcements and the ability to download PowerPoint slides from OWL, see <https://westernu.brightspace.com/d2l/login>. Some in-class labs will require a laptop. Labs are completed in small groups so at least 1 person within the group will need to have a laptop in class to complete the lab tasks. The EEG lab will require someone within the group to have a laptop with Bluetooth capability.

Method of evaluation:

Component	Weight	Due Date
In-class lab assignments (10)	20	Throughout the course due during class time, each is worth 2%
Midterm	40	October 27 th (Academic consideration for midterm test requires submission of formal supporting documentation)
Final Exam	40	TBD; scheduled by the registrar. (Academic consideration for final exam requires submission of formal supporting documentation)

In-Class Assignments: Students will take part in demonstrations of lecture material and laboratory assignments that will be submitted at the end of each class. Each assignment is worth 2%. Instructions for each assignment will be posted on OWL on each class date or handed out in class.

Midterm and Final Exam: The tests will be a mixed format (multiple-choice, T/F, drawing, labelling, matching, short-answer questions). Tests will occur in person and will be paper based. Please bring a pencil and eraser to your test as well as your student card. The tests are **closed book** which means you are **NOT** permitted to consult any external resources for any reason while writing the tests. No external devices may be used. You may not consult with any other person while taking the exam. You should sit apart from any person that you studied with. Scholastic offences during term tests will result in a grade of zero and I will refer the matter to the Chair of the Psychology Department to address any additional penalties. Please note, Friday

Make-Up Exams may only be written with the instructor's consent. The make-up date will be Nov. 6, 2026, unless otherwise stated.

Academic Considerations:

Up to two missed lab assignments can be made up in office hours. These missed in-class labs can only be completed in office hours the week following the absence so all students who were absent can work together to complete. Assignments will not be accepted after 1 week.

There will be 1 make up midterm and exam for those who missed the exam due to illness or otherwise. The makeup midterm and makeup final exam requires formal supporting documentation, and approval must be sought through the academic dean's office. The date of such make up tests is yet to be determined and will be announced to approved students.

Academic Integrity / Remote Proctoring: Within this course, use of generative artificial intelligence (AI) tools (such as ChatGPT, Claude, Gemini, co-pilot, translation tools, and grammar-checking tools) is not permitted for written work submitted for evaluation. Unauthorized use of AI will be subject to academic discipline.

Schedule of Classes, Readings, Assessments:

Subject to change with notice given on OWL

Week	Lecture Topic	Chapter Reading	Lab assignment
Sept 15	Introduction to biological psychology; Nerve Cells	Chapter 1	Nerve Cell Activity
Sept 22	Synapses	Chapter 2	Neurotransmission activity
Sept 29	Neuroanatomy	Chapter 3 Modules 3.1 & 3.2 pgs 64-90	Neuroanatomy bell ringer
Oct 6	Research Methods	Chapter 3 Module 3.3 pgs 91-100	Introduction to EEG
Oct 13	FALL READING WEEK		
Oct 20	MIDTERM		
Oct 27	Development and Plasticity	Chapter 4	TBD
Nov 3	Movement	Chapter 7	Kinesthetic illusions
Nov 10	Vision	Chapter 5	Prism glasses
Nov 17	Emotional Behaviours	Chapter 11	Polygraph demonstration
Nov 24	Learning and Memory	Chapter 12	Long-term Potentiation Activity
Dec 1	Psychological Disorders	Chapter 14	Psychopathology case study

Dec 8	REVIEW		
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Department of Psychology Policies Related to AI Tools

1. Policy on the Use of Generative AI Tools

The Department of Psychology expects that students will submit work that is truly their own, completed without external assistance (human or artificial).

The use of generative AI tools (such as ChatGPT) is not permitted for any submitted coursework unless express permission has been granted by your instructor.

Students **should not have AI tools write any part of their assignments or papers, either by copying and pasting or by paraphrasing the output.** Unauthorized use of AI constitutes an academic offence and will be subject to academic discipline.

Additional information: Students can use AI tools to clarify questions they have about course content (e.g., you can ask ChatGPT about a course concept to help with your understanding), but students should be aware that the response may be inaccurate or inconsistent with the course content. Asking your instructor is a more effective strategy. Students should note that information provided by AI tools such as ChatGPT can include mistakes, inaccuracies, biases, and outdated information. Whenever these tools are used, students should cross-verify the information provided to them. This means verifying that the sources used by AI exist and have been accurately summarized, consulting multiple original and reputable up-to-date sources to verify information, and being cautious of bias that could be present in the information provided.

2. Policy on Use of Translation Tools*

The Department of Psychology views the unapproved use of translation or language applications as an academic offence.

Any usage of translation applications or language generation by students to complete specific assigned work for this course **must be approved** by the instructor **prior** to submitting the work **and noted by the student in the submitted work** itself.

Writing text and then feeding it into a computer application to improve or translate your own words, changing a few words, and then submitting this text as if it was your own **constitutes plagiarism**. You must compose text, choose words, construct logic flow, structure sentences and paragraphs to organize, synthesize, interpret information with your own mind. When you borrow language or ideas from another person or from a machine this must be acknowledged with quotation marks and/or citations.

Why do we have this policy?

- Translation is intellectual work and produces intellectual property, thus any text which is translated must cite the translator.
- Psychology endeavors to advance students' linguistic, analytic, and reasoning competencies – this can not happen outside of specific language competencies.
- Earning a university degree signals that an individual has advanced literacy and communicative skill in the language of instruction at the university; this is English at King's University College at Western University. If translation machines are used by students without regulation, we will have

no way of certifying whether these competencies exist and fewer mechanism for encouraging students to do the hard work to develop them.

** Based on the policy developed by the Department of Child and Youth Studies*

KING'S UNIVERSITY COLLEGE

GENERAL COURSE POLICIES

2026-27

1. Academic Accommodations (Accessibility)

Accessibility Services works to ensure that academic programs are accessible to all students, and supports students who may have a condition related to, but not limited to, vision, hearing, mobility, different ways of learning, mental health, chronic illnesses, chronic pain, autism spectrum disorder, ADD/ADHD, and temporary conditions (beyond short-term academic consideration). Accessibility Services provides recommendations for accommodation based on medical documentation or psychological and cognitive assessment. The accommodation policy can be found at [Academic Accommodation for Students with Disabilities](#). Information on Accessibility Services at King's can be found [here](#).

2. Academic Consideration for Student Absences

Students must be approved to write a makeup exam or for an extension of the assignment deadline. If you need to miss an exam or the deadline for the assignment, please follow these instructions.

There are two ways to seek academic consideration:

(i) Academic consideration based on medical or compassionate grounds

If a student is unable to meet a course requirement due to substantial but temporary extenuating circumstances (medical or compassionate grounds), they should contact the Academic Advising Office. As a rule, documentation is required for academic consideration.

For academic consideration requests on medical grounds, the Student Medical Certificate (SMC) is the appropriate documentation. The SMC is available at <https://registrar.uwo.ca/academics/pdfs/student-medical-certificate.pdf>

- King's students: The Academic Advising Office website is located in DLH 104. The Academic Advising website is <https://mykings.ca/intranet/app/#/academics/academic-advising>.
- If your home faculty is Huron or at Western, please submit your documentation to your faculty's academic counselling office.
- Requests must be made as soon as possible, and no later than 48 hours after the missed assessment.

You may submit requests for academic consideration through the **Student Absence Portal**, linked on this website: <https://mykings.ca/intranet/app/#/academics/academic-advising/academic-consideration-requests-and-student-absence-portal>.

(ii) Academic consideration through an undocumented absence

Students are permitted one academic consideration request without supporting documentation per term per half-course (0.5) weight.

- Note that instructors may designate one assessment per half-course weight as requiring supporting documentation. Please refer to the course outline to confirm this which assessment has been designated as requiring documentation for consideration (that is, exempt from undocumented absences).
- Undocumented absences can not be used as the basis for academic consideration for December or April exams.

If an instructor has built flexibility into their assessments (e.g., “complete 8 of 10 quizzes”), this flexibility will already address consideration needs and thus academic consideration may be denied.

For further information on the academic consideration policy, please see https://uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf

c) Absences from Final Exams

If you miss the Final Exam, **contact your Academic Advising Office** as soon as you are able to do so. They will assess your eligibility to write the “Special Examination” (the name given by the University to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a multiple exam situation (i.e., you are scheduled to write more than 2 exams in 23-hour period, or more than 3 exams in a 47-hour period).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See the Academic Calendar for details (under [Special Examinations](#)).

d) Religious Accommodations

Students should consult the University’s list of recognized religious holidays, and should give notice in writing to the instructor and their Academic Advising Office if a course requirement will be affected by a religious holiday/observance. Notice must be given as early as possible, and no later than two weeks prior to an examination, and one week prior to a midterm test date. It is the responsibility of such students to inform themselves concerning the work done in classes from which they are absent and to take appropriate action.

3. Support Services

Accessibility, Counselling and Student Development at King’s University College:
<https://mykings.ca/intranet/app/#/student-supports-and-services/accessibility-services>

Students experiencing emotional or mental health distress can access services at King’s University College:
<https://kings.uwo.ca/campus-life/student-supports/>

Good2talk is an online and phone resource for students, available 24/7, with services in English, Mandarin, and French: <https://good2talk.ca>, 1-866-925-5454

MentalHealth@Western provides a complete list of options on how to obtain help:

<https://www.uwo.ca/health/mental-health/index.html>

Academic Support Services at King's University College: <https://kings.uwo.ca/academics/academic-supports/>

4. Statement on Gender-Based Sexual Violence

King's and Western are committed to reducing incidents of gender-based sexual violence (GBSV) and providing compassionate support to anyone who is going through or has gone through these traumatic events. If you are experiencing or have experienced GBSV (either recently or in the past), you will find information about support services for survivors, including emergency contacts at the following website: [Mental Health and Wellness at King's](#).

You can reach supports at King's by emailing care@kings.uwo.ca or calling 519-930-4640 to reach a Social Worker who can offer help.

You can also reach Western's Gender-Based Violence & Survivor Support Case Manager by email (health@uwo.ca) or by calling 519-661-3568. Additional support services can be found <https://www.uwo.ca/health/gbsv/support/index.html>

5. Statement on Use of Electronic Devices

Use of Electronic Devices: Unless explicitly stated otherwise, you are not allowed to have a cell phone, or any other electronic device, with you during tests or examinations. Unauthorized possession of such a device during a test or examination constitutes an academic offence.

Use of Laptops, Tablets, and Smartphones in the Classroom: King's University College at Western University acknowledges the integration of new technologies and learning methods into the curriculum. The use of electronic devices such as laptop computers, tablets, or smartphones can contribute to student engagement and effective learning. At the same time, King's recognizes that instructors and students share jointly the responsibility to establish and maintain a respectful classroom environment conducive to learning.

The use of electronic devices by students during lectures, seminars, labs, etc., shall be for matters related to the course at hand only. Students found to be using electronic devices for purposes not directly related to the class may be subject to sanctions under the Student Code of Conduct; see https://kings.uwo.ca/sites/2025/assets/files/campus/Kings_Code_of_Student_Conduct.pdf

Inappropriate use of electronics (e.g., laptops, tablets, smartphones) during lectures, seminars, labs, etc., creates a significant disruption. As a consequence, instructors may choose to limit the use of electronic devices in these settings. In addition, in order to provide a safe classroom environment, students attending in-person class sessions are strongly advised to operate laptops with batteries rather than power cords.

6. Statement on Academic Offences

King's is committed to academic integrity. Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, is posted at https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_offences.pdf

It is expected that students will submit work that is truly their own, completed without external assistance (human or artificial) except as explicitly permitted by the course instructor. **Check with you instructor to check which tools, including generative AI (ChatGPT, translation tools, grammar-checking tools) are permitted in each course.** Note that although some courses may permit the use of such tools, it does not mean use of such tools is permitted in other courses.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system; see <https://elearningtoolkit.uwo.ca/tools/Originality Reports - TurnItIn.html>.

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

7. Copyright of Course Material

Lectures and course materials, including PowerPoint presentations, tests, outlines, and similar materials are protected by copyright. Faculty members are the exclusive owner of copyright in those materials they create. Students may take notes and make copies for their own use. Students may not allow others to reproduce or distribute lecture notes and course materials publicly (whether or not a fee is charged) without the express written consent of a faculty member. Unauthorized sharing of class content is subject to academic discipline.

Similarly, students own copyright in their own original papers and exam essays. If a faculty member wishes to post a student's answers or papers on the course website, they should ask for the student's written permission.

8. Use of Recordings

Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation and/or the participant has the prior written permission of the instructor. Unauthorized recording and/or sharing of class content is subject to academic discipline.

9. Policy on Attendance

Any student who, in the opinion of the instructor, is absent too frequently from class or laboratory periods in any course, will be reported to the Dean of the Faculty offering the course, after due warning has been given. On the recommendation of the department concerned, and with the permission of the Dean of that Faculty, the student will be debarred from taking the regular examination in the course.