

# PSYCHOLOGY 305 Introduction to Comparative Cognition W2026

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## Instructor

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## Course Description

This course introduces the interdisciplinary field of comparative cognition to undergraduate students who have an interest in the evolution and function of cognitive processes across species. The course specifically discusses topics such as memory, navigation, decision-making, theory of mind, prosocial behaviour, and communication through a combination of virtual presentations, textbook reading, and online activities. With successful completion of this course, students will have a fundamental knowledge base that will promote critical thinking outside of the classroom as well as support learning in advanced psychology, biology, and neuroscience courses.

## Learning Outcomes

After successful completion of Psychology 305, students will be able to:

1. Recognize and recall experimental findings that support existing theories in comparative cognition.
2. Apply theories to predict outcomes of experimental manipulations
3. Engage in critical reading of primary and secondary sources
4. Combine critical reading skills and conceptual knowledge of comparative cognition to create a review of experimental findings for a broader audience.

## Course Website

All communication related to this course, including online presentations and activities, quizzes, and grades will be posted on the course website on OnQ. Access to this site is restricted to students who are registered in this course. In addition, course announcements may be sent through Queen's email addresses, so it is important to access your account on a regular basis throughout the term.

## Required Reading

All students should purchase or have access to the following textbook, available through the Queen's campus bookstore or from the publisher:

Olmstead, M.C., & Kuhlmeier, V.A. (2015). *Comparative Cognition*. Cambridge, UK: Cambridge University Press.

Cost (New): ~\$75.95 depending on seller

Cost (Used): ~\$51.71 depending on seller and availability

## Assignments and Evaluation

Quizzes (complete 10 of 12)	10% ( <i>Learning Outcomes 1,2,3</i> )
Activities	20% ( <i>Learning Outcomes 1,2,3,4</i> )
Smartest Animal (2%)	
Effective Writing (5%)	
Measuring Memory (3%)	
Corvid Tool Use (3%)	
Categorization (3%)	
Canine Connections (4%)	
Review Question Prep	10% ( <i>Learning Outcomes 1,2,3,4</i> )
Paper Assignment	20% ( <i>Learning Outcomes 3,4</i> )
Writing Plan (5%)	
Paper (15%)	
Final Exam	40% ( <i>Learning Outcomes 1,2,3,4</i> )

### **QUIZZES 10%**

Each week includes a short online quiz (5 multiple choice questions). Please refer to the course website for when these quizzes become available/unavailable. Once started, a quiz can be completed in 10-15 minutes, but it will stay open for 30 minutes. If a quiz is not submitted after 30 minutes has passed, it will receive a score of zero. Please ensure a good internet connection before starting a quiz. The quizzes are open book and are designed to test knowledge of the textbook reading material for that week. At the completion of the term, the two lowest quiz marks will be dropped, and a final cumulative mark on the remaining 10 quizzes will constitute 10% of the final grade.

## **ACTIVITIES 20%**

The weekly activities (6 in total) involve completing online polls, answering questions, and/or writing commentaries related to the topics covered that week. The activities are designed so that you can apply knowledge from the textbook and online presentations for that week. In some cases, new concepts and skills are introduced so be sure to read through the description for individual assignments before you begin your work. See the Course Overview for specific due dates of these activities.

## **REVIEW QUESTION PREPARATION 10%**

In lieu of a mid-term exam, you will complete an assignment in which you produce sample exam questions based on the ICE acronym (Information, Context, Extension). Specific instructions for completing this assignment are listed under Week 4 of the Course Content and the specific due dates are listed in the Course Overview.

## **PAPER ASSIGNMENT 20%**

This assignment requires you to communicate a scientific finding to the general public. The goal is to translate comparative cognition research into language that is interesting and accessible to a lay audience. Please refer to the Paper Assignment Instructions for more detail and see the Course Overview for specific due dates. The paper is worth 20% of your final grade, divided as follows:

### **WRITING PLAN (5%)**

Each student will prepare a Writing Plan for their paper that is due later in the term. (See the course website for specific dates.) The writing plan should include the subject of the paper as well as an outline for the main topics to be discussed. Read the Paper Assignment information in the Course Content, as well as the Writing Plan Format, for specific requirements of this assignment.

### **PAPER (15%)**

Each paper will be assessed by the TA and/or instructor, using the criteria for successful popular science writing, as discussing in Week 2.

## **FINAL EXAM 40%**

All students are required to complete a final exam, worth 40% of their final mark, which will be scheduled during the end of term exam period. The final exam material will cover the entire course, with questions based the assigned textbook reading, the assignments, and the online course content. The exam will include multiple-choice and both short answer (approximately 1 paragraph of 3-5 sentences) and long answer (approximately 2-4 paragraphs) questions.

## Academic Integrity

Queen's students, faculty, administrators and staff all have responsibilities for upholding the fundamental values of academic integrity; honesty, trust, fairness, respect, responsibility and courage (see [www.academicintegrity.org](http://www.academicintegrity.org)). These values are central to the building, nurturing and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University (see the Senate Report on Principles and Priorities (<http://www.queensu.ca/secretariat/policies/senate/report-principles-and-priorities>)).

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments and their behaviour conform to the principles of academic integrity. Information on academic integrity is available in the Arts and Science Calendar (see Academic Regulation 1 (<http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations/regulation-1>)), on the Arts and Science website (see <https://www.queensu.ca/artsci/students-at-queens/academic-integrity>), and from the instructor of this course. Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

**THE USE OF GENERATIVE AI TOOLS (e.g., Chat GPT).** In this course, using AI to write or complete any part of your assignments (e.g., Quizzes, Activities, Review Questions, Paper Assignment, Summative Activity, and Final Exam) for you **is a departure from academic integrity**. An easy rule to follow is to not copy anything from an AI tool into your assignments. This doesn't avoid every problem, but if you want a simple rule to follow, it's a good starting point.

## Turnitin Statement

This course makes use of Turnitin, a third-party application that helps maintain standards of excellence in academic integrity. Normally, students' written work will be entered into Turnitin. In doing so, students' work will be included as source documents in the Turnitin reference database, where they will be used solely for the purpose of detecting plagiarized text in this course. Data from submissions is also collected and analyzed by Turnitin for detecting Artificial Intelligence (AI)-generated text. These results are not reported to your instructor at this time but could be in the future.

Turnitin is a suite of tools that provide instructors with information about the authenticity of submitted work and facilitates the process of grading. The similarity report generated after an assignment file is submitted produces a similarity score for each assignment. A similarity score is the percentage of writing that is similar to content found on the internet or the Turnitin extensive database of content. Turnitin does not determine if an instance of plagiarism has occurred. Instead, it gives instructors the information they need to determine the authenticity of work as a part of a larger process.

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## Grade Conversion

All components of this course will receive numerical percentage marks. The final grade you receive for the course will be derived by converting your numerical course average to a letter grade according to Queen's Faculty of Arts and Science Official Grade Conversion Scale:

Grade	Numerical Course Average Grade (Range)
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59
D	53-56
D-	50-52
F	49 & below

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 1 Jan. 5	Week 1 Introduction  Chapter 1	History of Comparative Cognition	Quiz #1 Open: Mon. 9:00a Close: Sun. 11:59p	Poll/Commentary: What is the smartest animal? (Due Monday, Jan. 19th, 2pts.)  Introduce yourself in Student Cafe

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 2 Jan. 12	Week 2 Introduction  Chapter 2	Sensory Systems	Quiz #2 Open: Mon. 9:00a Close: Wed. 11:59p	Effective Science Writing (Due Monday, Jan. 19th, 5pts.) - Read document on science writing - Read examples of science writing - Submit commentary - Read about the paper assignment

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 3 Jan. 19	Week 3 Introduction  Chapter 3	Memory	Quiz #3 Open: Mon. 9:00a Close: Wed. 11:59p	Measuring Memory (Due Monday, Jan. 26th, 3pts.) - Read the Activity Instructions - Complete the N-back memory tasks - Submit commentary

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 4 Jan. 26	Week 4 Introduction  Chapter 4	Associative Processes	Quiz #4 Open: Mon. 9:00a Close: Wed. 11:59p	Writing 'Exam' Questions (Due Monday, Feb. 9th, 10pts.) - Read about ICE - Read the Instructions - Work on your questions (Submit via Week 5)

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 5 Feb. 2	Week 5 Introduction  Chapter 5	Orientation and Navigation	Quiz #5 Open: Mon. 9:00a Close: Thurs. 11:59p	Writing 'Exam' Questions (Continued) (Due Monday, Feb. 9th, 10pts.) - Submit your questions

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 6 Feb. 9	Week 6 Introduction  Chapter 8	Causality and Tool Use	Quiz #6 Open: Mon. 9:00a Close: Wed. 11:59p	Corvid Tool Use (Due Monday, Feb. 23rd, 3pts.) - Read Instructions - Watch videos - Submit commentary

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 7 Feb. 23	Week 7 Introduction  Chapter 7	Decision Making	Quiz #7 Open: Mon. 9:00a Close: Wed. 11:59p	Writing Plan for Paper Assignment (Due Mon. Mar. 2nd, 5pts.) - Submit your Writing Plan

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 8 Mar. 2	Week 8 Introduction  Chapter 9	Categorization and Concept Formation	Quiz #8 Open: Mon. 9:00a Close: Wed. 11:59p	Measuring Categorization (Due Monday, Mar. 9th, 3pts.) - Read Activity Introduction - Complete Categorization Tasks - Submit Commentary

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 9 Mar. 9	Week 9 Introduction  Chapter 10	Social Competence	Quiz #9 Open: Mon. 9:00a Close: Wed. 11:59p	Canine-Human Connection (Due Monday, Mar. 16th, 4pts.) - Read Instructions - Watch Video 1 - Watch Video 2 - Submit Commentary

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 10 Mar. 16	Week 10 Introduction  Chapter 11	Prosocial Behaviour	Quiz #10 Open: Mon. 9:00a Close: Wed. 11:59p	Paper (Due Monday, Mar. 23rd, 15pts.) - Submit your Paper

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 11 Mar. 23	Week 11 Introduction  Chapter 12	No Presentation this week	Quiz #11 Open: Mon. 9:00a Close: Wed. 11:59p	No activity this week

WEEK	READINGS	PRESENTATION	QUIZ	ACTIVITY
Week 12 Mar. 30	Week 12 Introduction  Chapter 13	Social Learning	Quiz #12 Open: Mon. 9:00a Close: Wed. 11:59p	No activity this week. Study for the final exam.