PSY362H5F - Animal Cognition
Friday 9:00am – 12:00pm
Online Synchronous

Course Delivery

ONLINE VIA ZOOM / QUERCUS: This course will be taught using a combination of asynchronous and synchronous elements. Short lecturettes or media material will be posted in Quercus as ‘asynchronous’ learning modules. This means that short videos will be posted, and you will be able to access the content at your own pace. This material is complimentary to the synchronous component, but you are equally responsible for all asynchronous content. Synchronous sessions will be delivered online through ZOOM. The zoom link will be posted on the course Quercus page. To access the link, you will have to do so using a zoom account associated with your utoronto mail address. Please register for UTM Zoom account using your UTORid and password before the semester starts (Web portal login: https://utoronto.zoom.us). Synchronous lectures will be recorded and posted online and made available through the course Quercus page. Each week the combination of asynchronous and synchronous material will amount to 3 hours total lecture time. A term test and the final exam will be administered online through Quercus quiz. Please check the course Quercus page for more details.

Learn Anywhere Guide for Students
https://library.utm.utoronto.ca/students/quercus/learn-anywhere
University of Toronto tech requirements for online learning

Contact Information
Course Instructor: Dr. Alexandra Hernandez
email: a.hernandez@utoronto.ca
Teaching Assistant: Emma Mannan
email: emma.mannan@mail.utoronto.ca

Office hours: Virtual via Zoom
Fridays 12:00 – 1:00 pm

Prof. Hernandez will meet with students via zoom, which will include a ‘virtual waiting room’ so that students can have private meetings. Students can also schedule individual office hours (also to be held via zoom) with the TA. The zoom session may be closed if no one is there in the first 15 min; send an email prior to the office hour if you are unable to join at the start and do plan to attend.

Be sure to register for a UTM Zoom account at https://utoronto.zoom.us
Email Policy

E-mail should not be seen as an alternative to attending office hours with your TA or instructor, and questions that could benefit others and should be asked in class or posted to the appropriate discussion board on the course website. E-mails should be used when questions are of a personal nature. E-mails regarding class material should be directed to your TA, who may choose to forward difficult inquiries on to the Instructor. E-mail should not be seen as an alternative to meeting with the instructor (or the TA). Nor should e-mail be used as a mechanism to receive private tutorials (especially prior to tests) or to explain material that was covered in lectures you missed. E-mails need to come from an utoronto account. When emailing, please include “PSY362” and the topic of your email in the subject line. You should also include your full name, the course name, and your student ID in the body of the message. We will try to respond to all emails within 2 business days.

Course Description

A comparative survey of cognitive processes in animals from an ecological and evolutionary perspective. The course will examine topics including perception, working and reference memory, simple associative and complex relational learning, and concept formation. Exclusion: PSY362H1

Learning Outcomes

By the end of this course, students should be able to;

- Recognize and recall experimental findings that support or do not support existing theories in animal cognition.
- Apply theories to predict outcomes of experimental manipulations.
- Interpret and critically analyze experimental findings and design.
- Engage in critical reading of primary and secondary sources.
- Combine critical reading skills and conceptual knowledge of animal cognition to create a review of experimental findings for a broad audience.

Reading Material

Comparative Cognition (clickable link)
Mary C. Olmstead
Valerie A. Kuhlmeier
ISBN: 9781316190548

Readings: Students are encouraged to read the assigned chapters before each lecture as this will facilitate and extend their knowledge acquired in class. You should pay close (but not exclusive) attention to the material that overlaps with the lecture material.

Course Evaluation

1. Post-Lecture Questions (10%) (10 lectures x 1% each)
2. Group Discussion Presentation (10 %)
3. Research Thought Paper (10%) (Due prior to the last class - December 3rd)
4. Midterm Exam (30%)
5. Final Exam (40%) (The cumulative final exam will cover all lectures, associated readings and media associated with the course.)
**Post-Lecture Questions:** In order to help students learn the course material, support students in staying on track throughout the term, encourage deeper processing of information, and enable students to gain practice with exam-type questions, students will submit via email to the instructor a multiple choice or a short answer question relevant to a topic covered that week in the lecture. You must also include the answer to the question. You must submit the question and answer any time during the subsequent week, prior to the start of the next class. Please ensure that you include the following in the subject line in your email to the instructor: “Exam Question – Lecture <insert Lecture # according to the timetable below>“, and include your lastname, firstname, and student number in the body of the text along with the question and answer. DO NOT include any additional content in the email. Note – there are 11 lectures in total and only 10 questions will go towards your final grade (each worth 1% of your final grade). You may submit post-lecture questions after any 10 of the 11 lectures. If you submit 11 questions, your top 10 scores will be taken towards your final grade.

**Post-Lecture Question Marking Scheme:**

This table will be used to evaluate each of the post-lecture questions and answers you submit.

<table>
<thead>
<tr>
<th>Area</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarity</td>
<td>Very Poor</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>Accuracy</td>
<td></td>
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</table>

As additional incentive to writing a well thought out and accurate question, is that your question may appear on the midterm or final exam. The instructor may also post some questions to the discussion board for review prior to the midterm and/or final. You will be given 1 bonus mark on your final grade for each of your questions that are used to stimulate discussion on the board or that appear on the midterm or final, with a maximum of 2 bonus marks on your final grade. The question must appear exactly as you wrote it in order to receive credit. Your name will not be posted with the question, but you will receive an email acknowledgement and if you agree in an email response you will receive a “shout out” during the final lecture.

**Group Discussions:** In order to provide students exposure to research and the opportunity to integrate concepts learned in the lecture, students will be asked to read articles and/or watch videos and participate in small group discussions relating to research in animal cognition. There will be five marked group discussion sessions (see timeline below for dates) held in the last hour of class on the scheduled days. Students are expected to come prepared to discuss the material posted. The class will be divided into small groups of 4-5 students in breakout rooms on Zoom. Each group will decide on a note-taker to keep track of key points discussed and a presenter to share the key points with the class (the same person may be selected to serve in both roles).

The questions you will use to guide your small group discussion each session are as follows:

1. What is the behaviour under consideration?
2. Is this behaviour unique to this species?
3. Is a comparable behavior found in everyday human life?
4. What is the cause of the behaviour?
5. How could you test this hypothesis?

These questions are meant to guide your discussions, and you can choose how they inform what you share with the class. You could decide to tackle one and/or all the questions, depending on what time permits and/or the direction of the discussion.
The small discussion groups will be predetermined by the professor, and you will remain in these groups for all group discussions and breakout rooms in the course. Following 30-min breakout room discussions, 3 groups will be asked to present their ideas to the class.

The TA and/or Instructor present will mark your groups overview presentation to the class as shown below; all group members will receive the same grade.

**Group Discussion Presentation Marking Scheme:**

This table will be used to evaluate your groups overview of your small groups discussion to the class.

<table>
<thead>
<tr>
<th>Area</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of the topic gained from readings and materials; includes demonstrating an understanding, accuracy, providing adequate background.</td>
<td>Area</td>
</tr>
<tr>
<td>Integration of concepts from course and critical thinking; referring to concepts, ideas, or studies from textbook readings and lectures, relevant, stimulating/creative discussion points.</td>
<td>Area</td>
</tr>
<tr>
<td>Communication, Clarity and Organization; includes introducing problem and discussion points, i.e. provides structure, appropriate length, logical order, conclusion/summary.</td>
<td>Area</td>
</tr>
</tbody>
</table>

In addition to sharing the key points discussed by your group, each group should come up with one question that they would like to ask the class in a pole following their overview presentation of your groups, this will serve to help stimulate interactivity.

We will test the breakout rooms to get a feel for the platform and meet each other prior to our first scheduled marked discussion group. At this pilot session, your task will be to come up with a name for your group.

**Research Thought Paper:** In order to provide students the opportunity to think more deeply about readings and/or videos and the ideas stimulated through small group discussions. Students will submit a 2-page thought paper anytime prior to the final class. Each student will independently come up with a question of interest that they could test, and propose a research study to test the question. The question should stem directly from the readings and/or videos watched on the day your group presented an overview of their discussion to the class. Be sure to include enough background to understand the origins of the question, why it is of interest or important to understand (either from a practical or a theoretical perspective), your hypothesis, what methods you will use to test the question, what data you will collect, what you predict you will find (you may show a graphic of how you expect the results to look), and provide a summary of your conclusions and next steps. The use of subtitles is encouraged to support organization and clarity. You must include a header that states your last name, first name, and student number. You must also include a references section on page 3 that includes the reference to the articles and/or videos. You must use American Psychological Association (APA) format for intext citations and in the reference section. This is an important aspect of academic writing and will be marked.
Research Thought Paper Marking Scheme:

This table will be used to evaluate your groups overview of your small groups discussion to the class.

<table>
<thead>
<tr>
<th>Area</th>
<th>1 Very Poor</th>
<th>2 Poor</th>
<th>3 Fair</th>
<th>4 Good</th>
<th>5 Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background knowledge of the topic gained from readings and materials evidence, and logically connected to research question</td>
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<tr>
<td>Research question relevant and novel, and importance stated</td>
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<td></td>
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<tr>
<td>Methods described sufficiently for clarity and methods selected appropriate</td>
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<tr>
<td>Expected results clear and logical</td>
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<tr>
<td>Final discussion/summary and next steps follow appropriately and are thoughtful</td>
<td></td>
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<tr>
<td>Organization, effective structure, appropriate length, logical order, concisely written, appropriate format (apa), proof read.</td>
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</table>

The mid-term test and final exam will be based on the material from posted media material, lectures and assigned readings. The mid-term test and the final exam will consist of multiple-choice questions, and shorter / longer essay questions and will be completed on QUERCUS.

The shorter and longer questions will require students to recite information but also integrate knowledge analytically. The final exam WILL BE CUMULATIVE, i.e., the questions will ask you to consider material learned from the very beginning of the class albeit more weight will be given towards material not tested during the term test.

Course Webpage

The website associated with this course is accessible via http://q.utoronto.ca

Note: You don't need to create a new login for Canvas; it already knows who you are. You just need your UTORid and password. This is the same login that gets you onto the wireless network with your laptop, and the same one that you use to check your email. If you're confused about your UTORid or don't remember your password, go to: https://www.utorid.utoronto.ca/

IMPORTANT COURSE POLICIES  **PLEASE READ**

Missed Test Special Consideration Request Process

Students who miss a test due to circumstances beyond their control (e.g. illness or an accident) can request that the Department grant them special consideration. Students must present their case to the Department (NOT the Instructor) by submitting a request via the online Special Consideration Request form at: https://utmapp.utm.utoronto.ca/SpecialRequest.
Important note: Once the test/exam is available online and you’re unable to write or have an approved request to miss, DO NOT at any point attempt to access the test/exam. If at any time you access the test/exam, you will NOT be able to submit a special consideration and/or your request will be refused.

If your request is approved by the department, the weight of the missed test will be redistributed to the final exam.

Extension of Time Special Consideration Request Process
Students who seek to be granted more time to complete their term work beyond the due date without penalty, owing to circumstances beyond their control (e.g., illness, or an accident), must do so by submitting a request directly to the Instructor for the period up to and including the last day of the term. The decision as to whether or not to apply a penalty for the specified period rests with the Instructor.

Students who seek to be granted more time to complete term work beyond the last day of the term must submit their request directly to the Department. This request covers the period following the last day of classes and ends the last day of the exam period. This is done by submitting a request via the online Special Consideration Request form at https://utmapp.utm.utoronto.ca/SpecialRequest. You are advised to seek advising by the departmental Undergraduate Counsellor prior to the deadline.

Supporting Documentation
The University is temporarily suspending the need for a doctor’s note or medical certificate for any absence from academic participation. However, you are required to use the Absence Declaration tool on ACORN found in the Profile and Settings menu to formally declare an absence from academic participation. The tool is to be used if you require consideration for missed academic work based on the procedures specific to our campus/department.

Missed Final Exam or Extension of Time beyond exam period
Missed final exams or for extensions of time beyond the examination period you must submit a petition through the Office of the Registrar. http://www.utm.utoronto.ca/registrar/current-students/petitions and follow their procedures.

Penalties for Lateness
A penalty of 10% per calendar day (i.e., including week-ends and holidays, during which students are not able to submit term work) up to and including the last day of classes, will be applied by the Instructor. After the last day of classes, the penalty of 10% per calendar day will be applied by the Undergraduate Counsellor on behalf of the Department. No penalty will be assigned if request for special consideration, described above, was successful.

Use of Ouriginal
Normally, students will be required to submit their course assignments to the University’s plagiarism detection tool website for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their material to be included as source documents in the University’s plagiarism detection tool reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University’s use of the University’s plagiarism detection tool service are described on the company web site.

Academic Guidelines
It is your responsibility to ensure that you have met all prerequisites listed in the UTM Calendar for this course. If you lack any prerequisites you WILL BE REMOVED from the course up until the last day to add a course. Further information about academic regulations, course withdrawal dates and credits can be found in the University of Toronto Mississauga Calendar at: http://www.erin.utoronto.ca/regcal/.

You are encouraged to read this material. If you run into trouble and need advice about studying, preparing for exams, note taking or time management, free workshops and advice are available from the Robert Gillespie Academic Skills Centre at 905-828-5406.
AccessAbility Services
The University provides academic accommodations for students with disabilities in accordance with the terms of the Ontario Human Rights Code. This occurs through a collaborative process that acknowledges a collective obligation to develop an accessible learning environment that both meets the needs of students and preserves the essential academic requirements of the University’s courses and programs. Students requiring academic accommodations for learning, physical, sensory, or mental health disabilities or medical conditions should contact the AccessAbility Office (2037B Davis Building), 905-828-3847. [http://www.utm.utoronto.ca/accessability/]

Privacy and Copyright Disclaimer
Notice video recording and sharing (Download and re-use prohibited)
This course, including your participation, will be recorded on video and will be available to students in the course for viewing remotely and after each session. Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation, and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor. For questions about recording and use of videos in which you appear please contact your instructor.

Lectures and course materials prepared by the instructor are considered by the University to be an instructor’s intellectual property covered by the Copyright Act, RSC 1985, c C-42. Course materials such as PowerPoint slides and lecture recordings are made available to you for your own study purposes. These materials cannot be shared outside of the class or “published” in any way. Posting recordings or slides to other websites without the express permission of the instructor will constitute copyright infringement.

Academic Honesty and Plagiarism
Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto Mississauga is a strong signal of each student’s individual academic achievement. As a result, UTM treats cases of cheating and plagiarism very seriously.

The University of Toronto’s Code of Behaviour on Academic Matters outlines behaviours that constitute academic dishonesty and the process for addressing academic offences. Potential offences include, but are not limited to:

In papers and assignments:

1. Using someone else’s ideas or words without appropriate acknowledgement.
2. Submitting your own work in more than one course without the permission of the instructor.
3. Making up sources or facts.
4. Obtaining or providing unauthorized assistance on any assignment.

On tests and exams:

1. Using or possessing unauthorized aids.
2. Looking at someone else’s answers during an exam or test.
3. Misrepresenting your identity.

In academic work:

1. Falsifying institutional documents or grades.
2. Falsifying or altering any documentation required, including (but not limited to) doctor’s notes.

With regard to remote learning and online courses, UTM wishes to remind students that they are expected to adhere to the Code of Behaviour on Academic Matters regardless of the course delivery method. By offering students the opportunity to learn remotely, UTM expects that students will maintain the same academic honesty and integrity that they would in a classroom setting. Potential academic offences in a digital context include, but are not limited to:
Remote assessments:

1. Accessing unauthorized resources (search engines, chat rooms, Reddit, etc.) for assessments.
2. Using technological aids (e.g., software) beyond what is listed as permitted in an assessment.
3. Posting test, essay, or exam questions to message boards or social media.
4. Creating, accessing, and sharing assessment questions and answers in virtual “course groups.”
5. Working collaboratively, in-person or online, with others on assessments that are expected to be completed individually.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources.

Academic Rights

You, as a student at UTM, have the right to:

- Receive a syllabus by the first day of class.
- Rely upon a syllabus once a course is started. An instructor may only change marks’ assignments by following the University Assessment and Grading Practices Policy provision 1.3.
- Refuse to use turnitin.com (you must be offered an alternative form of submission).
- Have access to your instructor for consultation during a course or follow up with the department chair if the instructor is unavailable.
- Ask the person who marked your term work for a re-evaluation if you feel it was not fairly graded. You have up to one month from the date of return of the item to inquire about the mark. If you are not satisfied with a re-evaluation, you may appeal to the instructor in charge of the course if the instructor did not mark the work. If your work is remarked, you must accept the resulting mark. You may only appeal a mark beyond the instructor if the term work was worth at least 20% of the course mark.
- Receive at least one significant mark (15% for H courses, 25% for Y courses) before the last day you can drop a course for H courses, and the last day of classes in the first week of January for Y courses taught in the Fall/Winter terms.
- Submit handwritten essays so long as they are neatly written.
- Have no assignment worth 100% of your final grade.
- Not have a term test worth more than 25% in the last two weeks of class.
- Retain intellectual property rights to your research.
- Receive all your assignments once graded.
- View your final exams. To see a final exam, you must submit an online Exam Reproduction Request within 6 months of the exam. There is a small non-refundable fee.
- Privacy of your final grades.
- Arrange for representation from Downtown Legal Services (DLS), a representative from the UTM Students’ Union (UTMSU), and/or other forms of support if you are charged with an academic offence.

Equity Statement

The University of Toronto is committed to equity and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect. As a course instructor, I will neither condone nor tolerate behaviour that undermines the dignity or self-esteem of any individual in this course and wish to be alerted to any attempt to create an intimidating or hostile environment. It is our collective responsibility to create a space that is inclusive and welcomes discussion. Discrimination, harassment and hate speech will not be tolerated. If you have any questions, comments, or concerns you may contact the UTM Equity and Diversity officer at edo.utm@utoronto.ca or the University of Toronto Mississauga Students’ Union Vice President Equity at vpequity@utmsu.ca.
Please note that this outline is subject to change depending on the needs of the class (we may need additional time to cover a topic). Any changes to the syllabus will be announced in class one week before. However, the assignment and test dates are fixed.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignments and readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 10</td>
<td>Lecture 1: History of comparative cognition</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>Sept 17</td>
<td>Lecture 2: Sensory systems</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>Sept 24</td>
<td>Lecture 3: Memory</td>
<td>Chapter 3</td>
</tr>
<tr>
<td></td>
<td>Discussion Group 1</td>
<td>Discussion article and/or media links to be posted</td>
</tr>
<tr>
<td>Oct 1</td>
<td>Lecture 4: Associative Processes</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>Oct 8</td>
<td>Lecture 5: Orientation and Navigation</td>
<td>Chapter 5</td>
</tr>
<tr>
<td></td>
<td>Discussion Group 2</td>
<td>Discussion article and/or media links to be posted</td>
</tr>
<tr>
<td>Oct 15</td>
<td>Reading Week (No Lecture)</td>
<td></td>
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<tr>
<td>Oct 22</td>
<td>Midterm Exam</td>
<td></td>
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<tr>
<td>Oct 29</td>
<td>Lecture 6: Timing and Number</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>Nov 5</td>
<td>Lecture 7: Decision Making</td>
<td>Chapter 7</td>
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<tr>
<td></td>
<td>Discussion Group 3</td>
<td>Discussion article and/or media links to be posted</td>
</tr>
<tr>
<td>Nov 12</td>
<td>Lecture 8: Causality and tool use</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>Nov 19</td>
<td>Lecture 9: Categorization and Concept formation</td>
<td>Chapter 9</td>
</tr>
<tr>
<td></td>
<td>Discussion Group 4</td>
<td>Discussion article and/or media links to be posted</td>
</tr>
<tr>
<td>Nov 26</td>
<td>Lecture 10: Social competence and prosocial behavior</td>
<td>Chapter 10, 11</td>
</tr>
<tr>
<td>Dec 3</td>
<td>Lecture 11: Communication</td>
<td>Chapter 12</td>
</tr>
<tr>
<td></td>
<td>Discussion Group 5</td>
<td>Discussion article and/or media links to be posted</td>
</tr>
<tr>
<td>Dec 9 - 21</td>
<td>Research Thought Paper DUE before class Dec 3</td>
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</table>

**Final exam:** During exam period, it is the student’s responsibility to be available for the entire exam period

**Note:** November 10, 2021 is the last day to drop the course without academic penalty.