Course Schedule

IMPORTANT: ALL TIMES EASTERN - Please see the University Policies section of your Syllabus for details.

Week	Modules	Readings and Other Assigned Material	Activities and Assignments	Begin Date	End / Due Date	Weight %
1	Module 01: Introduction Module 02: Computing Machinery and Intelligence (Turing)	**Mind:**Chapter 1 **Readings**: Turing (PDF)	Introduce Yourself	Friday, January 5, 2018		Ungraded
2	Module 03: Logic	**Mind**: Chapter 2 **Readings**: McCarthy (PDF)	Essay Assignment 1	Wednesday, January 10, 2018 at 12:05 AM		
3	Module 04: Rules	**Mind**: Chapter 3 **Readings**: Simon (PDF); Newell (PDF); Pinker (PDF)				
4	Module 05: Concepts	**Mind**: Chapter 4 **Readings**: Smith (PDF)	Essay Assignment 1		Wednesday, January 24, 2018 at 11:55 PM	**15%**
5	Module 06: Analogy	**Mind**: Chapter 5 **Readings**: Gentner and Markman (PDF)				
6	Module 07: Images	**Mind**: Chapter 6 **Readings**: Kosslyn (PDF); Dennet (PDF); Glasgow and Papadias (PDF)				
7	Module 08: Connectionism	**Mind**: Chapter 7 **Readings**: Churchland and Sejnowski (PDF)	Midterm Take-home Examination	Wednesday, February 14, 2018 at 12:05 AM		
READING WEEK (Sunday, February 18, 2018 to Saturday, February 24, 2018)						
8	None	**There are no readings for this**	Midterm Take-home		Wednesday, February 28,	**25%***

		week.	Examination		2018 at 11:55 PM
9	Module 09: Neuroscience Module 10: Emotions	**Mind**: Chapters 9 and 10 **Readings**: Thagard (PDF); Oatley (PDF)	Essay Assignment 2	Wednesday, March 7, 2018 at 12:05 AM	
10	Module 11: Consciousness	**Mind**: Chapter 11 **Readings**: Crick and Koch (PDF)			
11	Module 12: Embodiment Module 13: Dynamical Systems	**Mind**: Chapter 12, pp. 191-197 and pp. 198-204 **Readings**: Eliasmith (PDF); Brooks (PDF)			
12	Module 14: Intentionality Module 15: Externalism Module 16: Conclusion	**Mind**: Chapter 12, pp. 193-195 and Chapter 13 **Readings**: Searle (PDF); Clark and Chalmers (PDF) **Web**: Hauser	Essay Assignment 2		Wednesday, March 28, 2018 at 11:55 PM **25%**
			Prepare for Final Examination	Study Questions Available Thursday, March 29, 2018 at 12:05 AM	
Final Examination	Final Examination				**35***

* As a means of recognizing and rewarding improvement, the Final Examination will be weighted at 40% and the Midterm at 20% for students who achieve a better grade on the Final than on the Midterm.

Final Examination Arrangements and Schedule

Please carefully review the information about writing exams for online courses, including dates, locations, how to make examination arrangements, writing with a proctor, and deadlines.

If you are taking **any on-campus courses**, you will automatically be scheduled to write your exam on campus. No action is required.

If you are taking **only online courses, do one of the following**:

- If your **address in QUEST is within 100 km** of an examination centre, you must choose an exam centre in Quest by **Sunday, January 14, 2018**. This must be done each term.
- If your address in Quest is **more than 100 km from an exam centre, you must arrange for a proctor**. Please review the guidelines and deadlines for writing with a proctor. This must be done each term.

Your online course exam schedule will be available in Quest approximately four weeks before your exam date(s).

Instructions on how to find your schedule are posted on the Quest Help page.

University of Waterloo Senate-approved academic regulations related to assignments, tests, and final exams can be found on the Registrar's website.

Official Grades and Course Access

Official Grades and Academic Standings are available through Quest.

Your access to this course will continue for the duration of the current term. You will not have access to this course once the next term begins.

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**.

Discussions

A **General Discussion** topic* has also been made available to allow students to communicate with peers in the course. Your instructor may drop in at this discussion topic.

Contact Us

Who and Why	Contact Details
Instructor ○ Course-related questions (e.g., course content, deadlines, assignments, etc.) ○ Questions of a personal nature	**Post your course-related questions** to the **Ask the Instructor** discussion topic*. This allows other students to benefit from your question as well. **Questions of a personal nature** can be directed to your instructors. Instructors: Dylon McChesney: dmcchesn@uwaterloo.ca Darlene Drecun: ddrecun@uwaterloo.ca Your instructors check email and the **Ask the Instructor** discussion topic* frequently and will make every effort to reply to your questions within 24–48 hours, Monday to Friday. For contact with the Philosophy Department, email phil-online@uwaterloo.ca or phone +1 519-888-4567, ext. 32449.
Technical Support, Centre for Extended Learning ○ Technical problems with Waterloo LEARN	learnhelp@uwaterloo.ca Include your full name, WatIAM user ID, student number, and course name and number. Technical support is available during regular business hours, Monday to Friday, 8:30 AM to 4:30 PM (Eastern Time). LEARN Help Student Documentation

Learner Support Services, Centre for Extended Learning	[Student Resources](#)
- General inquiries - WatCards (Student ID Cards) - Examination information	[extendedlearning@uwaterloo.ca](#) +1 519-888-4002 Include your full name, WatIAM user ID, student number, and course name and number.

*Discussion topics can be accessed by clicking **Connect and then **Discussions** on the course navigation bar above.

Course Description and Objectives

Course Description

Cognitive science is the interdisciplinary study of mind and intelligence, operating at the intersection of psychology, philosophy, computer science, linguistics, anthropology, and neuroscience. This course will survey the different methodologies and theoretical contributions of these disciplines to questions such as mental representation, the nature of expertise, and consciousness. It will focus on a fundamental question in cognitive science research: What kinds of representations must be postulated to explain human intelligence or to develop computer intelligence?

Objectives

In this course:

- Students should become familiar with the development of Cognitive Science from its inception ca. 1950 and its response to challenges up to the present time

- Students should come to understand the chief concerns of Cognitive Science, e.g., mind, thinking, and intelligence

- Students should grasp the relevance and basic contributions of the various disciplines relevant to Cognitive Science

- Students should develop their competence at reading and understanding the literature of Cognitive Science through analysis of selected readings

- Students should exercise their skills at analyzing the merits of Cognitive Science as an account of mind

- Students should enhance their skills at communicating their insights into Cognitive Science, with emphasis on drawing and supporting conclusions through written exposition

This online course was developed by Cameron Shelley, with instructional design and multimedia development support provided by the Centre for Extended Learning.

About the Course Author

Cameron Shelley

Please note that the course author is not involved in the ongoing delivery and administration of this course. Communication regarding course content should be addressed to the instructor listed on the Contact Information page.

Cameron Shelley obtained his Ph.D. in Philosophy at the University of Waterloo in 1999. He has taught Cognitive Science at the University of Waterloo since 2003. He enjoys reading, writing, thinking, drinking, skiing, skating, paddling, and owns a cat.

Materials and Resources

Textbooks

Required

1. Thagard, Paul. (2005). *Mind: Introduction to Cognitive Science*. 2nd Edition. The MIT Press.

2. *Book of Readings*, University of Waterloo, Revised 2012.
   The readings can be accessed as PDF files via the Course Schedule or the Module landing pages. If desired, you can purchase a hardcopy through Booklook.

For textbook ordering information, please contact the [Waterloo Bookstore](#).

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 distance education students](#)

Grade Breakdown

The following table represents the grade breakdown of this course.

Activities and Assignments	Weight (%)
Introduce Yourself	Ungraded
Module Discussions	Ungraded
Essay Assignment 1	15%
Midterm Take-home Examination	25%*
Essay Assignment 2	25%
Final Examination	35%*

* As a means of recognizing and rewarding improvement, the Final Examination will be weighted at 40% and the Midterm at 20% for students who achieve a better grade on the Final than on the Midterm.

Course and Department Policies

Course and Department Policies

This course **requires** regular access to the Waterloo LEARN course site. Your instructor will use this site for communicating important information concerning course matters, returning graded assignments, etc. A reliable internet connection and regular checking of the course site (at least twice a week) is therefore **mandatory**.

Late Policies

ESSAY ASSIGNMENTS

Late submission of essay assignments will be penalized at the rate of 10% of the value for the assignment per day late. This policy will apply without exception unless a documented excuse of sufficient weight (e.g., a medical emergency) is provided to the instructor.

MIDTERM TAKE-HOME EXAMINATION

Late submissions will ordinarily not be accepted.

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

If this course has a final exam and if you are unable to write a final examination due to illness, seek medical treatment and have a medical practitioner complete a Verification of Illness Form. Email a scanned copy to the Centre for Extended Learning (CEL) at extendedlearning@uwaterloo.ca within 48 hours of your missed exam. Make sure you include your name, student ID number, and the exam(s) missed. You will be REQUIRED to hand in the original completed form before you write the make-up examination.

After your completed Verification of Illness Form has been received and processed, you will be emailed your alternate exam date and time. This can take up to 2 business days. If you are within **150 km** of Waterloo you should be prepared to write in Waterloo on the additional CEL exam dates. If you live outside the 150 km radius, CEL will work with you to make suitable arrangements.

Further information about Examination Accommodation Due to Illness regulations is available in the Undergraduate Calendar.

Academic Integrity

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.

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.

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.

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

AccessAbility Services, located in Needles Hall, 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 accommodation to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term and for each course.

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.

Use of Computing and Network Resources

Please see the Guidelines on Use of Waterloo Computing and Network Resources.

Copyright Information

UWaterloo's Web Pages

All rights, including copyright, images, slides, audio, and video components, of the content of this course are owned by the course author, unless otherwise stated. These web pages are owned or controlled by the University of Waterloo, Centre for Extended Learning. By accessing the web pages, you agree that you may only download the content for your own personal, non-commercial use. You are not permitted to copy, broadcast, download, store (in any medium), transmit, show or play in public, adapt, or change in any way the content of these web pages for any other purpose whatsoever without the prior written permission of the course author and the University of Waterloo, Centre for Extended Learning.

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.