

PSYCH 256 Introduction to Cognitive Science Course Outline and Course Breakdown

Week	Module	Readings	Activities and Assignments	End/Due Date	Weight (%)
1	Module 01: Introduction to the Cognitive Revolution	Miller, George A (March, 2003). "The Cognitive Revolution: a historical perspective". Trends in Cognitive Science, Vol. 7, No. 3, pp. 141-144. Thagard, Paul (2009). "Why Cognitive Science Needs Philosophy and Vice Versa". Topics in Cognitive Science 1, pp. 237-254.			
2	Module 02: The Pre-History of Cognitive Science	Aristotle, "De Anima" from Reading in Ancient Greek Philosophy: From Thales to Aristotle (Third Edition), edited by S. Marc Cohen, Patricia Curd, and C.D.C. Reeve. Indianapolis: Hackett, pp. 809-831 (Bekker pagination 402a-434a). Descartes, René (2011). "Meditations on First Philosophy, Second Meditation" from Modern Philosophy (Sixth Edition), edited by Forrest E. Baird. Upper Saddle River, NJ: Prentice Hall, pp. 22-27. Cohen, S. M., Curd, P., & Reeve, C. D. C. (Eds.). (2016). Readings in Ancient Greek Philosophy: From Thales to Aristotle. pp. 175-186.	Introduce Yourself	Friday, May 17, 2019 at 4:30 PM	Ungraded
3	Module 03: From Turing Machines to Functionalism	Putnam, Hilary (1975). "The Nature of Mental States", in Hilary Putnam, Mind Language and Reality: Philosophical Papers, Vol. 2, Cambridge University Press, pp. 429-440. Turing, Alan (1950). "Computing Machinery and Intelligence". Mind, Vol. 59, No. 236, pp. 433-460. Searle, John (1980). "Minds, Brains, and Programs". The Behavioural and Brain Sciences 3, 417-424.	Essay Assignment 1 Available Wednesday May 22, 2019 at 12:05 AM		15%

4	Module 04: Logic and Cognition	<p>Dennett, Daniel (1998, originally published in 1984). "Cognitive Wheels: The Frame Problem of AI", in <i>Brainchildren: Essays on Designing Minds</i>. Cambridge: MIT Press, a Bradford Book, pp. 181-205.</p> <p>Frege, Gottlob (1956, originally published in 1918). "The Thought: A Logical Inquiry". <i>Mind</i>, Vol. 65, No. 259, pp. 289-311."</p>			
5	Module 05: Cognition and Linguistic Ability	<p>Chomsky, Noam (1993). "On the Nature, Use, and Acquisition of Language". <i>Readings in Philosophy and Cognitive Science</i>, Alvin I. Goldman (ed). MIT Press, pp. 511-534.</p> <p>Everett, Dan (2005). "Cultural Constraints on Grammar and Cognition in Pirahã." <i>Current Anthropology</i>, vol. 46, no. 4, pp. 621-646.</p> <p>Sapir, Edward (1929). "The Status of Linguistics as a Science". <i>Language</i>, vol. 5 iss. 4, pp. 207- 214.'</p>	Essay Assignment 1 Due	Friday June 7, 2019 at 11:55 PM	
6	Module 06: Concepts, Part I: The Classic View and Definitions	<p>Fodor, Jerry (1995). "Concepts: A Potboiler". <i>Philosophical Issues</i>, vol. 6, content, pp. 1-24.</p> <p>Murphy, Gregory (2002). "Typicality and the Classical View of Categories". <i>The Big Book of Concepts</i>, A Bradford Book, MIT Press, pp. 11-40.</p> <p>Prinz, Jesse (2002). "Desiderata on a Theory of Concepts". <i>Furnishing the Mind: Concepts and Their Perceptual Basis</i>, A Bradford Book, MIT Press, pp. 1-23</p>			
7	Module 07: Concepts, Part II: Prototypes, Exemplars and Beyond	<p>Fodor, Jerry (1995). "Concepts: A Potboiler". <i>Philosophical Issues</i>, vol. 6, content, pp. 1-24.</p> <p>Rosch, Eleanor (1978). "Principles of Categorization" in <i>Cognition and Categorization</i>, edited by Eleanor Rosch and Barbara Lloyd. Hillsdale, NJ: Lawrence Erlbaum, pp. 27-48).</p> <p>Smith, Edward and Douglas Medin (1999). "The Exemplar View" in <i>Concepts: Core Readings</i>, edited by Eric Margolis and Stephen Laurence. MIT Bradford Books, pp. 207-221.</p>	Midterm Take-home Examination Available Wednesday June 19, 2019 at 12:05 AM		20%

8	Module 08: Mental Imagery	<p>Kosslyn, Stephen, Giorgio Ganis, and William Thompson (2006). "Mental Images and Mental Representations" from The Case for Mental Imagery. New York: Oxford University Press, pp. 3-23.</p> <p>*Pylyshyn, Zenon (2002). "Mental Imagery: In Search of a Theory," Behavioural and Brain Sciences, 25, pp. 157-238.</p>	Midterm Take-home Examination Due	Wednesday June 26, 2019 at 11:55 PM	
9	Module 09: Fake Brains: Connectionism and Artificial Neural Networks	<p>Eliasmith, Chris (2007). "How to Build a Brain: From Function to Implementation," Synthese 159, pp. 373- 388.</p> <p>Fodor, Jerry (1997). "Connectionism and the Problem of Systematicity: Why Smolensky's Solution Still Doesn't Work," Cognition, 62, pp. 109– 119.</p> <p>Hinton, Geoffrey (1992). "How Neural Networks Learn from Experience," Scientific American, Vol. 267 No. 3, pp. 144-151.</p>	Essay Assignment 2 Available Wednesday, July 3, 2019 at 12:05 AM		30%
10	Module 10: Emotion and Cognition	<p>Oatley, Keith, W. Gerrod Parrott, Craig Smith, and Fraswer Watts (2011). "Cognition and Emotion Over 25 Years," Cognition and Emotion, 25 (8), pp. 1341-1348.</p> <p>Damasio, Antonio (1994). "A Passion for Reasoning" from Descartes' Error: Emotion, Reason, and the Human Brain. New York: Avon Books, pp. 245-267.</p> <p>Prinz, Jesse (2006). "Is Emotion a Form of Perception?" Canadian Journal of Philosophy, vol. 36, supplement vol. 32, pp. 137-160.</p>			
11	Module 11: Extended Minds	<p>Clark, Andy and David Chalmers (2010). "The Extended Mind" in The Extended Mind, edited by Richard Menary. MIT, A Bradford Book, pp.27-41.</p> <p>Adams, Fred and Kenneth Aizawa (2009). "Why the mind is still in the head," in the Cambridge Handbook of Situated Cognition, edited by P. Robbins and M. Aydede. Cambridge, MA: Cambridge University Press, 78–95.</p>			
12	Module 12: Situated Cognition	<p>de Bruin, Leon, and Lena Kästner (2012). "Dynamic Embodied Cognition." Phenomenology and the Cognitive Sciences, Vol. 11, Issue 4, pp. 541-563.</p> <p>Jacobsen, Ann Jaap (2012). "Seeing as a Social Phenomenon", in Robyn Bluhm, Anne Jaap Jacobson & Heidi Lene Maibom (eds.),</p>	Essay Assignment 2 Due	Wednesday, July 24, 2019 at 11:55 PM	

		Neurofeminism: Issues at the Intersection of Feminist Theory and Cognitive Science. Palgrave-Macmillan, pp. 216-229.			
	Final Examination				

Final Examination Arrangements and Schedule

Please carefully review the information about writing exams (<https://uwaterloo.ca/extended-learning/learn-online/write-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 (<https://uwaterloo.ca/extended-learning/learn-online/write-exams/exam-centres>) , you must choose an exam centre in Quest (<https://uwaterloo.ca/quest/>) by Sunday, May 19, 2019. 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 (<https://uwaterloo.ca/extended-learning/learn-online/write-exams/writing-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 (<https://uwaterloo.ca/quest/help/students/how-do-i/online-exam-schedule>) page.

University of Waterloo Senate-approved academic regulations related to assignments, tests, and final exams (<https://uwaterloo.ca/registrar/final-examinations/examination-regulations-and-related-matters>) can be found on the Registrar's website.

Official Grades and Course Access

Official Grades and Academic Standings are available through Quest (<https://uwaterloo.ca/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.

Grade Breakdown

Activities and Assignments	Weight (%)
Introduce Yourself	Ungraded
Essay Assignment 1 3 page essay (double-spaced)	15%

Midterm Take-home Examination 5 pages (double-spaced)	20%
Essay Assignment 2 5-6 page essay (double-spaced)	30%
Final Examination	35%