

University of Waterloo
Department of Philosophy
PHIL 256 / PSYCH 256
Introduction to Cognitive Science
Winter, 2015
10:00-11:20. RCH105

Instructor Information

Instructor: Paul Thagard
Office: HH 368
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Office Hours: TTh 11:30-12:30, and by appointment.
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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 describe 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? Is a scientific understanding of mind possible? This course is truly interdisciplinary and students are advised that it is not like conventional philosophy or psychology courses.

Course Goals and Learning Outcomes

Upon completion of this course, students should be able to understand the main kinds of representations and processes responsible for thinking and discuss fundamental questions about the nature of mind.

Required Texts

- *P. Thagard, Mind: Introduction to Cognitive Science, 2nd edition.*
P. Thagard, ed., *Mind Readings: Introductory Selections in Cognitive Science.*

Course Requirements and Assessment

Assessment	Date of Evaluation	Weighting
One minute essays at the end of each class	Daily	8
Essay 10 pages	Mar. 19	23
Exams (23% each)	Jan. 29, Mar. 5, Apr. 2	69
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Total		100%

Course Outline

Week	Date	Topic	Readings Due
1	Jan. 6-8	Representation	M 1 + MR 1
2	Jan. 13-15	Logic	M 2 + MR 2
3	Jan. 20-22	Rules	M 3 + MR 3-4
4	Jan. 27-29	Concepts	M 4 + MR 5
5	Feb. 3-5	Analogies	M 5 + MR 6
6	Feb. 10-12	Images	M 6 + MR 7
7	Feb. 24-26	Connections	M 7 + MR 8
8	Mar. 3-5	Connections	M 8
9	Mar. 10-12	Brains, emotions	M 9-10 + MR 9
10	Mar. 17-19	Consciousness	M 11-12 + MR 10-11
11	Mar. 24-26	Environments	M 12-13 + MR 12-13
12	Mar. 31-Apr. 2	Future	M 14

Late Work

Essays and exams must be completed on schedule except for documented cases of serious medical problems or family emergencies. Travel plans and workload from other courses are not legitimate excuses.

Electronic Device Policy

Please do not use laptops and other electronic devices in class, for reasons given on my blog.

Attendance Policy

See assessment 1.

Institutional-required statements for undergraduate course outlines approved by Senate Undergraduate Council, April 14, 2009

Cross-listed course

Please note that a cross-listed course will count in all respective averages no matter under which rubric it has been taken. For example, a PHIL/PSCI cross-list will count in a Philosophy major average, even if the course was taken under the Political Science rubric.

Academic Integrity

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offences, 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 professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found

to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](#).

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](#).

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read [Policy 72 - Student Appeals](#).

Other sources of information for students

[Academic integrity](#) (Arts) [Academic Integrity Office](#) (uWaterloo)

Accommodation for Students with Disabilities

Note for students with disabilities: The [AccessAbility Services office](#), located in Needles Hall Room 1132, 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 accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.