

PHILOSOPHICAL ASPECTS OF
COGNITIVE SCIENCE
M/TH 11:30 AM-12:50 PM, SC-204
SPRING 2019

Instructor: Cameron Domenico Kirk-Giannini
Office: Room 514, 106 Somerset Street, 5th Floor
Office Hours: W 11:00 AM-12:00 PM (and by appointment)
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COURSE DESCRIPTION

What explains how biological systems can have complex mental lives? Are our minds sophisticated symbol-manipulators akin to modern computers? Or do they work in some fundamentally different way?

The goal of this course is to explore and critically assess a variety of answers to these questions. In the first half of the semester, we will consider the dominant theory of the mind in cognitive science — the computational theory of cognition — as well as two questions that arise for it: the theoretical role of representational contents and the extent to which the mind is organized into cognitive “modules.”

In the second half of the semester, we will consider two traditions in cognitive science which have been taken to challenge the computational theory of cognition. The first of these traditions, which encompasses connectionist and certain eliminativist approaches, suggests that the computational theory of cognition pays insufficient attention to the fact that cognition is realized in the brain by networks of interconnected neurons. The second, which advocates an extended or embodied concep-

tion of cognition, suggests that the computational theory of cognition pays insufficient attention to the way that behavior arises from interactions between organisms and their environments.

LEARNING OBJECTIVES

First, this course will give you a detailed understanding of some of the most important issues in the philosophy of cognitive science. Second, this course is designed to help you develop crucial philosophical abilities like reconstructing and evaluating arguments, articulating your ideas in conversation, and writing clearly and cogently. Half of our meetings will be devoted to discussion. While I will guide these discussions, it will be up to you to formalize and criticize the arguments we find in our readings and engage with other students who might disagree with you about whether they are sound.

ASSIGNMENTS AND GRADING

There will be three significant course requirements. First, you will be required to write a short (no more than 200 word!) response to the reading each week. **Responses are due by 5:00 PM each Friday.** These responses must *not* merely summarize the reading — they must either describe a weakness in the author’s argument or articulate a sophisticated question about the reading. **You are free to skip up to three of these responses without penalty.** Second, there will be two 900-1200 word papers. Third, there will be a final examination.

Grades will be determined as follows:

- Class participation and reading responses: 30%
- Papers 1 & 2 : 40%
- Final exam (**May 09, 2019: 8:00 AM - 11:00 AM**): 30%

TEXTBOOK

There will be no textbook for this course. All required readings will be available for download on the course website.

SEMESTER OVERVIEW

PART I: THE COMPUTATIONAL THEORY OF COGNITION

Week 1 (Week of Monday 1/21):

Reading: None

1/24 (Th): First Meeting (Introduction)

Week 2 (Week of Monday 1/28):

Reading: Jerry Fodor, *Psychosemantics*, Ch 1 ("The Persistence of the Attitudes"), pages 1-17

1/28 (M): Discussion

1/31 (Th): Lecture — Representation and Computation

Week 3 (Week of Monday 2/4):

Reading: Jerry Fodor, *Psychosemantics*, Ch 1 ("The Persistence of the Attitudes"), pages 18-25, Appendix

2/4 (M): Discussion

2/7 (Th): Lecture — The Computational Theory of Cognition

Week 4 (Week of Monday 2/11):

Reading: John Searle, "Minds, Brains, and Programs," with replies by Block, Dennett, and Fodor

2/11 (M): Discussion

2/14 (Th): Lecture — The Chinese Room

PART II: WHY POSIT CONTENTS?

Week 5 (Week of Monday 2/18):

Reading: Stephen Stich, *From Folk Psychology to Cognitive Science*, Ch 8 ("The Syntactic Theory of the Mind"), Sections 2 and 3

2/18 (M): Discussion

2/21 (Th): Lecture — Stich's Syntactic Theory

Week 6 (Week of Monday 2/25):

Reading: Frances Egan, "Computation and Content"

2/25 (M): Discussion

2/28 (Th): Lecture — Content or Discontent?

PART III: MODULES

Week 7 (Week of Monday 3/4):

Reading: Jerry Fodor, *The Modularity of Mind*, Ch 3 ("Input Systems as Modules"), selections

3/4 (M): Discussion

3/7 (M): Lecture — The Modularity Hypothesis

PAPER 1 DUE BY 5:00 PM EST ON FRIDAY, 3/8

Week 8 (Week of Monday 3/11):

Reading: Jesse J. Prinz, "Is the Mind Really Modular?"

3/11 (M): Discussion

3/14 (Th): Lecture — Modularity: Pro and Con

**PART IV: CONNECTIONISM AND
ELIMINATIVISM**

Week 9 (Week of Monday 3/25):

Reading: Patricia Smith Churchland, "Language, Thought, and Information Processing"

3/25 (M): Discussion

3/28 (Th): Lecture — Eliminative Materialism

Week 10 (Week of Monday 4/1):

Reading: Brian P. McLaughlin, "Computationalism, Connectionism, and the Philosophy of Mind" (Selections) and "The Connectionism/Classicism Battle to Win Souls"

4/1 (M): Discussion

4/4 (Th): Lecture — Connectionism and Systematicity

Week 11 (Week of Monday 4/8):

Reading: Ken Aizawa, "Tough Times to Be Talking Systematicity"

4/8 (M): Discussion

4/11 (Th): Lecture — Cognitive Architecture: The Debate Today

PART V: EXTENSION AND EMBODIMENT

Week 12 (Week of Monday 4/15):

Reading: Andy Clark and David Chalmers, "The Extended Mind"

4/15 (M): Discussion

4/18 (Th): Lecture — The Extended Mind

Week 13 (Week of Monday 4/22):

Reading: Fred Adams and Ken Aizawa, "The Bounds of Cognition"

4/22 (M): Discussion

4/25 (Th): Lecture — The Mind Confined?

Week 14 (Week of Monday 4/29):

Reading: Lawrence Shapiro, *Embodied Cognition*, Ch 3 ("Conceptions of Embodiment")

4/29 (M): Discussion

5/2 (Th): Lecture — Embodiment Introduced

PAPER 2 DUE BY 5:00 PM EST ON FRIDAY, 5/3

Week 15 (Week of Monday 5/6):

Reading: Lawrence Shapiro, *Embodied Cognition*, Ch 5 ("Embodied Cognition: The Replacement Hypothesis")

5/6 (M): Lecture — The Embodiment Challenge

CLASS PARTICIPATION

Vocal participation in class is an extremely important part of learning to do philosophy. I will be keeping track of who participates in class. This will enable me to both assign participation grades and ensure that those who have spoken less have priority when they wish to participate. There will be numerous opportunities to participate during both discussion sessions and lecture sessions. Feel free to ask a question at any time — remember, it's likely that someone else in the class has the same question and would benefit from you asking!

LATENESS POLICY

Reading responses may not be turned in late, but you are permitted to skip up to three without penalty. Other assignments may be turned in late, but will be subject to a one-letter-grade penalty per day late (a one-letter-grade drop is the difference between an A and a B and between a B+ and a C+).

If you would like an extension on an assignment, you must notify me at least 24 hours in advance of the deadline for that assignment. Extensions will be granted on a discretionary basis.

ACADEMIC INTEGRITY

Plagiarism of any form is unacceptable and will not be tolerated. For more information on what constitutes plagiarism, see: <http://wp.rutgers.edu/courses/plagiarism>. Please note that submitting the same material for credit on more than one assignment, whether in the same class or in different classes, is self-plagiarism and will be treated like any other form of plagiarism.

COLLABORATION

There are two kinds of collaborators. *Reviewers* offer comments on a pre-existing piece of writing. They are not responsible for the writing or major aspects of the argument of the pieces on which they comment. You are encouraged to seek reviewers for your pieces of writing. Please acknowledge your reviewers by name in a footnote at the end of your essay.

Co-authors enter into the creative process with the author. They are responsible for significant parts of the writing and/or argument of the pieces which they co-author. You are not permitted to submit co-authored work for credit in this course.

CORRUPT FILES

It is your responsibility to ensure that you provide your written work to me in a format I can access. If you submit a corrupt file, I will do my best to notify you as soon as possible. It is then your responsibility to send me another copy of the file in a timely manner. This means it is very important that you open and read emails from me. If I request a second copy of a file and you do not reply in a timely manner, I will regard the assignment as not having been submitted.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Every effort will be made to accommodate students who present a valid Letter of Accommodations. For more information, see: <https://ods.rutgers.edu/my-accommodations/letter-of-accommodations>

RELIGIOUS OBSERVANCE

I am happy to accommodate special needs related to students' religious practices. However, I require that you notify me in writing within the first two weeks of class if you will need such accommodation at any point during the semester.

NO EXTRA CREDIT

There will be no opportunities to earn extra credit in this course.

CONFIDENTIALITY

Please note that I am required to report certain sensitive information you might relate to me to the University. If you would like to confidentially report sensitive information, you may do so through CAPS. For more information, see: <http://rhscaps.rutgers.edu/>.