University of Central Florida
PHI 3323: Minds and Machines: Philosophy of Cognitive Science
Spring 2017, Syllabus, v. 01052017

Course Information
□ Title: Minds and Machines: Philosophy of Cognitive Science
□ Course number: PHI 3323
□ Credit hours: 3.0
□ Term: Spring semester 2017
□ Mode: Web

Instructor Information
□ Name: Luis Favela, Ph.D.
□ Email: luis.favela@ucf.edu
□ Website: http://philosophy.cah.ucf.edu/staff.php?id=1017
□ Office location: PSY0245
□ Office hours: Wednesday, 3:00 – 5:00 pm

Course Description
□ Catalogue description: Assumptions undergirding research in Cognitive Science.
□ Detailed description: The purpose of this course is to provide a broad introduction to the interdisciplinary field of Cognitive Science. As an interdisciplinary field, the material covered will be from various disciplines such as artificial intelligence, linguistics, neuroscience, philosophy, and psychology. Cognitive Science includes a great deal of both theoretical and empirical work. As such, this course will allow students to gain experience in analyzing and evaluating theories in Cognitive Science and determining whether or how a contemporary issue in Cognitive Science could be addressed empirically.

Student Learning Outcomes
□ Students will be able to *define* concepts utilized in Cognitive Science.
□ Students will be able to *explain* frameworks utilized in Cognitive Science.
□ Students will be able to *reconstruct* the arguments underlying theories of Cognitive Science.
□ Students will be able to *articulate* their positions concerning whether or not they agree with theories underlying Cognitive Science.

Notes Regarding Web Format and Time Commitment
□ Web format: Although the material you learn in this web-based course is the same as a face-to-face course, there is one *major* difference: This course is largely independent and requires a high degree of time management on your part. It is your responsibility to login to Webcourses multiple times per week and keep track of assignment availability and due dates.
□ Time commitment: This is a three-credit course over a 15-week period and covers the same amount of material as a face-to-face course. The expectation of a three-credit course over a 15-week semester is that there will be three hours of class time each week (45 hours for semester) and two hours (minimum) of study time for every hour of class time (90 hours for semester), for a total of 135 hours devoted to each class. Although a web-based format, this course will require *at least* nine hours per week of your time. These nine hours (minimum)

will include "class" time in the form of students reading textbook and slides (three hours per week) and study time in the form of reviewing notes, etc. (six hours per week).

Course Materials
□ All readings and materials are provided in Webcourses as PDFs or links.

Gordon Rule Writing Course
□ This is a Gordon Rule writing course. As such, there are a number of assignments that require you to demonstrate college-level writing. "College-level writing" includes the following: a clearly defined thesis, adequate support for that thesis, clear and logical organization, awareness of conventions of standard written English, and appropriate formatting.
□ Assignments marked with an asterisk (*) contribute to the Gordon Rule writing requirement.

Course Requirements
□ Required Academic Activity
  ▪ All instructors are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please complete the following academic activity by the end of the first week of class or as soon as possible after adding the course. Failure to do so may result in a delay in the disbursement of your financial aid.
  ▪ Activity: Signed syllabus:
    • After you read the syllabus, sign and submit the last page as an indicator that you understand the expectations and policies of this course.
    • Options for signing and submitting page—it is your responsibility to figure out which option works best for you:
      - Print, fill out, scan and send via email as an attachment.
      - Print, fill out, take a photo and send via email as an attachment.
      - Separate last page of syllabus PDF, fill out, add electronic signature, and send via email as an attachment.
    • Available 8:00 am EST, Monday, January 9.
    • Due 4:00 pm EST, Friday, January 13.
□ Quizzes
  ▪ There will be five quizzes.
  ▪ Quiz questions will be based on material from the assigned readings, lecture slides, media, and other supplementary material.
□ * Papers
  ▪ Students will have two (short, i.e., ~5 pages each) paper assignments.
  ▪ Guidelines and expectations will be distributed closer to the assignment dates.
□ * Exams
  ▪ There will be two exams.
  ▪ The first exam will include material from the first part of the course and the second exam will include material from the second part of the course.
□ Note: You are responsible for all reading assignments. Unless stated otherwise (e.g., "optional" readings), anything assigned to you is potential quiz, exam, or paper material.

Grading
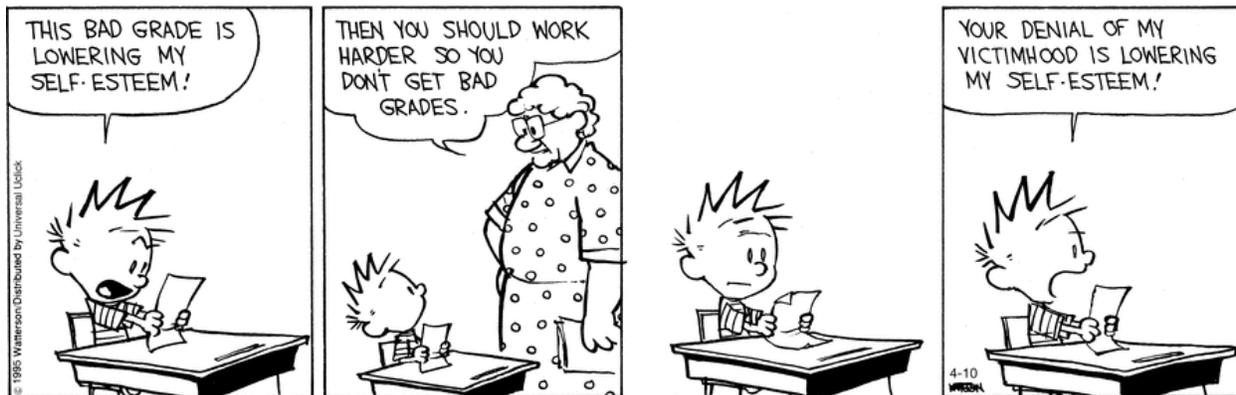
- ☐ Quizzes
  - ▪ 5 quizzes, 40 points each, 200 points total
  - ▪ Combined 20% of total grade, each quiz 4% of total grade
- ☐ Papers
  - ▪ * Paper 1, 200 points, 20% of total grade
  - ▪ * Paper 2, 200 points, 20% of total grade
  - ▪ Combined both papers are 40% of total grade
- ☐ Exams
  - ▪ * Exam 1, 200 points, 20% of total grade
  - ▪ * Exam 2, 200 points, 20% of total grade
  - ▪ Combined both exams are 40% of total grade
- ☐ Total
  - ▪ 1000 points
    - • 900 – 1000 = A
    - • 800 – 899 = B
    - • 700 – 799 = C
    - • 600 – 699 = D
    - • 000 – 599 = F
  - ▪ The following example demonstrates how +/- are assigned:
    - • B- = 80, 81, 82%
    - • B = 83, 84, 85, 86%
    - • B+ = 87, 88, 89%
  - ▪ Percentages are not rounded, for example, an 80.2% is a B-, an 82.6% is a B-, an 89.8% is a B+, etc.
  - ▪ There are no A+ or F+ grades.
- ☐ Grade distributions: The final grades will not be curved.
- ☐ Extra credit: There is no extra credit.
- ☐ Incomplete grades: The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. As the instructor for this course, I am the final authority on

whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

- Extensions and late assignments
  - In general, no extensions will be allowed or late assignments accepted. (Really.)
  - However, extensions and late assignments will be considered for exceptional circumstances (e.g., family or medical emergencies) if appropriate documentation can be provided (e.g., doctor's note, funeral program, etc.).
  - If an assignment is accepted late, then it will be deducted 5% of the total possible point value of the assignment for every 12-hour block of time, including weekends. For example, if an assignment is due Monday at 11:59 pm and it is submitted on Tuesday at 12:01 am, then that assignment will lose 5%; if it is turned in on Tuesday at 1:00 pm, then it will lose 10%; and so on.
- Grade dissemination: You can access your scores at any time using the Grade Book function of Webcourses. If you need help accessing myUCF Grades, see the online tutorial: https://myucfgrades.ucf.edu/help/.

Course Policies
- Contact procedures
  - In-person contact: If you have questions related to the course, then see me during my office hours. We can attempt to schedule another time if you are unable to meet then.
  - Email and professionalism: I strongly believe that the university is a professional environment and that you and I are in a professional relationship. As such, be professional when you message me—for example, begin your message with "Hello Dr. Favela" and not "Hey you, can I have..." In addition, write complete sentences, be clear and concise, and reread messages before sending them. I will give one warning and then stop responding to your messages if they are unprofessional and/or discourteous. Allow 24 hours for a response during the week, and possibly more during the weekend and holidays.
  - Skype: If an issue comes up such that you prefer to talk instead of exchanging emails and you are unable to attend office hours or schedule an alternate in-person meeting time, then contact me and we can arrange to meet via Skype <dr.luis.favela>.
  - Webcourses: Do not contact me via Webcourses. I do not check it and will not reply.
- Academic integrity and plagiarism
  - As reflected in the UCF creed (http://creed.ucf.edu), integrity and scholarship are core values that should guide our conduct and decisions as members of the UCF community. Plagiarism and cheating contradict these values, and so are very serious academic offenses. Penalties can include a failing grade in an assignment or in the course, or suspension or expulsion from the university. Students are expected to familiarize themselves with and follow the University's Rules of Conduct (see www.osc.sdes.ucf.edu).
  - Plagiarism: Many incidents of plagiarism result from students' lack of understanding about what constitutes plagiarism. However, you are expected to familiarize yourself with UCF's policy on plagiarism. All work you submit must be your own scholarly and creative efforts. UCF's Golden Rule defines plagiarism as follows: "whereby another's work is used or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own."

- Plagiarism-detection service: In this course we will utilize turnitin.com, an automated system which I use to quickly and easily compare each student's assignment with billions of web sites, as well as an enormous database of student papers that grows with each submission. Accordingly, you will be expected to submit all assignments to both turnitin.com and me. After the assignment is processed, I receive a report from turnitin.com that states if and how another author's work was used in the assignment. For a more detailed look at this process visit http://www.turnitin.com.

□ Course accessibility: It is my goal that this class be an accessible and welcoming experience for all students, including those with disabilities that may impact learning in this class. If anyone believes the design of this course poses barriers to effectively participating and/or demonstrating learning in this course, please meet with me (with or without a Student Accessibility Services (SAS) accommodation letter) to discuss reasonable options or adjustments. During our discussion, I may suggest the possibility/necessity of your contacting SAS (Ferrell Commons 185; 407-823-2371; sas@ucf.edu) to talk about academic accommodations. You are welcome to talk to me at any point in the semester about course design concerns, but it is always best if we can talk at least one week prior to the need for any modifications.

□ Syllabus adjustments: The instructor reserves the right to make adjustments to all parts of the syllabus during the course. If any adjustments are made, the instructor will inform students of such changes.

□ Copyright: Unless otherwise stated, I reserve all rights for all course materials I create (e.g., syllabus, lecture materials, quizzes, etc.). Thus, this material may not be displayed, distributed, modified, or reproduced without prior written permission of the copyright holder: Luis H. Favela, Ph.D. Consequently, it would be illegal for you to post course materials on websites such as, but not limited to, Course Hero, Course Notes, etc.

Important Dates < http://calendar.ucf.edu/2017/spring>
□ Classes begin: January 9
□ Last day to drop and request full refund: January 12
□ Add deadline: January 13
□ No class: Spring break March 13-18
□ Withdrawal deadline: March 22
□ Classes end: April 24
□ Study day: April 25
□ Finals: April 26 – May 2
□ Grades available: May 8

Topic and Materials Schedule

Week	Dates	Topic	Readings	Media
1	Jan 9 - 15	Introduction to Philosophy of Cognitive Science	1 - 5	
2	Jan 16 - 22	Computational Representational Understanding of Mind (CRUM)	6 - 7	
3	Jan 23 - 29	CRUM: Logic, Rules, and Concepts	8 - 10	
4	Jan 30 - Feb 5	CRUM: Representations	11 - 13	
5	Feb 6 - 12	CRUM: Artificial Intelligence	14 - 16	
6	Feb 13 - 19	**Review/Catch-Up Week**	2 - 16	
7	Feb 20 - 26	**Exam Week**	2 - 16	
8	Feb 27 - Mar 5	Connectionism	17 - 18	
9	Mar 6 - 12	Connectionism, cont.	19	
10	Mar 13 - 19	**Spring Break**		
11	Mar 20 - 26	Ecological Psychology	20	
12	Mar 27 - Apr 2	Embodied Cognition	21 - 22	
13	Apr 3 - 9	Dynamical Systems	23 - 25	
14	Apr 10 - 16	Extended Cognition	26 - 28	A
15	Apr 17 - 23	Enactivism	29	B
16	Apr 26 - May 2	**Finals Week**	17 - 29	A - B

Assignment Schedule

Assignment	Material	Dates
Quiz 1	Readings 1 - 7; lecture slides	12:00 pm, Mon, Jan 16 - 11:59 pm, Sun, Jan 22
Quiz 2	Readings 8 - 10; lecture slides	12:00 pm, Mon, Jan 23 - 11:59 pm, Sun, Jan 29
Quiz 3	Readings 11 - 16; lecture slides	12:00 pm, Mon, Feb 13 - 11:59 pm, Sun, Feb 19
Exam 1	Readings 2 - 16; lecture slides	Assigned: 12:00 pm, Mon, Feb 20 Due: 11:59 pm, Sun, Feb 26
Paper 1	Readings 2 - 16; lecture slides	Assigned: 12:00 pm, Mon, Feb 6 Due: 11:59 pm, Sun, Mar 12
Quiz 4	Readings 17 - 22; lecture slides	12:00 pm, Mon, Mar 27 - 11:59 pm, Sun, Apr 2
Quiz 5	Readings 23 - 28; lecture slides; media A	12:00 pm, Mon, Apr 10 - 11:59 pm, Sun, Apr 16
Paper 2	Readings 17 - 29; lecture slides; media A - B	Assigned: 12:00 pm, Mon, Mar 20 Due: 11:59 pm, Sun, Apr 23
Exam 2	Readings 17 - 29; lecture slides; media A - B	Assigned: 12:00 pm, Mon, Apr 24 Due: 11:59 pm, Sun, Apr 30

Readings
1. Syllabus
2. Bird (2011) Thomas Kuhn_SEP
3. Marr (1982.2010) Three Levels
4. Thagard (2010) Cognitive Science
5. Chemero (2009) Ch 1 Hegel Behe Chomsky Fodor
6. Thagard (2005) Ch 1 Representation Computation
7. Rescorla (2015) Computational Theory Mind_SEP
8. Thagard (2005) Ch 2 Logic
9. Thagard (2005) Ch 3 Rules
10. Thagard (2005) Ch 4 Concepts
11. Pitt (2012) Mental Representation_SEP
12. Von Eckardt (1995) Ch 4 Representation General
13. OBrien & Opie (2004) Notes Toward Structuralist Theory Mental Representation
14. Haugeland (1985) Ch 1 Artificial Intelligence Introduction
15. Searle (1990) Is Brains Mind Computer Program
16. Churchland & Churchland (1990) Could Machine Think
17. Thagard (2005) Ch 7 Connections
18. Rumelhart (1989) Architecture Mind Connectionist Approach
19. Fodor & Pylyshyn (1988) Connectionism Cognitive Architecture
20. Richardson et al (2008) Ecological Psychology Principles Embodied
21. Brooks (1991) Intelligence without representation
22. Foglia & Wilson (2013) Embodied cognition
23. Van Gelder (1995) What Might Cognition Be If Not Computation
24. Riley & Holden (2012) Dynamics Cognition
25. Clark (1997) Dynamical Challenge
26. Clark & Chalmers (1998) Extended Mind
27. Favela & Chemero (2016) Animal-Environment System
28. Favela & Martin (2016) Cognition Dynamical Cognitive Science
29. Thompson (2007) Enactivism Autopoiesis

Media
A. Clark (2014) Extended Mind <www.hdc.ed.ac.uk/seminars/extended-mind>
B. Thompson interview (2012)—COSTS $1.00 for audio and $1.00 for transcript at http://brainsciencepodcast.com/bsp/mind-in-life-with-evan-thompson-bsp-89.html

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Please fill out and sign this sheet once you have read the syllabus, detach this page, and turn it in to the professor during the first week of class—or, if you transferred in late, by the end of that week.

I have read the syllabus. I understand and agree to follow all course policies in the syllabus.

Name: _____

Student ID #: _____

Signed: _____ Date: _____