

**Philosophical Aspects of Cognitive Science (01:730:360)**  
***Crosslisted as: Advanced Topics II, Philosophical Aspects of Cog Sci (01:185:412:01)***  
Spring 2023, Prof. Pietroski  
MTh 12:10-1:30 pm (Campbell A5)  
Canvas Site: TBA

**Contact Information**

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Office Hours: TBA

*Any announcements about the class will be made via the course website.*

**Short Course Description**

The broad goal is to illustrate some foundational issues in cognitive science by focusing on some questions that quickly arise when one tries to study the spoken or signed languages that human children naturally acquire. What *are* these languages, and what is it to *acquire* one? In what sense, or senses, are these languages distinctly human? What kinds of cognitive resources do children need to acquire such languages? Is “human linguistic cognition” importantly different from other forms of animal cognition, and if so, how? Noam Chomsky’s early work in linguistics will figure prominently in the course, as will Alan Turing’s notion of computation. But we will also be reading work by other cognitive scientists and philosophers, including Randy Gallistel and Jerry Fodor, who taught at Rutgers.

**Required Reading**

a series of articles/essays that will be made available via the course website

**Course Requirements and Grading**

- (a) Two three-page essays in response to topics announced on Wednesdays, starting Jan. 26
  - the first essay will be rewritten in light of comments
  - each version of the first essay (original and rewrite) is worth 10% of your final grade
  - the second essay is worth 20% of your final grade
  - you must submit your first essay by **Feb. 16** and your second essay by **March 9**
  - rewrites of the first essay are due on **March 9**
- (b) a take-home exam worth 30% of your final grade
  - the exam will be **distributed on April 11 and due April 18**
  - it will be like a final exam in terms of length and the kinds of questions asked
- (c) a final project (e.g., a term paper) worth 30% of your final grade
  - Details and examples of possible projects will be discussed in class
  - You will need to clear the general topic with me by **April 20**
  - By **April 27**, you must submit a two-page plan that describes the central question you want to address and includes an outline of the project you are working on
  - Due Date: the day before our scheduled exam slot; but if we get an early slot,  
I may extend that deadline, depending on when grades are due
- (d) late work will be penalized one full grade (e.g., ‘B’ to ‘C’) per calendar day
- (e) regular attendance and participation can help your final grade as extra credit (1-2 points).

## Other Links and Information

Rutgers has a detailed policy on Academic Integrity and Code of Student Conduct:

<http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers>

Please familiarize yourself with this policy. If you have any questions about what counts as plagiarism (cheating, etc.), talk with before submitting work for grading.

We'll talk explicitly in class about some of the things that are OK, and some that are not-OK, in the context of discussing experimental design and jointly authored work.

Cognitive Science Club:

<http://ruccs.rutgers.edu/ruccs/index.php/opportunities/cogsci-club>

### *Student-Wellness Services*

Just In Case Web App: <http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS) (848) 932-7884

17 Senior Street, New Brunswick, NJ 08901

<http://www.rhscaps.rutgers.edu>

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students efforts to succeed at Rutgers.

Violence Prevention & Victim Assistance (VPVA) (848) 932-1181

3 Bartlett Street, New Brunswick, NJ 08901

<http://www.vpva.rutgers.edu>

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty.

Disability Services (848) 445-6800

<https://ods.rutgers.edu>

Rutgers welcomes students with disabilities into all of the educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the office, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>

Scarlet Listeners (732) 247-5555

<http://www.scarletlisteners.com>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

### ***Tentative Class Schedule***

Assigned reading for each week is indicated by author name; see the Canvas site for details.

Jan 19: Introduction...Ants, Bees, Birds, and Human Children

Jan 23, 26 (by zoom): Turing Machines, Basics (on-line resources, see the Canvas site)

Jan 30, Feb 2: Turing Machines and the Computational Theory of Mind (SEP entries)

Feb 6, 9: Ants and Bees (Gallistel-1)

Feb 13, 16: Recursion and *Syntactic Structures* (Chomsky-1)

Feb 20, 23: *Syntactic Structures* and Plato's Problem (Chomsky-2)

Feb 27, Mar 2: *Syntactic Structures* and The Chomsky Hierarchy (Chomsky-3)

March 6, 8: Turing Machines, Recursion, and The Hierarchy (Catch Up & Half-Time Review)

#### **Spring Break**

March 20, 23: *Modularity of Mind*, Round One (excerpts, Fodor-1)

March 27, 30: *Modularity of Mind*, Round Two (excerpts, Fodor-2)

April 3, 6: finish *Modularity of Mind*, and time permitting, Propositional Attitudes (Fodor-3)

April 10, 13: Round Two Bees and Birds (Gallistel-2)

April 17, 20: Dolphins (Herman)

April 24, 27: Faculty Disputes (Collins)

May 1: Wrap Up