

Syllabus

Advanced Topics in Cognitive Science

01: 185: 411

Logistics

- Class: TUES 10.20–1.00 PM, RC - 2, LIVINGSTON
- Recitation: THURS 10.20–11.40 AM, LUCY STONE HALL, B117
- Faculty Organizer: MARY RIGDON
 - Email: mrigdon@rci.rutgers.edu
 - Office: A103 Psychology Building Annex, Busch Campus
 - Office Hours: TBA AND BY APPOINTMENT
 - RuCCS Business Office: 848-445-1625
- Teaching Assistant: CHRISTINA BOYCE-JACINO
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 - Office: PSYCHOLOGY BUILDING, ROOM 221, BUSCH CAMPUS
 - Office Hours: TBA AND BY APPOINTMENT

Course Description

This course is an introduction to the field of Cognitive Science. To capture the interdisciplinary nature of this field, we will address a range of topics and research programs from a variety of disciplines, including philosophy, computer science, cognitive psychology, behavioral economics, and linguistics. Each week

features a new speaker from the Center for Cognitive Science. The last page of the syllabus provides a schedule. If you open the syllabus using a document preview, clicking on the speaker's name will bring up his/her webpage.

The goals of this course are to introduce you to the foundations of Cognitive Science, help you appreciate the development of this field over the years, and allow you to explore the investigations and lively debates that have taken place within and across the disciplines that make up the field.

The pre- or co-requisite is having successfully completed a course in computer science, linguistics, philosophy, or psychology or being assigned a permission number. This course counts for 4 credits.

Course Objectives

Upon successful completion of the course, students will:

- learn in more detail what Cognitive Science is as a discipline.
- be able to critically review a research article, and use this skill to keep up with current information and to read critically other material as well.
- become familiar with Rutgers faculty and their research, and to use that as a foundation for doing undergraduate research and/or an individualized major.
- learn to extrapolate from and expand upon information learned in the class in order to apply it to other areas in Cognitive Science and science in general.
- be able to read and discuss research papers from multiple disciplines.

Required Readings

There is no textbook for this course. The required readings will be posted in the Resources Section on the Sakai website for this course by the date and speaker. You will receive an email from Sakai once the readings are posted. Please be sure to check your email! Most listed readings will be articles by the faculty who will give the lecture for a given date. You are required to read the paper(s) *before* class and then *re-read it* after the lecture in time for recitation on Thursday of the same week. You will receive a set of Discussion Questions

based on the readings for each lecture that will be used for discussion during recitation. Please come to recitation prepared to discuss the answers.

Evaluation

There will be a total of 1000 points possible in this course.

- Attendance/Participation (30%) (300 points): Come to class and recitation prepared and ready to participate. Both are an integral part of the course. Each lecture and each recitation is worth 15 points starting the second week of classes. You may **miss two lectures for any reason** without it impacting your grade. You may **miss two recitation sections for any reason** without it impacting your grade. NOTE: If you are more than 10 minutes late to lecture or recitation, you will not be able to sign in and will be marked absent.
- Short Critical/Analytic Assignments (40%) (400 points): You will complete two short critical/analytic take-home assignments related to the material covered in lecture. Each week you will receive a set of Discussion Questions based on the readings and lecture. You are to choose **two questions** to answer from **two different lectures** in a short and concise manner (e.g., approximately 500 words each). Your answers are to be in your own words and your own work. Please submit your answers via Sakai under Assignments **in .pdf** form. The first is due by Tuesday **8am on March 7** and the second is due by Friday **1pm on May 5**. Every day that an assignment is late *for any reason* will result in an automatic one-grade reduction (A to B to C etc.). NOTE: please include **your last name in the file name** for both assignments!
- Paper (30%) (300 points): A paper is required for this course. Choose a highly focused topic and conduct a thorough literature review on that topic using a reasonable selection of research articles (8-20 sources). The paper should be 10-15 pages in length, double-spaced, 12 point font. If you email a draft to Christina and me by **5pm on April 1**, we will read it, without prejudice, and make suggestions for you to use in your final version. The final (be it the first or revised) draft is due by Tuesday **8am on April 25**. Your grade on this paper will be based only on the final draft. Every day that a paper is late *for any reason* will result in

an automatic one-grade reduction (A to B to C etc.). NOTE: I have posted several guides for writing on Sakai under Resources that is required reading.

- Extra Credit Options (9 possible points): (1) I am always on the lookout for good cartoons to use as examples in class. Any student who brings a cartoon that is relevant to a point discussed in class along with a paragraph describing why it is relevant will have 9 points added to your final grade. Credit for a particular cartoon will be given only to the first student bringing in that cartoon. (2) A number of researchers in Linguistics conduct experiments that are relevant to the material covered in this class. You have the opportunity to participate in at most 3 experiments for 3 points each added to your final grade. Information for accessing the subject pool is available on Sakai under Resources. You must select one course to designate as the one for which you will receive the credit. Note: you can only select one course and that will be the one in which you receive the extra credit points. We will be notified about your participation automatically. If you sign up for, but fail to show up for two or more experiments, you may be barred from further participation, so please note the time and location of your experiments, and take your schedule and transportation time into account. Most labs are on Busch in RuCCS. (3) If neither of these options interest you, please contact me as soon as possible for another alternative for extra credit. It will involve a reading and writing assignment for a possible 9 points.

No Computers or Phones

Please turn off all computers and cell phones while in the classroom. Please see the following article in the Chronicle by Professor Anne Curzan (August 25, 2014) “Why I am asking you to not use laptops”

<http://chronicle.com/blogs/linguafranca/2014/08/25/why-im-asking-you-not-to-use-laptops>

Rutgers Policy on Academic Integrity

Rutgers has a clear policy on Academic Integrity with very low tolerance for any form of cheating or plagiarism. This policy will be adhered to strictly. Please be sure to acquaint yourself with this policy: <http://academicintegrity.rutgers.edu/>

`academic-integrity-at-rutgers`. Violations include cheating, fabrication, plagiarism, denying information to or misleading others, or facilitating these violations. A useful interactive tutorial on plagiarism can be found here: <http://library.camden.rutgers.edu/EducationalModule/Plagiarism>

Accommodations for Students with Disabilities

Students with disabilities requesting accommodations must follow the procedures outlined at <https://ods.rutgers.edu/students/registration-form>. Full disability policies and procedures are at <https://ods.rutgers.edu>

Additional Seminars this Term

RuCCS hosts a weekly seminar series you may find interesting that features distinguished speakers. The talks are Tuesdays 1-2:30pm in Psychology 101. For a schedule: <http://ruccs.rutgers.edu> under “Talks, RuCCS Colloquia”

Get Involved with Cognitive Science Club!

Find information on the exciting events being organized by the Cognitive Science Club: <http://ruccs.rutgers.edu/academics/cogsci-club>.

Like them on Facebook to get updates: <https://www.facebook.com/RUCogSciClub>

Name & Contact Info of 2 Students

Use the space below to exchange names and contact information of 2 students to contact and that can contact you with questions about the course.

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Date	Lecturer	Topic	Due
January			
17	Mary Rigdon	Introduction	
24	Frances Egan	Computational Theory of Mind	
31	Brian McLaughlin	Inverse Problem in Vision	
February			
7	Manish Singh	Visual Intelligence	
14	Melchi Michel	Perceptual Organization	
21	Thomas Papathomas	Visual Illusions	
28	Stephen Stich	Moral Psychology	
March			
7	Gretchen Chapman	Medical Decision Making	Assign #1 due by 8am
14	SPRING BREAK		
21	Vladimir Pavlovic	Computer Science	
28	Mubbasir Kapadia	Simulating & Animating Autonomous Virtual Humans	
April			
4	Bruce Tesar	Phonology	
11	Mark Baker	Comparative Syntax	
18	Craige Roberts	Semantics/Pragmatics	
25	Brian Keane	Perceptual Organization & Neural Implications	Paper due by 8am
May 5			Assign #2 due by 1pm