

# Senior Seminar Course in Cognitive Science CLPS1900

MWF 1-1:50, Metcalf 103

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Brown considers this a capstone course. To my mind that image suggests that you have such a thorough education that you never need to learn anything about cognitive science again. Judging by some graduates, this suggestion is taken quite seriously.

Whatever your interpretation, this course has a number of aims and meta-aims.

A few years ago the Cognitive Science faculty made suggestions for papers and books that the well-educated cognitive scientist should have read. Not surprisingly, every faculty member had a different set of suggestions. The results are given in the **17 page** document entitled **Core Readings in Cognitive Science** that I will email the class. The faculty member who suggested the entry is at the end of it with their initials in [square brackets]. (Some initials have left.)

## **Major Class Requirements:**

### **Seminar Oral Presentation**

Oral presentation and group discussion of a scientific paper is a classic way for learning to think about a topic. This format goes back to 19<sup>th</sup> Century Germany where our current model of graduate education was developed.

We will roughly follow that format. Each student in the class has to present several papers in seminar format.

They can come from three sources:

The Classic Paper list. Sure winners, but maybe a little pedestrian.

Your Own Choice. I assume you are here because some part of Cognitive Science interested you. A good paper to choose is one that you found really interesting and exciting and want to tell others about it. Such a paper could either be:

- The one that first got you interested in Cognitive Science.
- Or current research that you think is terrific.
- Or your own research for a thesis or paper or whatever.
- One someone recommended highly.

This year we have 13 students enrolled. We have a little over 30 open slots **so every class member must give at least three paper presentations. Joint presentations are allowable and even desirable with proper pre-planning.**

A MWF class at Brown lasts about 45 minutes. Therefore we will need a presentation plus discussion that takes about this amount of time. It is very much to your advantage to say outrageous things to get people talking. The more they talk the less you talk.

Talk times will be assigned by volunteering but random assignment can be used if necessary. Don't put off all your presentations to the end of the term. You will not be happy with the results.

You can swap times with others as long as I know about it and the papers get posted properly. Talks may not be skipped without very compelling excuses. A skipped talk will be rescheduled.

The best way to make sure everyone has seminar papers is by email.

PowerPoint is highly recommended as a way of organizing your thoughts and presenting graphics. The defects of PowerPoint are well known so avoid them:

- Too many bullet points,
- Superficiality,
- Graphical clutter,
- Small type,
- Etc.

One pedagogical function of this class is to give practice in short oral presentations, an essential life skill for almost any future career a Brown student is likely to embark upon.

A good seminar presentation for the class will contain an **initial section** explaining why someone on the faculty thought highly enough of the paper to place it in Core Readings, and, for the older papers, its place in the **history** of the field. Or, if you are talking on a paper of your own choosing, why you thought it was worth discussing.

You should try to **say something positive** about the reading you are presenting. It is easy to find fault with published research, especially older and/or very original work. (Some folks can make an academic career doing this. We don't like them.) Your job is **point out the good parts** as well as **places where the paper may fall short**.

It is the responsibility of the student to choose amount of material and depth of analysis so as to make the presentation an **integrated and esthetically appealing whole**. Obviously it is not possible to present an entire book, but a chapter can be fine.

**Science** and **Nature** papers are notoriously compressed and hard to read for those outside the exact area the papers cover. If you present such a paper, take care to adequately unpack the text and provide necessary background.

It is OK to present videos from a journal website or from YouTube or wherever if it is pertinent.

As I mentioned, encourage discussion and leave sufficient time for it. If the audience starts to argue, encourage it and you don't have to talk as much. (This is also a good strategy for passing oral exams, btw.)

Detective work: Some of these papers are NOT available right now in electronic form. However because they are (mostly) well known you should be able to find them on the Web or from the Brown library. One of the presenter's job is to make sure that everyone gets a copy. The faculty member [INITIALS] who suggested the paper may also be able to help. If you can only come up with a paper version it

can be scanned. When you have an electronic version send it to the class and me by email.

### **Guest Lectures**

Previous versions of this course had occasional faculty lectures designed to present overviews of their area. I hope to continue this tradition if we have enough time.

### **Term Paper**

A term paper on a topic that interests you is required. This may be or (preferably) may not be a more detailed analysis of the paper you presented.

You can talk to me about topic choice but I won't tell you what to write about. I want to be entertained and surprised so tell me something about {cognitive, neuro, or computer} science that I do not know. I will thank you for it with a good grade.

More traditional topics are OK but I will not think highly of you if I get yet another paper on the architecture of V1.

Questions about term paper format and size will be rudely rejected.

**2013 Schedule, CLPS1900, MWF 1-1:50, Metcalf 103**

**January** Wed 23 Class Organization  
Fri 25 Paper Scheduling, start of tendentious  
topics discussion.

Mon 28 Continuation or talk or TBD.  
Wed 30 \_\_\_\_\_  
**February** Fri 1 \_\_\_\_\_

Mon 4 \_\_\_\_\_  
Wed 8 \_\_\_\_\_  
Fri 10 \_\_\_\_\_

Mon 11 \_\_\_\_\_  
Wed 13 \_\_\_\_\_  
Fri 15 \_\_\_\_\_

Mon 18 (Long Weekend)  
Wed 20 \_\_\_\_\_  
Fri 22 \_\_\_\_\_

Mon 25 \_\_\_\_\_  
Wed 27 \_\_\_\_\_  
**March** Fri 1 \_\_\_\_\_

Mon 4 \_\_\_\_\_  
Wed 6 \_\_\_\_\_  
Fri 8 \_\_\_\_\_

Mon 11 \_\_\_\_\_  
Wed 13 \_\_\_\_\_  
Fri 15 \_\_\_\_\_

Mon 18 \_\_\_\_\_  
Wed 20 \_\_\_\_\_  
Fri 22 \_\_\_\_\_

Mar 25, 27, 29 Spring Break

**April** Mon 1 \_\_\_\_\_  
Wed 3 \_\_\_\_\_  
Fri 5 \_\_\_\_\_

Mon 8 \_\_\_\_\_  
Wed 10 \_\_\_\_\_  
Fri 12 \_\_\_\_\_

Mon 15 \_\_\_\_\_  
Wed 17 \_\_\_\_\_  
Fri 19 \_\_\_\_\_

Mon 22 \_\_\_\_\_  
Wed 24 \_\_\_\_\_  
Fri 26 \_\_\_\_\_

Mon 29 Term paper topic presentations (5 minutes each)