Course Objectives

At the end of this course, you should be able to:

1. Critically assess popular media reports on research developments in language and the brain;
2. Read and understand primary source literature and critically evaluate what you read in the light of previous research;
3. Compare converging sources of evidence across methodologies in order to arrive at (at least partial) answers to questions of interest in this area;
4. State the implications of such research for fundamental issues in cognitive science and linguistics.

Additional goals for the course:

a. Familiarize all majors with basic concepts of neuroscience and with broader issues of mental representation within cognitive science, and
b. Familiarize non-linguistics majors with basic issues in linguistics

Course Structure, Requirements and Policies

The Readings

The readings will be available via the reserve system at the library. There will be physical copies on reserve in the library itself as well as electronic copies available to download via the eReserves system. The eReserves system is available to any computer on campus without any extra fussing. Off-campus computers can also use eReserves when a proxy is setup. The url for eReserves is:

http://reserves.ucsd.edu/eres/default.aspx

For information about setting up a proxy server in order to access eReserves from off-campus, see http://resnet.ucsd.edu/body_webproxy.html. I will provide more information on the website if people are having trouble – setting up a proxy also allows people to have access to other good resources, and so is worth the investment in time to get it set up!

Many of readings in this class will not be easy going because they will be from primary sources; for certain subjects there is little secondary literature to speak of because the field is in such tremendous flux and expanding so rapidly. Therefore give yourself ample time for the readings; some of it will be technical and is not something that you can just skim through.

The readings should be done by the class following when they are assigned. Because the readings will be challenging, the first part of each class will be reserved for questions about any of the readings (or lectures!) from past classes. This is your chance to make sure you’ve understood what we’ve been talking about and I highly encourage people to take advantage of this. Of course, if at anytime the reading seems to be too much or too difficult, please let me know, either individually or as a group.

Exams
There will be both a take-home midterm and a take-home final. The midterm will be due at the beginning of class on Tuesday, November 2nd, and the final will be due by 5:30pm on Tuesday, December 7th (the day our final exam is scheduled for). Each exam will count for 50% of your grade. Cheating on either of the exams will result in no credit for the exam in question, and you will be referred to your dean for disciplinary action. This is university policy and there will be no exceptions. PLEASE NOTE: If you hand in an exam that resembles an exam handed in by anyone else in this class or in previous classes like this one, that constitutes cheating. Therefore, all written work must be your own and no one else’s. Cheating undermines the value of everyone’s education, and you should know that I feel very strongly about this issue and that I will handle all cases of cheating accordingly. I truly hope there will be no cause to discuss this issue any further this quarter, but if there is, I will strictly adhere to the policy outlined in this paragraph without exception.

(Tentative) Syllabus and Readings

<table>
<thead>
<tr>
<th>Week 0: Details of the class and overview of major issues</th>
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<tr>
<td><strong>9/23 (TH):</strong> Syllabus</td>
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<td><strong>9/28 (T):</strong> Basic Neuroanatomy</td>
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<td><strong>9/31 (TH):</strong> Lateralization of function</td>
<td>Methodologies used to study brain function</td>
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Also Recommended:

### Week 2: What is learned from when language goes wrong

**10/5 (T):** Aphasias

Readings:

**10/7 (TH):** Dyslexia and Inherited Speech/Language Disorder

Readings:

### Weeks 3 & 4: Language representation in the brain

**10/12 (T):** The Organization of Language in the Brain

Readings:

Also recommended:
10/14: (TH): Bilingualism and the Brain

Readings:

Also Recommended

10/19 (T): Language in a different modality: The Neural Representation of ASL

Readings:

10/21 (TH): Origins and Evolution of Language

Readings:

Weeks 5-9: How does the brain process language in real time?

10/26 (T): Bigger issues revisited
Single word processing: Evidence from fMRI and ERPs

Readings:
10/28 (TH): PET and fMRI Studies of Sentence Processing

Readings:
- TBA

11/2 (T): MIDTERM EXAMS DUE

ERP studies of semantic processing, part 1 (Semantic anomalies)

Readings:

11/4 (TH): ERP studies of semantic processing, part 2

(Word Expectancy, Semantic Association
Word Position, Frequency, and Class Membership)

Readings:

11/9 (T): A little more about the N400, Discourse contexts

Readings:

11/11 (TH): NO CLASS
11/16 (T): What about syntax? ERP Studies of Syntactic Violations

Readings:

11/18 (TH): More about syntactic processing: ERP studies of syntactic difficulty

Readings:

11/23 (T): Linguistic dependencies and working memory

Readings:

11/25 (TH): NO CLASS

11/30 (T): When and where united? Proposals for syntactic processing

Readings:

12/2 (TH): Wrap-up & review

Week 10: Putting it all together