Neurobiology of Cognition
Fall Quarter 2008  TuTh 2:00-3:20 pm CENTR 214

Instructor
Jaime A. Pineda
Office: CSB 205
OH: Tu 9-11 am (or by appointment – 534-9754)
Email: pineda@coqsci.ucsd.edu

Teaching Assistant/Instructional Assistant
Steve Barrera - TA
janet Kwok - IA
Office: CSB 131 CSB 205
OH: W 12-1 pm M 4-5 pm
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Sections
W 10-10:50 PCYNH 120
W 11-11:50 PCYNH 120
W 9-9:50 PCYNH 120

What
Website: Please visit class website for critical announcements, copies of overheads, quizzes, and old
exams from previous years: http://bci.ucsd.edu/~pineda/COGS17/index.html

When and Where
This course begins on September 25 and lasts until December 11, 2008.
All lectures will be held TuTh from 2:00-3:20 pm in CENTR 214.
See table above for when and where sections are held and which TA/IA leads the section.
The midterm exam will on Thursday October 30 in class from 2:00-3:20 am in CENTR 214.
The final exam will be on Thursday December 11 from 3-6 pm. in CENTR 214.

All lectures will be podcast to http://podcast.ucsd.edu

Grading
Grades will be based on six quizzes (we will drop the lowest score and count 5 of the quizzes - each
worth 6% for a total of 30% of the final grade, a midterm worth 35% of the final grade, and a final
exam worth 35% of the final grade.

All students must complete a two-hour experiment requirement (https://experimetrix2.com/ucsd/). As
an alternative to experimental credit, you can summarize two scientific articles or attend two scientific
talks on campus (1 article = 1 hour of talk = 1 hour of experiment).

Quizzes are given in class (on Tuesdays) and will cover the previous week’s lectures and readings. In
other words, you are responsible for any lectures and readings since the last quiz. No makeup
quizzes will be allowed unless there is a valid excuse.

The final exam will NOT be comprehensive. Both midterm and final will include questions from the
lectures and textbook.
Sections
You are required to attend sections. If you cannot make the section please make other arrangements in advance with the TA or IA. If you miss your section that week, you must check with TA/IA before you go to another section.

Course Goals
The goal of this course is to introduce students to cognitive neuroscience. By the end of this course, students should:
- Understand how the brain communicates at a cellular level: the basics of how neurons communicate with each other, a few neurotransmitters involved and how drugs can affect them, and how activity of small groups of neural circuits can produce behavior and perception.
- Identify major regions of the brain and describe what they do.
- Describe some common methods used by cognitive neuroscientists to learn more about the brain.
- Talk intelligently about major cognitive phenomena like sleep, memory, emotion, and language from a behavioral AND neural perspective. What is the brain doing to make these systems work?

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<thead>
<tr>
<th>Week</th>
<th>Lecture Topics</th>
<th>Readings</th>
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<tbody>
<tr>
<td>0</td>
<td>9/25 Introduction to class</td>
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<tr>
<td>1</td>
<td>9/30-10/2 What's a Brain?</td>
<td>Txt: Chapters 1,2</td>
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<td>2</td>
<td>10/7-10/9 Electricity and Structure</td>
<td>Txt: Chapter 3</td>
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<td>3*</td>
<td>10/14-10/16 The Chemical Soup</td>
<td>Txt: Chapter 4</td>
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<td>4*</td>
<td>10/21-10/23 Peeking Inside the Head</td>
<td>Txt: Chapter 5</td>
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<td>5</td>
<td>10/28-10/30 How do we see?</td>
<td>Txt: Chapter 6</td>
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<td>Midterm</td>
<td>October 30 (in class)</td>
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<td>6</td>
<td>11/4-11/6 Why Do We Sleep and Dream?</td>
<td>Txt: Chapter 9</td>
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<td>7*</td>
<td>11/11-11/13 Why Sex and Emotions Are Necessary</td>
<td>Txt: Chapters 10,11</td>
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<td>Veteran's Day is 11/11</td>
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<td>8*</td>
<td>11/18-11/20 Can You Remember My Name?</td>
<td>Txt: Chapter 13</td>
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<td>9*</td>
<td>11/25-11/27 Hello… How are You?</td>
<td>Txt: Chapter 14</td>
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<td>Thanksgiving Day is 11/27</td>
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<td>10*</td>
<td>12/2-12/4 The Brain Gone Bad</td>
<td>Txt: Chapters 16, 17</td>
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<td>Final</td>
<td>December 11 3-6 pm (in class)</td>
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Asterisks (*) indicate the weeks when quizzes will be given.

Academic Integrity
Academic integrity is expected at all times and cheating will not be tolerated. You are encouraged to study and confer with your classmates, but quizzes, midterm, and final must be completed alone. Plagiarism and the changing of answers on returned exams will result in automatic failure of the course. If you have any questions please visit [http://www-senate.ucsd.edu/manual/appendices/app2.htm](http://www-senate.ucsd.edu/manual/appendices/app2.htm)