# Class Overview

**Boyle-COGS107A – Summer Session 1-201**

**Lectures:** 11:00 – 1:50p CSB 004  
**Section/Lab:** 10:00 – 10:50p TTH CSB 115

**TA:** Megan Bardolph  mbardolp@ucsd.edu

**Webpage:** [http://www.cogsci.ucsd.edu/~mboyle](http://www.cogsci.ucsd.edu/~mboyle)

**Course:** Neuroscience: Exploring the Brain 3rd Ed.  
Mark F. Bear, Barry W. Connors, Michael A. Paradiso

**OH:** TBA CSB115 & 130

**NEURON Simulation Environment:**  [http://www.neuron.yale.edu/neuron/](http://www.neuron.yale.edu/neuron/)

## Week Schedule

<table>
<thead>
<tr>
<th>Week #</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
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</table>
| 1      | Reading: Ch2  
Lecture-1: Neurons and Glia; Introduction to NEURON  
Section/Lab: NO LAB/SECTION on FIRST DAY! | Ch2 Finishing Ch2 and starting Ch3  
Neuron at Rest | Introduction to Neuron  
Getting Neuron to Run  
The Membrane Potential |  |
| 2      | Reading: Ch3  
Lecture-1: Neuron at Rest  
Lecture-2: HH – Equivalent Circuit  
Section/Lab: Equilibrium Potentials | Ch4 The Action Potential  
TEST1-CH2 | The Na Action Potential |  |
| 3      | Reading: Ch5  
Lecture-1: Synaptic Transmission  
Lecture-2: Threshold: To Fire or Not to Fire | Ch6 (part 1) Neurotransmitter Systems pp.133—150  
TEST2-CH3&4 | The passive Axon |  |
| 4      | Reading: Ch 6 (pp 150-166) Ch 8  
Lecture-1: The Chemical Senses – Taste  
Lecture-2: NMJ | Ch8 (Smell) The Chemical Senses – Smell  
TEST3-CH5&6 | Axon Diameter and Conduction Velocity |  |
| 5      | Reading: Ch 23—pp 704-723 & Ch24 – pp: 726-759  
Lecture-1: Development & Activity-Dependent Synaptic Rearrangement  
TEST4-CH8 |  |

## Grade Determination

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Tests</td>
<td>40%</td>
</tr>
<tr>
<td>Labs</td>
<td>30%</td>
</tr>
<tr>
<td>Final</td>
<td>30%</td>
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<tr>
<td>Extra Credit</td>
<td>1%</td>
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- **Tests:** Wk2, Wk3, Wk4,Wk5 - ON THURSDAYS IN LECTURE 😊  
  Each test will cover the previous week’s material (reading, lecture, lab/section)  
  *We will grant EC for the LOWEST test score!!! 😊*

- **Labs:** Weekly lab assignments

- **Final:** No Cumulative Final – iff the class average for each of the tests (1-4) is =>80%.
  The “final will be on W5 material only.
  Final exam will be on Saturday, August 2 from 11:30-2:30 – cumulative – with emphasis on WK5 material – If you have a conflict please discuss it with me ASAP!

- **Extra Credit:** Up to 4 hours of experiment participation  
Random quizzes administered before lecture on assigned readings.  
Possibility of EC for COGS11 Poster Session - Time and date TBD