NEURL GA-2205: Behavioral & Cognitive Neuroscience

PSYCH GA-2221: Cognitive Neuroscience

Lectures: Mondays and Wednesdays

9:00 am - 10:50 am

815 Meyer

Attendance is mandatory; email me to request excused absence.

Instructor: Clayton Curtis, Ph.D.

Office: 863 Meyer

Phone: 998-3730

Email: clayton.curtis@nyu.edu

Office Hours: Mondays 11:00am – 12:00pm

Reader: The required readings will be a combination of review articles and research papers. These will be made available by PDF download from class website on NYU Classes.

Course evaluation:

The course is designed to not only familiarize yourself with major cognitive and behavioral neuroscience topics and methods, but to prepare you to professionally interact with the cognitive neuroscience community and think critically about research. Two ‘mock’ endeavors are emphasized in the class and form the basis for evaluation, the oral communication of research results and the written
proposal of a research grant. Finally, your ability to critique existing literature will be tested with a written assignment.

**Oral presentations:** Each of you will do a short presentation on one of the class topics. The presentations will be in the form of a conference presentation (15 minute), in which you will present the background and rationale, methods, results, and interpretation of a paper to the class. Afterwards, as a group we will critique the paper’s merits. We will formalize the presentation schedule as the class proceeds. 20% of grade.

**Midterm:** You will have a midterm assignment involving essays. Late essays will be penalized. 20% of grade.

**Final paper:** Your final paper will be in the form of a grant proposal, as if you were applying for a postdoctoral research fellowship (i.e., NRSA) to do research in some area of cognitive neuroscience. Late papers will be penalized. 50% of grade.

**Participation:** You will be responsible for reading the assigned papers, attending all lectures and student presentations, and turning in occasional assignments on time. 10% of grade.

**Lecture Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Topic</th>
<th>Lecturer</th>
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<tbody>
<tr>
<td>1/25</td>
<td>Mon</td>
<td>Introduction</td>
<td>Curtis</td>
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<tr>
<td>1/27</td>
<td>Wed</td>
<td>Neurophysiology of Memory 1</td>
<td>Suzuki</td>
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<tr>
<td>2/1</td>
<td>Mon</td>
<td>Neurophysiology of Memory 2</td>
<td>Suzuki</td>
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<tr>
<td>2/3</td>
<td>Wed</td>
<td>Cellular &amp; Molecular Mechanisms of...</td>
<td>Fenton</td>
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</table>
2/8   Mon  Memory 2  Fenton
2/10  Wed  Student Presentations  Curtis
2/15  Mon  Presidents Day  No Class
2/17  Wed  Human Memory 1  Davachi
2/22  Mon  Human Memory 2  Davachi
2/24  Wed  NRSA preparation 1  Curtis
2/29  Mon  Animal Emotion  LeDoux
3/2   Wed  Human Emotion  Phelps
3/7   Mon  Decision Making 1  Kiani
3/9   Wed  Decision Making 2  Pesaran
3/14  Mon  Spring break  No Class
3/17  Wed  Spring break  No Class
3/21  Mon  Efficient Coding and Value  Louie
3/23  Wed  Learning and Reward 1  Gureckis
3/28  Mon  Learning and Reward 2  Gureckis
3/30  Wed  Student Presentations  Curtis
4/4   Mon  CNS  No Class
4/6   Wed  NRSA preparation 2  Curtis
4/11  Mon  Organization of Visual Cortex  Winawer
4/13  Wed  Object recognition  Winawer
4/18  Mon  Working Memory 1  Curtis
4/20  Wed  Working Memory 2  Curtis
4/25  Mon  Attention 1  Heeger
4/27  Wed  Attention 2  Heeger
5/2   Mon  Student Presentations  Curtis
5/4   Wed  Modeling WM/DM  Ma
5/9   Mon  Student Presentations