Neur 395: Neuroscience Capstone Seminar  
Faculty: Fernan Jaramillo, Sarah Meerts, Julie Neiworth, Matt Rand, Jennifer Wolff  
Meeting: Olin 142  
Tuesdays-Thursdays: 8:30 – 10:00 am, unless specified to start at a different time.  
First 5 weeks of term.

**Purpose:**
The neuroscience concentration is an interdepartmental program administered jointly by the departments of psychology and biology, with additional academic offerings from music, physics, computer science, philosophy, and linguistics. The overall goal of the concentration is to capture the strong interdisciplinary flavor of contemporary study of the nervous system, and to expose interested students to a variety of methods that make up neuroscience inquiry.

The final use of the diverse knowledge you gain by the neuroscience concentration is captured in this seminar. Here the faculty select articles and help to lead discussion around different contemporary issues in neuroscience, broadly defined. Following the faculty-led discussions, a speaker directly related to the topic at hand is invited to present and the class is encouraged to pose questions and engage the speaker in a dialogue about neuroscience.

In the last few years, we have invited graduate students close to completing their PhD’s from the UMN to our course to present cutting edge research on a variety of topics in neuroscience.

**Evaluation:**
The evaluation of your work in this class is based on your attendance, your participation, and your performance on short quizzes or short papers on the presentations and articles. This is an S/CR/NC class that is comprised of 5 weeks of intensive reading and discussing diverse ideas in neuroscience, and our evaluation reflects that.

An “S” grade is achieved by your attendance, class participation, and a passing grade on 3 of the 5 assignments, minimally.
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<tr>
<th>Week</th>
<th>Faculty Moderator</th>
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| March 27-29  | Neiworth          | **TOPIC:** Vision and schizophrenia: Insights into psychosis.  
|              |                   | **Tues:** Speaker Michael-Paul Schallmo  
|              |                   | **Thur:** Discussion of article on visual processes, and additional reading from Julie. |
| April 3-5    | Rand              | **TOPIC:** Drugs of Abuse - Structural vs. Functional Plasticity  
|              |                   | **Tues:** Discussion of articles provided.  
|              |                   | **Thur:** Speaker Eric Miller |
| April 10-12  | Jaramillo         | **Topic:** The requirement of Protein Kinase C-epsilon for spinal analgesic synergy specifically indicates a signaling interaction at the level of the pre-synaptic primary afferent termina.  
|              |                   | **Tues:** Discussion of articles provided.  
|              |                   | **Thur:** Speaker Dan Schuster |
| April 17-19  | Wolff             | **Topic:** The conserved dopaminergic diencephalospinal system mediates vertebrate locomotor development  
|              |                   | **Tues:** Discussion of articles provided  
|              |                   | **Thur:** Speaker Aaron Lambert |
| April 24-26  | Meerts            | **Topic:** Sex, drugs and structural plasticity: maybe mom was right?  
|              |                   | **Tues:** Discussion of articles provided  
|              |                   | **Thur:** Speaker Nancy Michael |