In this graduate seminar, we will read and critique original research articles concerned with the neural underpinnings of perception, with a focus on vision and audition. We will begin with a general discussion of “linking propositions” and then focus on special topics that bridge neurophysiological and perceptual data in different modalities. Students will work individually and in teams to select papers and lead discussions on the following topics:

**Vision**
- Contrast sensitivity and acuity
- Stereopsis
- Motion perception
- Object recognition
- Color perception
- Active vision

**Audition**
- Critical bands and critical ratios
- Pitch perception
- Sound localization
- The precedence effect
- Auditory scene analysis
- Active listening

**Assignments:** Each student will be responsible for selecting/presenting key research articles and leading class discussion on two topics during the course of the semester, preferably one in vision and another in audition. At the end of the semester, each student will submit a 3-5 page reflection paper on a topic in which researchers attempt to relate perceptual states to physiological states. Students are expected to complete all requirements to earn credit for the course.

**Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic/Activity</th>
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<tbody>
<tr>
<td>January 30</td>
<td>Course introduction and organizational meeting</td>
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<tr>
<td>February 6</td>
<td>No class (holiday)</td>
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<tr>
<td>February 13</td>
<td>Discussion of Davida Teller’s “Linking Propositions” (on Canvas)</td>
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<tr>
<td>February 20</td>
<td>Topic 1</td>
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<td>February 27</td>
<td>Topic 2</td>
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<td>March 6</td>
<td>Topic 3</td>
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<td>March 13</td>
<td>Topic 4</td>
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<td>March 20</td>
<td>Topic 5</td>
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<td>March 27</td>
<td>Topic 6</td>
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<td>April 3</td>
<td>Topic 7</td>
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<td>April 10</td>
<td>Topic 8</td>
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<tr>
<td>April 17 (last meeting)</td>
<td>Topic 9</td>
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Recommended Resources

The Ecological Approach to Visual Perception
James J. Gibson
ISBN-10: 1848725787

Visual Perception: Key Readings
Steve Yantis
ISBN-10: 9780863775987

Visual Perception
Tom N. Cornsweet

An Introduction to the Psychology of Hearing
Brian C. J. Moore
ISBN-10: 0125056281

Auditory Scene Analysis
Albert S. Bregman
Cambridge, MA, US: The MIT Press

Fundamentals of Hearing
William Yost
ISBN-10: 9789004236387

An Introduction to the Physiology of Hearing
James O. Pickles
ISBN-10: 9004243771