Sensory Physiology  
Bi353  
Fall Term 2019

Lectures  1-1:50p MWF 166 Lawrence Hall (CRN 11006)

Lab/Discussion Section (CRN 11007)  
Monday 2-3p Hue 129

Lab/Discussion Section (CRN 11008)  
Monday 3-4p Hue 129

Lab/Discussion Section (CRN 11009)  
Monday 4-5p Hue 129

Instructor: Terry Takahashi  
e-mail: terry@uoregon.edu  
phone: 6-4544  
Office hours: after lecture M, W, & by appointment 224 Huestis Hall

GTF: Mr. Nick Sattler  
e-mail: nsattler@uoregon.edu  
phone: 6-6302  
Office hours: Wednesdays; 12-1p KLA 32


Sensory physiology is the study of how information arriving through the sensory organs is processed to produce perception and guide behavior. As you can see from our course schedule below, the emphasis is on the sensory systems that are best understood – somatosensory, auditory, and visual. For each sense modality, we start with the process of transduction, whereby physical energy is converted into neural impulses, and then, attempt to understand the neural basis of perception. In studying perception, we will concentrate on those that are best understood in terms of neural mechanisms.

If you passed this course, you should be able to explain basic sensory transduction and processing in the auditory, somatosensory, electrosensory and visual systems.

The discussion section, held on Fridays, will be spent discussing journal articles and reviewing for tests. The journal articles that we will cover are listed below (see schedule and journal listing below). You are responsible for all material covered in the discussions.

PowerPoint slides are available online. You are encouraged to bring them to class so you can coordinate your notes with the slides.

The University of Oregon is working to create an inclusive learning environment. Please notify me, within the first 2 weeks of class, if you have a disability that could impede your learning experience in this class. Please contact Disability Services for further information (164 Oregon Hall; 6-1155 or disabserv@uoregon.edu). I will work with you and Disabilities Services to help facilitate your learning experience.
Your grade is based on an average of the scores of three tests. The questions will be of the short-answer and multiple-choice types. Materials covered in lecture, readings, and discussions will be covered in the tests. To be successful in this class, you must keep up with the material. If you have any questions, ask immediately. Exams will require a calculator that is not part of a communication device such as a smart phone or tablet.

The grading scale is as follows:

- A 100 - 90
- B 89 - 80
- C 79 - 70
- D 69 - 60
- F Below 59

The exam dates on the schedule (below) are approximate and should not be used to plan trips or events that will cause you to miss class. Exams must be taken at the time and place scheduled. There are no early or make-up exams, except in the case of a medical emergency.

### Approximate Schedule

<table>
<thead>
<tr>
<th>Lec #</th>
<th>Date</th>
<th>Topic</th>
<th>Text chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Monday, September 30, 2019</td>
<td>No lecture</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Wednesday, October 2, 2019</td>
<td>Basic neurobiology</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Friday, October 4, 2019</td>
<td>Basic neurobiology</td>
<td></td>
</tr>
<tr>
<td>Disc.</td>
<td>Monday, September 30, 2019</td>
<td><strong>No Discussion section</strong></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><strong>Monday, October 7, 2019</strong></td>
<td>Basic neurobiology</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Wednesday, October 9, 2019</td>
<td>Somatosensory system</td>
<td>Ch 21-24 pg 384-92</td>
</tr>
<tr>
<td>6</td>
<td>Friday, October 11, 2019</td>
<td>Somatosensory system</td>
<td></td>
</tr>
<tr>
<td>Disc.</td>
<td>Monday, October 7, 2019</td>
<td>Clark et al. '88; Wang et al. '95</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td><strong>Monday, October 14, 2019</strong></td>
<td>Somatosensory system</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Wednesday, October 16, 2019</td>
<td>Somatosensory system</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Friday, October 18, 2019</td>
<td>Auditory system</td>
<td></td>
</tr>
<tr>
<td>Disc.</td>
<td>Monday, October 14, 2019</td>
<td>Review for Test 1</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td><strong>Monday, October 21, 2019</strong></td>
<td><strong>Test 1 (approx date)</strong></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Wednesday, October 23, 2019</td>
<td>Auditory system</td>
<td>Ch 30, 31</td>
</tr>
<tr>
<td>12</td>
<td>Friday, October 25, 2019</td>
<td>Auditory system</td>
<td></td>
</tr>
<tr>
<td>Disc.</td>
<td>Monday, October 21, 2019</td>
<td>Dean et al. 2005</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td><strong>Monday, October 28, 2019</strong></td>
<td>Auditory system</td>
<td></td>
</tr>
</tbody>
</table>
The University of Oregon is working to create an inclusive learning environment. Please notify me, within the first 2 weeks of class, if you have a disability that could impede your learning experience in this class. Please contact Disability Services for further information (164 Oregon Hall; 6-1155 or disabserv@uoregon.edu). I will work with you and Disabilities Services to help facilitate your learning experience.
Journal Articles (to be updated)

Articles are available as PDFs on Canvas.