FST 620: Advanced Topics in Sensory Science
Winter 2011

Instructor:
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210A Wiegand Hall
737-6507
juyun.lim@oregonstate.edu

Office Hours:
By appointment

Course Format:
Lecture/discussion session: F; 10:00-11:50, Wiegand 238

Credits:
Two credits (with S/U option)

Course Description:
This course deals with current and/or advanced subjects in human sensory science. This includes 1) topics in human flavor perception that covers human psychophysics, neuroscience, and related fields, and 2) sensory evaluation techniques and data handling methods that are advanced in nature. Different points of view regarding above topics will be discussed. There will be no designated lectures and the class will be conducted in the Socratic mode. However, whenever necessary, a lecture will be given at the beginning of the class. Readings and discussion questions will be provided in advance by email as PDFs. There will be two assignments of critique papers. At the end of the course, students will be required to execute a sensory study with instructor’s approval. Students will present their final assignments during the last class.

Prerequisite:
FST 420/520
Note: The course is open to all graduate students majoring in Food Science and related fields. With the permission of the instructor, outstanding undergraduate students with a background in sensory science can also register for this course.

Course Objectives:
• To expand the students’ understanding of human sensory science;
• To expose the student to current topics and controversies in the sensory literature;
• To encourage students to think critically and to take an active role in their education.
Performance Outcomes:

- Should be able to describe or explain new factual knowledge leaned from the reading materials;
- Should be able to summarize overall findings or knowledge of each topic covered during the course;
- Should be able to criticize research papers including experimental approaches, interpretation of results;
- Should be able to formulate own ideas/opinions of various topics covered and to discuss them with the instructor and peer students;
- Should be able to apply the new knowledge and ideas into their own research project.

Course Policies

- **Attendance:**
  Attendance in the class is mandatory. However, if it is necessary for you to miss a class, you have to contact the instructor in advance. In such case, you are also responsible to submit a short paper by answering discussion questions provided for a given topic. The paper is due on the scheduled lecture hour.

- **Weekly assignments:**
  Before each weekly meeting, students should complete the reading assignments and generate his/her answers for the discussion questions.

- **Participation in discussions:**
  Readings should be done well ahead of time. Please don’t wait until the last minute to read the materials as you may have to read more background readings to be able to answer some of discussion questions. Discussion questions will be passed out at the same time with the papers to assist you to identifying critical concepts and preparing for your class participation. Class participation will be monitored and will be graded.

- **Assignments:**
  There will be critique of two papers from the readings or other literature in the field. Work (4 page limit, double space) should be turned in no later than the designated dates before the class starts. Students will also have to write a review paper (20 page limit, double space) or run a sensory study at the end of quarter. A paragraph outlining your paper topic or experiment is due on Monday 5:00 of the 5th week. Students’ presentations will be on the last day of class and the paper is due on Wednesday 5:00 of final’s week. There will be no formal exams.

Assessments of Student Performance

- **Point Breakdown:**
  - Attendance and participation: **20%**
  - Critique of two papers: **40%** (20% for each)
  - Final paper: **40%**
• **Grading**
  
  >90  No less than a A-
  >80  No less than a B-
  >70  No less than a C-
  >60  No less than a D-

**Statement regarding Student with Disabilities**

Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the instructor prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS at 737-4098.

**Expectations for Student Conduct/Academic Honesty**

Participants in this class are expected to conduct themselves as dictated by official Oregon State University policy. Please see the following web page (from OSU Student Conduct & Community Standards) if you are unfamiliar with University expectations in this area, [http://oregonstate.edu/admin/stucon/achon.htm](http://oregonstate.edu/admin/stucon/achon.htm)
<table>
<thead>
<tr>
<th>Wk</th>
<th>Date</th>
<th>Topic</th>
<th>Assignment Due Date</th>
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| 1  | Jan 7 | **Individual differences in taste perception**  
| 2  | Jan 14 | **Taste-taste interaction**  
| 3  | Jan 21 | **Taste-smell interactions in flavor perception**  
| 4  | Jan 28 | **Sensitivity of difference tests**  
- O'Mahony M. (1995). Who told you the triangle test was simple? *Food Qual Pref*, 6, 227-238. | **Critique 1** |
| 5  | Feb 4 | **R-index analysis**  
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>6 Feb 11</td>
<td>Perception of carbonation</td>
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<td>• Simons CT, Dessirier JM, Carstens MI, O'Mahony M, Carstens E. (1999). Neurobiological and psychophysical mechanisms underlying the oral sensation produced by carbonated water. <em>J Neurosci</em>, 19, 8134-8144.</td>
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<tr>
<td>7 Feb 18</td>
<td>Flavor hedonics</td>
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<td>8 Feb 25</td>
<td>Direct vs. indirect scaling</td>
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<td>9 Mar 4</td>
<td>Multidimensional scaling</td>
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<td>10 Mar 11</td>
<td>Final presentation</td>
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<td>11 Mar 16</td>
<td>Final paper</td>
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