

**RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY  
SCHOOL OF ENVIRONMENTAL and BIOLOGICAL SCIENCES**

**Department of Food Science**

<b>COURSE TITLE</b>	<b>Sensory Evaluation of Foods</b>
<b>COURSE NUMBER</b>	11:400:405
<b>CREDITS</b>	3
<b>SEMESTER(S) OFFERED</b>	Fall
<b>CLASS DETAILS</b>	
<p>Mon2 (10:55-12:15) Lecture Food Science Room 101  <u>W2 (10:55-12:15) Lecture/Demonstrations Room 101</u>            W3 (12:35-1:55) Lab – section 1 Room 211            TH5 (3:55-5:15) Lab – section 2 Room 211            W4 (2:15-3:35) Lab- section 3 Room 211</p>	
<b>PREREQUISITE(S)</b>	Statistics 01:960:211, 285 or 401
<b>INSTRUCTOR INFORMATION</b>	
Name	Dr. Beverly Tepper
Phone	(Lab) 848-932-5419
Email	<a href="mailto:btepper@sebs.rutgers.edu">btepper@sebs.rutgers.edu</a>
Office Hours [Day(s) & Time(s)]	Mondays 12:15 – 1:00 pm
Office Address	Room 207 – Food Science Building 65 Dudley Road, New Brunswick, NJ 08901
<b>COURSE DESCRIPTION</b>	
Experience in using the senses as analytical tools. Principles of sensory evaluation of foods, including sample presentation, data recording and analysis, and report writing	
<b>COURSE OBJECTIVES</b>	
At the end of this course, students are expected to obtain the following skills and competencies:	

- Demonstrate a working knowledge of chemosensory theory
- Demonstrate an understanding of the major classes of sensory test methodologies
- Gain skills analyzing and interpreting data from sensory tests
- Demonstrate the ability to work as a team to design and execute a group project
- Develop oral and written communication skills

**PROGRAM LEARNING GOAL (S) SATISFIED BY THIS COURSE:**

**LG # 4. Graduates will demonstrate critical thinking and quantitative reasoning skills to solve technical and applied problems in Food Science.**

**Student Learning Goals and Outcome**

**4.1:** Critically evaluate reports/information in Food Science.

**4.2:** Effectively apply quantitative analytical techniques including statistical analysis principles to problems in Food Science.

**4.3:** Understand the basic principles of sensory analysis and applies those principles to real-world problems.

**4.4:** Apply the principles of Food Science to practical, real-world problems in Product Development.

**4.5:** Proficient in government laws and regulations required for the manufacture and sale of food products.

**FURTHER INFORMATION ON THE COURSE:**

**Texts:**

Meilgaard M, Civille, GV, Carr, BT. 2015. *Sensory Evaluation Techniques*. 5th Ed., CRC Press, Boca Raton, FL.

Lawless, HT, Heymann, H. 2010. *Sensory Evaluation of Food: Principles and Practices*. 2<sup>nd</sup> Ed. Chapman & Hall, New York. Posted to eCollege.

Laboratory Manual - Purchase from Barnes & Noble Bookstore

Online tutorials:

Taste:

<http://www.biology-pages.info/T/Taste.html>

Smell:

<http://www.biology-pages.info/O/Olfaction.html>

Taste & Smell:

<http://philschatz.com/biology-book/contents/m44764.html>

**Course Requirements:**

Midterm	30% (In-class Exam)
Final	30% (Take Home)
Lab	40% (Lab Reports - 80%, Group Project - 20%)

<b><u>Week</u></b>	<b><u>Topic</u></b>	<b><u>Reading Assignment</u></b>
1	Introduction to Sensory Analysis	Meilgaard - Chapter 1/ Lawless - Chapter 1
2	Taste and Olfaction	Online Tutorials: Taste and Smell
3	Texture and Other Senses/ Psychological factors	Meilgaard - Chapters 3 & 4
4	Taste Genetics and Difference Tests	Meilgaard - Chapter 7 & 8
5	Scaling Techniques/ Statistics I	Meilgaard - Chapter 5, Chapter 14 (Section 14.3)/Lawless - Appendix I
6	Statistics I and <b>Midterm</b>	-----
7	Statistics II	Lawless – Appendix III (to page 719)
8	Descriptive Analysis I	Meilgaard - Chapters 11 & 12
9	Descriptive Analysis II	Meilgaard - Chapter 10
10	Taste Psychophysics	Lawless - Chapter 2
11	Affective Tests	Meilgaard - Chapter 13/ Lawless - Chapter 15
12	Color/Appearance/Advanced Topics Group Project-Proposals Due	Review Meilgaard – Chapter 7

13	<<NO CLASS>> Group Projects	-----
14	<<NO CLASS>> Group Projects	-----
15	Presentation of Group Projects/Final Reports Due	-----

<u>Week</u>	<u>Lab #</u>	<u>Date</u>	<u>Project</u>	<u>Lab Report Points</u>
1	1	M 9/3 W 9/5 W 9/5 or TH 9/6	<b>Labor Day Holiday – NO CLASS</b> Lecture – Intro to Sensory Lab - Intro to Sensory Lab	---
2	2	M 9/10 W 9/12 W 9/12 or TH 9/13	Lecture – Taste and Olfaction Lecture - Taste and Olfaction (cont'd) Lab - Basic Taste and Common Odorants	---
3	3	M 9/17 W 9/19 W 9/19 or TH 9/20	Lecture - Texture and Trigeminal Lecture - Texture and Trigeminal (cont'd) Lab – Texture	---
4	4	M 9/24 W 9/26 W 9/26 or TH 9/27	Lecture /workshop – Taste Genetics Lecture – Overall Difference Tests Lab – Overall Difference Tests	(10)
5	5	M 10/1 W 10/3 W 10/3 or TH 10/4	Lecture –Attribute Difference Tests/Scaling Review of chemosensory perceptions Lab – Attribute Difference/ Scaling	(10)
6	--	M 10/8 W 10/10 W 10/10 or TH 10/11	Lecture – Statistics I <b>Midterm Exam</b> <b>NO LAB</b>	----
7	6	M 10/15 W 10/17 W 10/17 or TH 10/18	Lecture – Statistics II Lecture – Statistics II (cont'd) Lab – Context Effects	
8	7	M 10/22 W 10/24  W 10/24 or TH 10/25	Lecture - Descriptive Analysis I Lab - no lecture <b>(All Sections)</b> - Descriptive Analysis Ballot Development & Training Lab - Descriptive Analysis (cont'd)	(30)

<u>Week</u>	<u>Lab #</u>	<u>Date</u>	<u>Project</u>	<u>Lab Report Points</u>
9	8	M 10/29 W 10/31 W 10/31 or TH 11/1	Lecture - Descriptive Analysis II/ Group Projects Lecture – Psychophysics Lab –Thresholds for Off-tastes	----
10	9	M 11/5 W 11/7 W 11/7 or TH 11/8	Lecture – Psychophysics (cont'd) <b>Group Project Proposals Due – Initial Review</b> Lab – Magnitude Estimation	(15)
11	10	M 11/12 W 11/14 W 11/14 or TH 11/15	Lecture –Affective Tests TBA Lab – Preparing a computerized ballot/ Affective Test	(15)
12	--	M 11/19  W 11/21- & TH 11/22	Lecture-Color/Appearance; Advanced Topics <b>Group Project Proposals – Final Review</b> <b>NO CLASS – NO LAB –Thanksgiving Holiday</b>	----
13	--	Week of 11/26	Group Projects- ongoing	----
14	--	Week of 12/3	Group Projects-ongoing	----
15	--	M 12/10 W 12/12	<b>Group Project - Presentations</b> <i>Group Project - Presentations (cont'd)</i> <b>Final Reports Due</b>	(20)

## STUDENT WELLNESS SERVICES

### **Just In Case Web App** <http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

### **Counseling, ADAP & Psychiatric Services (CAPS)**

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ [www.rhscaps.rutgers.edu/](http://www.rhscaps.rutgers.edu/)

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

### **Violence Prevention & Victim Assistance (VPVA)**

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / [www.vpva.rutgers.edu/](http://www.vpva.rutgers.edu/)

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932- 1181.

**Disability Services**

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at:

<https://ods.rutgers.edu/students/registration-form>.

**Scarlet Listeners**

(732) 247-5555 / <http://www.scarletlisteners.com/>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.