SYLLABUS
NUTRITION: Methods in Sensory Analysis
11:709:443

Professor: Paul Breslin
Class Hours: Monday &Wednesday 10:55-12:15pm
Location: Hickman 114
Prerequisites: 11:709:201, 11:709:255
Readings to be determined.

Office Hours: by appointment
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Course materials: on Sakai

Grades will be based upon class participation (including discussions and questions 10%), quizzes (5%), midterm (35%) and final exams (50%).

Week 1 Class, September 7	Introduction Course Synoposis/ Review of Course Objectives & Measurement and Data Types
Week 2 Classes, September 12, 14	Introduction to Quantitative Variation and Statistics Taste Biology and Sensation I
Week 3 Classes, September 19 &21	Taste Biology and Sensation II Taste Biology and Sensation III
Week 4 Classes, September 26 & 28	Olfaction and Sensation I Olfaction and Sensation II
Week 5 Classes, October 3 & 5	Olfaction and Sensation III (RH) Somatosensation I
Week 6 Classes, October 10 & 12	Somatosensation II Sensory Coding (YK)
Week 7 Classes, October 17 &19	**Mid-Term Exam** Introduction to Psychophysics
Week 8 Classes, October 24 & 26	Psychophysics: Sensitivity Measurement Psychophysics: Discrimination Testing
Week 9 Classes, October 31 & November 2	Thurstonian Scaling, R-Index
Week 10 Classes, November 7 & 9	Intensity Scaling Time-Intensity Measurement/Adaptation
Week 11 Classes, November 14 & 16	Context Effects and Demand Effects Descriptive Analysis

Week 12 Classes, November 21 & 23	Hedonic/Affective Scaling **Thanksgiving Break – No Class Wednesday Nov 23** **(Friday Schedule Observed)**
Week 13 Class, November 28 & 30	Texture Analysis Preference Testing
Week 14 Classes, December 5 & 7	Multi-modal Sensory Integration Individual Sensory Differences and Genetics
Week 15 Classes, December 12 & 14	Modeling Healthy Foods Make-Up Lecture/Review
Reading Day December 15	Review

This is a lecture based course and participation in lectures is required. If you miss more than 5 classes, constituting 20% of the course or more, you cannot pass this course.

Nutrition: Methods in Sensory Analysis 11:709: 443

Objectives, Rationale, Learning Goals

The purpose of this course is to provide nutrition majors a basic background in human orosensory physiology and sensory testing methods.

By the end of this course:

- The student will demonstrate knowledge of basic statistical insights needed to conduct sensory and psychophysical experiments.
- The student will demonstrate multi-disciplinary knowledge of how taste, smell, and oral somatosensation work from the perspective of anatomy, physiology, and molecular biology.
- The student will identify and know how to employ a variety of commonly used sensory and diagnostic testing methods ranging from signal detection theory and Bayesian analysis to descriptive analysis.
- The student will engage in analytical thinking and solve real world problems that arise in food industry and medicine, such as how to reduce salt or sugar in our diet without making food undesirable.