

SYLLABUS
FST 4024 (Currently FST 4984)
Principles of Sensory Evaluation
SPRING 2010 (draft)

INSTRUCTORS

Lecture and Laboratory

Dr. Susan Duncan

30 FST Building

231-8675

duncans@vt.edu

Office hours: by appointment

Teaching Assistant

To Be Determined

CLASS TIMES AND ROOMS

Lecture: Tuesday & Thursday, 11:00-12:15

COURSE DESCRIPTION

Principles of sensory evaluation including theory, sensory physiology and psychology, experimental methods, applications, and statistical analysis. Pre: Introductory statistics.

COURSE OBJECTIVES:

1. To describe and apply appropriate methodologies and applications of discrimination, descriptive, and affective tests used in sensory evaluation.
2. Relate the importance of laboratory and sensory controls to attaining reliable sensory data.
3. Identify appropriate sensory techniques for use in product development, quality control, and research activities in food and packaging.
4. To apply statistical knowledge and analyze sensory data for valid and meaningful interpretation of sensory results.
5. To develop skills in communicating technical sensory information.

TEXT

REQUIRED: Meilgaard, M., Civille, G.V., and Carr, B.T. 2007. *Sensory Evaluation Techniques*, 4th ed. CRC Press, Inc., Washington, DC.

RECOMMENDED; Lawless, H. T. and Heymann, H. 1999. *Sensory Evaluation of Food Principles and Practices*. Chapman & Hall, New York.

REQUIRED READING

Journal of Food Science Style Guide.

<http://members.ift.org/IFT/Pubs/JournalofFoodSci/jfsauthorinfo/jfsstyleguide.htm>

Guidelines for the Preparation and Review of Papers Reporting Sensory Evaluation Data.

http://members.ift.org/IFT/Pubs/JournalofFoodSci/jfsauthorinfo/jfs_sensoryevaluation.htm

Use of Human Subjects and Institutional Review Board.

<http://www.irb.vt.edu/pages/training.htm>

<http://www.irb.vt.edu/pages/newstudy.htm>

COURSE WEB SITE

The Blackboard web site for the course can be accessed through the Virginia Tech homepage (see Quicklinks or www.learn.vt.edu). Most of the information needed for class, such as assignments, project information, etc. will be on this web site.

SENSORY NEXUS

Sensory Nexus is a discussion list (hosted through Yahoo Groups) serving as an open forum for the discussion of news, questions, or issues relevant to the sensory community. This will be an important forum for questions and issues raised in the lecture in this class.

As part of this class, you are required to join this discussion group so you will be able to “listen” in on topics ranging from testing with senior adults to sensory evaluation facilities to the value of discrimination testing. There are over 980 sensory professionals in this discussion group and typically there is frequent activity. You also can contribute to the discussion but do not solicit answers to your project or test questions because I will consider such solicitation as a violation of the honor code.

You can join the list at <http://www.sensory.org>. Note that to subscribe through the web you will have to obtain a Yahoo ID and password if you do not already have a Yahoo account.

COURSE EVALUATION

Assignment	Points
Midterm 1	100
Midterm 2	100
Final	150
Homework assignments (5)	100
Presentation	25
Participation	25

GRADING SCALE

A	93-100	C+	77-79.9	D	63-66.9
A-	90-92.9	C	73-76.9	D-	60-62.9
B+	87-89.9	C-	70-72.9	F	>60
B	83-86.9	D+	67-69.9		
B-	80-82.9				

HONOR CODE

The Honor Code will be strictly enforced in this course. All assignments submitted shall be considered graded work, unless otherwise noted. All aspects of your coursework are covered by the honor system. Any suspected violations of the honor code will be promptly reported to the honor system. Honesty in your academic work will develop into professional integrity. The faculty and students of Virginia Tech will not tolerate any form of academic dishonesty.

CLASS PARTICIPATION

Class participation is an important component of this class. Students must be involved in class or group discussions. You may be asked to give an impromptu summary of a topic that has been discussed in class or of a reading that has been required. Brief question and answer sessions, in which I ask questions and you answer them, will occur occasionally. I recommend that you stay current with the required and suggested readings so you can be prepared for discussions.

Homework Assignments (100 points).

You will be given assignments related to organization, analysis, and interpretation of sensory methods.

CLASS SCHEDULE SPRING 2010 (draft)

Week	Lecture	Homework
1	Introduction- Role of Sensory Evaluation in Industry; (Ch 1, M; Ch 1 and 19, L&H) Principles of Good Sensory Practices (Ch 3, M; Ch 3 L&H)	H1: Institutional Review Board Certification
2	Factors Affecting Sensory Judgments (Ch 4, M; Ch 9 L&H) Use of Human Subjects	
3	Physiology of the Senses (Ch 2, M; Ch 2 L&H) Physiology of the Senses Lab Activity: Basic Tastes	
4	Discrimination Testing Principles (Ch 6 and 7, M; Ch 4 and 5, L&H) Discrimination Testing Methods	
5	Discrimination Testing Methods Discrimination Testing Methods Lab Activity: Discrimination Testing	H2: Discrimination Testing
6	Time Intensity Testing: Relationship to physiology and product development Lab Activity: Time Intensity Test R-Exam 1	
7	Scales and Rating Tests - Measuring Responses (Ch 5, M; Ch 6 and 7, L&H) Ranking and Rating Methods	H3: Ranking Tests
8	Spring Break	Spring Break
9	Affective Testing Principles (Ch 12, Ch 13-15, L&H) Affective Testing Methods Lab Activity: Attribute Differences on color, texture, viscosity	H4: Affective Tests
10	Affective Testing Methods Descriptive Testing Principles (Ch 9-11, M; Ch. 10-12,	
11	Descriptive Testing Methods Descriptive Testing Methods Lab Activity: Training for QDA Sensory Evaluation in Quality Control (color, texture, viscosity, instrumental analysis) Lab Activity: Use of Texture Analyzer..relate to Attribute Testing Lab Activity Exam 2	H5: Descriptive Tests
13	Food Packaging: Importance in Sensory Protection of Flavor Lab Activity: Packaging Effects on Flavor	
14	Oral Presentations by undergraduate students	
15	T- Oral Presentations by undergraduate students R- Presentations by graduate students	
16	T - Course Summary and Evaluation Final Exam, TBA	

M = Meilgaard et al., 2007 (Required Text); L&H= Lawless and Heymann, 1998 (Recommended Text)