

COURSE SYLLABUS

FDSC 602V Special Topics:

Chemosensory Perception and Measurement

Fall 2017

Instructor:	Han-Seok Seo, Ph.D. Assistant Professor Department of Food Science 2650 N. Young Avenue, N-215 Phone: 479-575-4778 Email: hanseok@uark.edu Office hours: Open door policy (You will need to check with me in advance to make an appointment).
Catalog Description:	1) FDSC 602 Special Topics: Chemosensory Perception and Measurement 2) This course is designed to address advanced techniques and current issues in sensory and consumer sciences, with a focus on chemosensory perception. This course consists of two main modules: I) anatomy and physiology of the chemosensory senses and II) measurement/analysis of chemosensory responses. 3) Format: - Two 75-min lectures: 4:30P.M.-5:45P.M. on Tuesday and Thursday; FDSC D-2) 4) This course includes both individual and group projects with an emphasis of four aspects of “C”: “Concept,” “Creativity,” “Critical thinking skills,” and “Communication.” 5) Pre-requisites: - FDSC 4413/4410L (Sensory Evaluation of Food; FA) - At least one course of statistics or experimental design
Course Objectives:	1) This course is designed for graduate students from food science and related areas to introduce advanced techniques and theories of sensory and consumer sciences, with a focus on two aspects: (1) sensory system and perception and (2) measuring and analyzing sensory responses. 2) This course will answer three main questions: (1) How do humans perceive chemosensory stimuli?, (2) How do we measure human responses elicited by the chemosensory stimuli, and (3) What factors can influence smell and taste perception?

<p>Learning Objectives:</p>	<p>1) Module I: Sensory system and perception</p> <ul style="list-style-type: none"> - The students will be able to summarize human perception of the chemosensory senses at anatomical and physiological levels. <p>2) Module II: Measuring and analyzing sensory responses</p> <ul style="list-style-type: none"> - The students will understand how to measure and analyze human responses elicited by chemosensory stimuli (e.g., smell and taste). <p>3) Individual project: Review and present current issues</p> <ul style="list-style-type: none"> - Based on learned knowledge and background, students will be able to explore and review literature and current issues relevant to each module. - At the end of this course, the students are expected to give oral and written presentations on their findings and thoughts. <p>4) Group project: Conduct advanced research projects related to chemosensory perception.</p> <ul style="list-style-type: none"> - The students will be able to conduct research projects associated with chemosensory perception using advanced techniques. - At the end of this course, the students will be able to do from brain storming to data report in certain sensory science projects. - At the end of this course, the students are expected to be able not only to design research projects, but also to make manuscripts on the basis of their findings. - The manuscripts are expected to be published in peer-reviewed journals.
<p>Text Book:</p>	<p>Course notes, readings, and selected articles</p>
<p>References:</p>	<ol style="list-style-type: none"> 1) Meiselman HL and MacFie HJH. 1996. Food Choice Acceptance and Consumption. New York, NY: Blackie Academic & Professional. 2) MacFie H. 2007. Consumer-Led Food Product Development. Boca Raton, FL: Woodhead Publishing Limited and CRC Press LLC. 3) Lawless HT and Heymann H. 2010. Sensory Evaluation of Food: Principles and Practices, 2nd edition. New York, NY: Springer. 4) Hummel T and Welge-Lüssen A. 2006. Taste and Smell – An Update. New York, NY: Karger. 5) Meullenet JF, Xiong R, and Findlay CJ. 2007. Multivariate and Probabilistic Analyses of Sensory Science Problems. Ames, IA: Blackwell Publishing. 6) Meilgaard MC, Civille GV, Carr BT. 2007. Sensory Evaluation Techniques, 4th edition. Boca Raton, FL: CRC Press LLC. 7) Jeleń H. 2012. Food Flavors – Chemical, Sensory and Technological Properties. New York, NY: CRC Press.

Assignments:	<p>1) Homework: students will be assigned readings from the journal article sources per week.</p> <p>2) Individual project: Each student will be asked to review and give both oral and written presentations with regard to special topics relevant to this course.</p> <p>3) Group project: Throughout this class, students will be asked to conduct advanced sensory research projects (2-3 students per group) under supervision of instructor.</p> <p>* All written assignments are to be submitted on paper.</p>																																
Evaluation Method:	<p>1) All assignments (i.e., homework, individual project, and group project) and three exams will be expected to be of professional quality.</p> <p>2) No late submission will be accepted without prior approval from the instructor.</p> <p>3) Late assignments will be penalized by deducting the points that you earn.</p> <p>4) The grade for this course will be determined as follows:</p>																																
	<table border="0"> <thead> <tr> <th style="text-align: left;"><u>Category</u></th> <th style="text-align: right;"><u>Score</u></th> </tr> </thead> <tbody> <tr> <td>1st Exam</td> <td style="text-align: right;">150</td> </tr> <tr> <td>2nd Exam</td> <td style="text-align: right;">150</td> </tr> <tr> <td>Group Project</td> <td style="text-align: right;">300</td> </tr> <tr> <td> - Oral presentation: 100-point</td> <td></td> </tr> <tr> <td> - Report: 200-point</td> <td></td> </tr> <tr> <td>Individual Project</td> <td style="text-align: right;">200</td> </tr> <tr> <td> - Oral presentation: 100-point</td> <td></td> </tr> <tr> <td> - Report: 100-point</td> <td></td> </tr> <tr> <td>Homework (Article summary/presentation)</td> <td style="text-align: right;">180</td> </tr> <tr> <td> - 20-point per homework</td> <td></td> </tr> <tr> <td>Class participation</td> <td style="text-align: right;">20</td> </tr> <tr> <td><u>Total</u></td> <td style="text-align: right;"><u>1,000</u></td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td><u>Bonus</u></td> <td></td> </tr> <tr> <td>Individual Project "Top 1"</td> <td style="text-align: right;">20</td> </tr> </tbody> </table>	<u>Category</u>	<u>Score</u>	1 st Exam	150	2 nd Exam	150	Group Project	300	- Oral presentation: 100-point		- Report: 200-point		Individual Project	200	- Oral presentation: 100-point		- Report: 100-point		Homework (Article summary/presentation)	180	- 20-point per homework		Class participation	20	<u>Total</u>	<u>1,000</u>	 		<u>Bonus</u>		Individual Project "Top 1"	20
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	<u>Composite Score</u>	<u>Grade</u>
	930-1,000	A
	900-929	A-
	870-899	B+
	830-869	B
	800-829	B-
	770-799	C+
	730-769	C
	700-729	C-
	670-699	D+
	630-669	D
	600-629	D-
	Below 600	F
Attendance:	<p>1) Attendance at the lectures is required. Absences should be justified and approved by the instructor before the lecture that you will miss. A valid documentation is recommended.</p> <p>2) Per absence: -10 point in the category of "Class participation"</p>	
Students with Disability:	If you need an accommodation due to a disability, please make arrangements to discuss this with the instructor in the first week of class.	
Inclement Weather:	This class will follow the University Policy for closing due to inclement weather.	
Academic Honesty:	This course will follow University rules and regulations concerning academic honesty. They are contained in the undergraduate /graduate catalog: http://provost.uark.edu/245.php , and you are expected to be familiar with them.	

FAQ

Case	Action
1. Unjustified absence at lectures <ul style="list-style-type: none"> • Valid documentation is recommended • Notice: email (hanseok@uark.edu) 12 hours before the class 	<ul style="list-style-type: none"> • -10 point in the category of “Class participation”
2. Late submission of homework <ul style="list-style-type: none"> • Valid documentation is recommended • Notice: email (hanseok@uark.edu) 24 hours before the due date • Submission via email is not accepted. • D+1 (from 12:01AM, CST) • D+2 (from 12:01AM, CST) 	<ul style="list-style-type: none"> • 50% of your score • No point
3. Late submission of Individual Project Report <ul style="list-style-type: none"> • D+1 (from 12:01AM, CST) • D+2 (from 12:01AM, CST) • D+3 (from 12:01AM, CST) 	<ul style="list-style-type: none"> • 80% of your score • 40% of your score • No point
4. Late submission of Group Project Report <ul style="list-style-type: none"> • D+1 (from 12:01AM, CST) • D+2 (from 12:01AM, CST) • D+3 (from 12:01AM, CST) 	<ul style="list-style-type: none"> • 80% of your score • 40% of your score • No point
5. Absence of Mid-Term or Final Exam <ul style="list-style-type: none"> • Valid documentation is required • Notice: email (hanseok@uark.edu) 48 hours before the exam 	<ul style="list-style-type: none"> • Make-up test will be given when the absence was validated in advance.
6. Inadequate attendance <ul style="list-style-type: none"> • Consistent chatting during class • Use of electronic equipment during class • No cooperative behaviors towards an instructor, teaching assistants, and group members 	<ul style="list-style-type: none"> • -10 point in the category of “Class Participation” • An appropriate administrative action will be given to the repetitive behaviors.
7. Plagiarism <ul style="list-style-type: none"> • Plagiarism in the assignments 	<ul style="list-style-type: none"> • No point