

Sensory analysis

MODULE	CONTENT	YEAR	TERM	CREDITS	TYPE
	Sensory analysis	3º	1º	6	Optativa
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DEGREE WITHIN WHICH THE SUBJECT IS TAUGHT			Human Nutrition and Dietetic		
PREREQUISITES and/or RECOMMENDATIONS (if necessary)					
BRIEF ACCOUNT OF THE SUBJECT PROGRAMME (ACCORDING TO THE DEGREE)					
<ul style="list-style-type: none"> - Sensory attributes: color, odor, aroma, taste, flavour, texture - Panel: characteristics and objectives - Normalized conditions - Sensory tests - Organoleptic valuation of different foods: sensory properties, methodology. 					
GENERAL AND PARTICULAR ABILITIES					
<p>General</p> <ul style="list-style-type: none"> - The Basic Skills of University contained in the Agreement of the Andalusian Committee of the Degree in Science and Food Technology <p>Specific</p> <ul style="list-style-type: none"> - To understand the foundations and objectives of the sensory analysis - To understand its importance as food quality parameter - To learn the principal sensory analysis tests and its application in the innovation, developing and quality control of food and beverages - To initiate students on sensory analysis 					



OBJECTIVES (EXPRESSED IN TERMS OF EXPECTED RESULTS OF THE TEACHING PROGRAMME)

- To know the bases, objectives and methodology of the sensory analysis
- To understand its importance in marketing studies, quality control, investigation, innovation and developing of new products
- To initiate students on sensory analysis of different foods and beverages

DETAILED SUBJECT SYLLABUS

LECTURE CLASSES

Chapter one: Introduction. The organoleptic quality concept. Sensory analysis concept. Course objectives. History and evolution. Current interest in nutrition.

Chapter two: perceptual sensory. Characteristics of the sensory perceptions. Perceptions thresholds. Mistakes and deviations. Sensory alterations.

Chapter three: sensory attributes. Definition and classifications. Visual perception. Evaluations of appearance. Sensory descriptions. Importance and evaluation of color sensory.

Chapter four: odor and aroma. Definition. Characteristics of sense of smell. Properties and classification of aromatic substances. Aromatics reference compounds. Sensory evaluation.

Chapter five: flavors and other taste sensations. Characteristics of sense of taste. Basic flavors. Reference substances. The concept of flavor. Sensory evaluation.

Chapter six: texture. Mechanic, geometric, and composition properties. Descriptions and reference products. Sensory evaluation.

Chapter seven: consumer panel. Characteristics, composition, objectives. Affective sensory testing. Results interpretations. Applications and current interest.

Chapter eight: analytic panel. Characteristics. Composition. Objectives. Selection process, training and control. Basic acting conditions.

Chapter nine: standard vocabulary. General terminology. Requirements. Specific terms related to sensory attributes and evaluation methods.

Chapter ten: Tasting room. General installations specifications. Description of complementary establishments. Environmental conditions. Standardized utensils.

Chapter eleven: discriminative sensory testing. Classification. Objectives. Paired comparison testing. Triangular testing. Double-triple testing. Multiple comparisons. Other testing. Applications. Statistics treatment and interpretation of results.

Chapter twelve: descriptive sensory testing. Classification. Objectives. Flavor profile. Texture profile. Descriptive-quantitative analysis. Other techniques. Applications. Statistical treatment and interpretation of results. Average scales.

Chapter thirteen: sensory analysis applications. Importance of investigation, progress, innovation and new



types of food. Importance of accepted testing and food intake. Interest in quality control and products covered by quality marks.

Chapter fourteen: organoleptic valuation of olive oil. Importance of regulatory standards. Objective. Sensory attributes. Methodology. Profile sheet. Statistical treatment of data and results interpretations.

Chapter fifteen: wine tasting. Determinative factors in wine sensory quality. Wine aging process influence. Sensory attributes. Vocabulary and methodology. Tasting notes.

SEMINARS

- Sensory analysis of other foods. Sensory attributes. Determinative factors. Repercussion of quality and acceptance. Methodology. Tasting notes.

SENSORY ANALYSIS LABORATORY

1. Practice one: Detection and odor identifications
2. Practice two: Flavor detection and identification and other tasting sensations
3. Preference sensory testing. Paired comparison
4. Discriminative sensory testing: double-triple and triangular testing.
5. Texture profile evaluation of food
6. Beginnings of virgin olive oil organoleptic evaluation: sensory attributes regulation and profile sheet.
7. Beginnings of wine tasting: sensory attributes vocabulary and tasting notes.
8. Beginnings of ham tasting: sensory attributes vocabulary and tasting notes.

Note: laboratory practices are mandatory and class assistance and participation will be part of the final course grade.

READING

AENOR. Análisis sensorial. 2ª edición. AENOR. Madrid, 2010.

Anzaldúa-Morales, A. La evaluación sensorial de los alimentos en la teoría y la práctica. Acribia. Zaragoza, 1994.

Ibáñez, F.; Barcina, Y. Análisis sensorial de los alimentos: métodos y aplicaciones. Springer-Verlag. Barcelona, 2001.

Sancho, J.; Bota, E.; De Castro, JJ. Introducción al análisis sensorial de los alimentos. Edicions Universitat de Barcelona. Barcelona, 1999.

Stone, H.; SIDEC, JL. Sensory evaluation practices. Academic Press. California, 1993.



Chamorro, MC.; Losada, MM. El análisis sensorial de los quesos. Mundi-Prensa. Madrid, 2002.

Jackson, RS. Wine Science: principles and applications. Elsevier. San Diego, 2008.

López, MM. Manual de viticultura, enología y cata. Almuzara. Madrid, 2007.

Reglamentación europea vigente en materia de valoración organoléptica del aceite de oliva virgen.

Publicaciones del Consejo Oleícola Internacional sobre valoración organoléptica del aceite de oliva virgen.

RECOMMENDED INTERNET LINKS

Consejo Oleícola Internacional: [http:// www.internacionaloliveoil.org](http://www.internacionaloliveoil.org)

AENOR: [http:// www.aenor.es](http://www.aenor.es)

Sensory Evaluation Standard: [http:// www.astm.org](http://www.astm.org)

