



Course guide

390446 - ASENS - Sensory Analysis

Last modified: 26/06/2023

Unit in charge: Barcelona School of Agri-Food and Biosystems Engineering
Teaching unit: 745 - DEAB - Department of Agri-Food Engineering and Biotechnology.

Degree: BACHELOR'S DEGREE IN BIOSYSTEMS ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN FOOD ENGINEERING (Syllabus 2009). (Optional subject).

Academic year: 2023 **ECTS Credits:** 6.0 **Languages:** Catalan, Spanish, English

LECTURER

Coordinating lecturer: Kallas Calot, Zein

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

1. Food engineering and technology: Food analysis.
2. Basic knowledge of food biochemistry and microbiology.
3. Valuation of agricultural firms and commercialization.

TEACHING METHODOLOGY

Theoretical classes (large group), where the teachers through an exhibition will alternate the master classes with the presentation of cases and the resolution of exercises, trying to motivate and involve the students so that they participate in their learning.

Support material using ATENEA is used.

Practical classes (small group), because the student puts into practice the methodologies of both sensory analysis and market studies that will have been explained to the classes as well as performing statistical analysis and interpretation of the data obtained.

Autonomous learning that includes oriented reading on the one hand and, on the other hand, the design, realization, analysis and interpretation of the data obtained from a case related to the contents of the subject. Using material provided by the teachers to class or be through the virtual campus ATENEA.

LEARNING OBJECTIVES OF THE SUBJECT

Upon completion of the subject Sensory Analysis, the student must be able to:

- To know the bases and techniques of sensory analysis
- Know the methods to study consumer behavior and preferences
- Design objective sensory analysis tests
- Design questionnaires to know the behavior and preferences of the consumer
- Design hedonic tests of preference using sensory analysis techniques
- Apply the statistical analysis correctly to know the result of the tests
- Analyze the results obtained and draw conclusions to make the right decisions
- Apply sensory analysis to evaluate the sensory quality of different products



STUDY LOAD

Type	Hours	Percentage
Hours medium group	40,0	26.67
Self study	90,0	60.00
Hours small group	20,0	13.33

Total learning time: 150 h

CONTENTS

SENSORY ANALYSIS BASIS

Description:

- 1.1 Psychological and physiological basis of sensorial perceptions.
- 1.2 Scientific basis of sensory analysis. Types of tests. Experimental design. The local. Test methodology: Worksheet and design of the score sheet, preparation of samples, development of the test, data collection.
- 1.3 Discrimination test and ranking test
- 1.4 The panel of tasters: recruitment, training, validation and maintenance
- 1.5 Hedonic tests

Related activities:

- Activity 1: Theoretical class.
- Activity 2: Practical classes in the laboratory (tasting room).
- Activity 3: Practical problem solving classes.
- Activity 4: Design, realization and resolution of a practical case.

Full-or-part-time: 65h

- Practical classes: 20h
- Laboratory classes: 10h
- Self study : 35h

(ENG) -

Description:

- Consumer research. Methods for the analysis of behaviour consumers. Questionarys design.
- On-line tools for the design of scoresheet and questionnaires

Full-or-part-time: 35h

- Practical classes: 10h
- Self study : 25h

(ENG) -ANÀLISI ESTADÍSTIC DE LES DADES

Description:

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Full-or-part-time: 50h

- Practical classes: 10h
- Laboratory classes: 10h
- Self study : 30h

ACTIVITIES

ACTIVITY 1: THEORETICAL CLASSES

Description:

Theoretical presentation through master classes and introduction of discussion elements to encourage student participation. It will be held in the conventional classroom.

The activity is directed by the teachers based on the material to be developed.

Specific objectives:

Promote the analytical capacity of the student from the reading and discussion of the practical cases and the readings that are provided with each topic.

Deepen the study of sensory analysis and its applications, incorporating the terminology of the subject.

Establish relationships between new concepts that are being learned

Become familiar with the tools for studying consumer behavior.

Material:

All available in the classroom such as computer connected to projector, Internet connection, audiovisual material, blackboard, etc.

Full-or-part-time: 58h

Practical classes: 38h

Self study: 20h

(ENG) PROVES D'AVUACIÓ ESCRITA

Full-or-part-time: 2h

Practical classes: 2h

(ENG) CLASSES PRÀTIQUES AL LABORATORI

Full-or-part-time: 30h

Laboratory classes: 10h

Self study: 20h

(ENG) CLASSES PRÀTIQUES DE RESOLUCIÓ DE PROBLEMES

Full-or-part-time: 40h

Laboratory classes: 10h

Self study: 30h

(ENG) DISSENY, REALITZACIÓ I RESOLUCIÓ D'UN CAS PRÀCTIC

Full-or-part-time: 20h

Self study: 20h

GRADING SYSTEM

The final qualification of the matter (Nfinal) will be obtained using the following polynomial:

$$N_{\text{final}} = 0.40 \times N1 + 0.20 \times N2 + 0.10 \times N3 + 0.05 \times N4 + 0.15 \times N5 + 0.10 \times N6$$

N1: Written exam 1 sensory analysis theory

N2: Written exam 2 theory and practice consumer behavior

N3: Practice 1

N4: Practice 2

N5: Practice 3

N6: Written exercise

EXAMINATION RULES.

Attendance and carrying out the proposed activities is mandatory.

BIBLIOGRAPHY

Basic:

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- Morgado Bernal, Ignasi; Camí, Jordi. Cómo percibimos el mundo : una exploración de la mente y los sentidos. Barcelona: Ariel, 2012. ISBN 9788434400269.
- Lea, P.; Naes, T.; Rodbotten, M. Analysis of variance for sensory data. Chichester: John Wiley & Sons, 1997. ISBN 0471967505.
- Meilgaard, M.; Civille, G.V.; Carr, B.T. Sensory evaluation techniques. 4th ed. Boca Raton, FL: Taylor & Francis, 2007. ISBN 9780849338397.
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- Ibáñez Moya, Francisco C.; Barcina Angulo, Yolanda. Análisis sensorial de alimentos : métodos y aplicaciones. Barcelona [etc.]: Springer, 2001. ISBN 840700801X.
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