INSTITUTO POLITÉCNICO DE BRAGANÇA

Course Unit	Sensory Analysis			Field of study	Food industries		
Master in	Food Quality and Safety			School	School of Agriculture		
Academic Year	2022/2023	Year of study	1	Level	2-1	ECTS credits	3.0
Type	Semestral	Semester	2	Code	6369-508-1201-00-22		

Workload (hours)	81	Contact hours	T -	TP 30	PL -	TC -	S -	E -	OT 2	O -

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s): Marieta Amélia Martins Carvalho

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Understand the importance of sensory evaluation of food. Advantages and disadvantages of sensory analysis. Physiology of the senses.
2. Select and train a panel test. Learn how to apply the methods of sensory analysis of foods. Relate to sensory and instrumental analysis with the statistical methodology.
3. Relationship of the sensory analysis, with components of the organoleptic quality - color, flavor, aroma and texture. Apply the methods learned.

Prerequisites

Before the course unit the learner is expected to be able to:
Graduation in science related. Knowledge of statistical methods.

Course contents

1-Introduction to Sensory Analysis 2 - Basics of Sensory analysis 3 - Objectives of the Sensory Analysis 4 - The most common attributes: color, flavour, texture 5 - Rooms for samples preparation and panel training 6 - Types of tests 7 - Factors influencing the performance 8 - Samples presentation 9 - The report, in sensory analysis

Course contents (extended version)

1. Introduction to sensorial analysis.
2. Quality definition:
   - safety, functional, organoleptic, nutritional, cultural and ecologic properties
3. Importance of sensory control, SC. Acceptability by the consumer. Advantages and disadvantages of SC
4. Bases of sensory analysis
   - Defining the problem.
   - Subjectivity. Physiological and psychological factors
   - Physiological basis
   - Basic tastes: sweet, salty, bitter, sour.
   - the taster
   - Area for the tests and sample preparation
   - The room. Environmental aspects.
   - Defining characteristics: general appearance, color, clarity, consistency.
   - Final assessment.
5. Objectives of the Sensory Analysis
   - Objective characterization of food products (PA). Acceptability of PA. New Products
   - anel Types: consumer, industrial, analytical, chamber of judges.
   - Selection and training of assessors. Management Panel. Training of a panel. Behavior of judges
   - Presentation of the samples. The panel manager.
   - Sensory analysis in the industry. Sensory analysis on consumption.
6. The most common attributes. Scales
   - Color - Concept physical-optical, ISO 11037. Determination of instrumental color. Pigments.
   - Flavor (Taste) - sweet, bitter, sour, salty.
   - Flavour
7. Texture - tactile evaluation.
8. Types of sensory tests
   - "Affective" tests
   - discriminative tests
   - Descriptive tests

Recommended reading

1. Félix Depledt (coordonnateur), 2009. Evaluation sensorielle manuel méthodologique. Collection : Sciences & techniques agroalimentaires. Éditeur : Tec et Doc, Paris, 524 pp.
2. Kemp, S. , Hollowood, T. , Hort, J. (2011). Sensory Evaluation: A Practical Handbook. John Wiley & Sons, NY.
3. STONE, H. ; BLEIBAUM, R. ; THOMAS, H. (2012). Sensory Evaluation Practices. 4th Edition. Editors: Herbert Stone, Rebecca Bleibaum & Heather Thomas. Academic Press . eBook ISBN: 9780123820877, 446pp.
4. ISO 6658, Sensory analysis — Methodology — General guidance. Documentos impressos. InsHtuto Português da Qualidade (IPC).
5. ISO 8589: 2007; NP EN ISO8586: 2012; ISO 4121: 2003; ISO 6658: 2005; ISO 10399: 2004; ISO4120: 2004; ISO 5492: 2008; ISO 13299: 20016

Teaching and learning methods

Lectures will be supported by media and multimedia resources. Practical classes will engage work in lab. Seminars will allow teacher and students to explore a particular topic related to food quality. Non present hours will involve training in a working environment. Graduate students are expected to work largely on their own initiative although with the close support and supervision of a tutor.

Assessment methods

1. Continuous assessment: : - (Regular, Student Worker) (Final)
   - Practical Work - 25% (Editors of reporting of the practical lessons (25%; 1, 25 ECTS). The note must be >9, 5 points.)
   - Development Topics - 25% (Monograph and its presentation in class (25%, 1,25 ECTS). The note must be > 9, 5 points.)
   - Intermediate Written Test - 25% (A test theoretical and practical (25%; 1,25 ECTS). The note must be > 9, 5 points.)
   - Final Written Exam - 25% (A test theoretical and practical (25%; 1,25 ECTS). The note must be > 9, 5 points.)

Assessment methods

2. Evaluation of student workers: - (Student Worker) (Final, Supplementary, Special)
   - Final Written Exam - 100% (Global written exam: theoretically and practical (100%; 5, 0 ECTS).)
3. Resource evaluation: - (Regular, Student Worker) (Supplementary)
   - Final Written Exam - 100% (Global written exam: theoretically and practical (100%; 5,0 ECTS).)
4. Special - (Regular, Student Worker) (Special)
   - Final Written Exam - 100% (Global written exam: theoretically and practical (100%; 5,0 ECTS).)

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation

Marieta Amélia Martins Carvalho	Fernando Jorge Ruivo Sousa	Maria Letícia Miranda Fernandes Estevinho	Ramiro Corujeira Valentim
14-12-2022	17-12-2022	19-12-2022	19-12-2022