

Course Unit	Product Development and Innovation	Field of study	Food industries
Master in	Food Quality and Safety	School	School of Agriculture
Academic Year	2022/2023	Year of study	1
Type	Semestral	Semester	2
Level	2-1	ECTS credits	6.0
Code	6369-508-1203-00-22		
Workload (hours)	162	Contact hours	T 15 TP - PL 45 TC - S - E - OT 4 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) Elsa Cristina Dantas Ramalhosa, Maria de Fatima Tome Martins

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Define the requirements of a Research, Development and Innovation Project (RDI);
2. Acquire skills to develop an IDI project to be applied in the perspective of food innovation and diversification of food products;
3. Recognize the importance of protecting innovation;
4. Develop skills of creation, analysis and evaluation of new products.

Prerequisites

Before the course unit the learner is expected to be able to:
Demonstrate knowledge on food chemistry.

Course contents

A) New product concept. Types of innovation; B) Management of Research, Development and Innovation activities (RDI); C) Innovation Protection; D) Laboratory work in the development of a new product; E) Development of a research and product development project.

Course contents (extended version)

1. A) New product concept. Types of innovation.
 - Product Innovation, Process Innovation, Organizational Innovation and Marketing Innovation;
2. B) Management of Research, Development and Innovation activities (RDI):
 - Standards NP 4456 and NP 4458, 2007;
3. C) Innovation Protection:
 - Intellectual Property versus Industrial Property;
 - Patents versus Utility Models;
 - Industrial Designs and Models;
 - Brand name and Trade Marks.
4. D) Laboratory work carried out to develop a new product.
5. E) Development of a research and product development project.

Recommended reading

1. NP 4456, 2007, Gestão da Investigação, Desenvolvimento e Inovação (IDI), Terminologia e definições das actividades de IDI;
2. NP 4458, 2007, Gestão da Investigação, Desenvolvimento e Inovação (IDI), Requisitos de um projecto de IDI;
3. OECD/Eurostat, 2005, Oslo Manual: Guidelines for collecting and Interpreting Innovation Data;
4. Site eletrónico do Instituto Nacional da Propriedade Industrial (<http://www.marcaspatentes.pt/>).

Teaching and learning methods

Theoretical lectures: the expository and active methods will be used, but also occasionally the interrogative method. Practical lessons: laboratory works related with the evaluation of several food properties will be performed.

Assessment methods

- Alternative I - (Regular, Student Worker) (Final, Supplementary, Special)
 - Final Written Exam - 40%
 - Practical Work - 60% (Oral presentation and preparation of a research and development project of a product.)

Language of instruction

1. Portuguese
2. English

Electronic validation

Elsa Cristina Dantas Ramalhosa, Maria de Fatima Tome Martins	Maria da Conceição Constantino Fernandes	Maria Leticia Miranda Fernandes Estevinho	José Carlos Batista Couto Barbosa
07-12-2022	07-12-2022	08-12-2022	09-12-2022