

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