



# COURSE CONTENT

## Academic year 2020/2021

Code-Course	052107- Products of Plant Origin: Natural and Manufactured		
Thematic Area	Biology	Year	Second
Course Type	Basic education	Credits	6cr. ECTS
In-class Hours	60 hours	Hours of Individual Work	90 hours

### BRIEF COURSE DESCRIPTION

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The subject of Plant Products (PPO) studies plant products, before and after their preparation. The knowledge of the cultivated species is worked to obtain the different fresh vegetable products and their great types and varieties. It studies the different plant production systems to know the main production techniques and how they influence the various production factors on the performance and commercial, sanitary, organoleptic and culinary quality of the fresh product. The processes and techniques of extraction of the most important products of plant origin, used to obtain the products of processed plant origin are also treated.

### BASIC SKILLS

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BS1 – Students must demonstrate knowledge and understanding in a study field based on secondary school and that relies on advanced textbooks and includes some aspects that imply knowledge about the vanguard of it.

### GENERAL SKILLS

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GS8 – Build hypothesis, collect and interpret information according to the scientific method.

### SPECIFIC SKILLS

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SS7 – Identify and classify the different families of prepared and unprepared food products for their culinary application.

SS08 – Use the culinary production processes and the basic preparation, transformation and preservation processes of foods of animal and plant origin.

### LEARNING OBJECTIVES

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- Identify the different fresh vegetable products, their varieties and anomalies. Identify the main species and agricultural families of horticultural, fruit, cereal and leguminous products, as well as the most important varieties.
- Know the plant production systems and the most important cultivated species for culinary use.
- Know the main production techniques and how the various production factors influence the performance and commercial, sanitary, organoleptic and culinary quality of the fresh product.
- Understand how the vegetable production sector works and apply the knowledge acquired to the culinary use of the products.
- Know the processes and techniques of extraction of products of plant origin.
- Apply knowledge about unprocessed products to understand the characteristics of the products produced from them and their application to the kitchen.
- To be able to propose the most appropriate techniques for extracting products from cereals, legumes and oilseeds according to a culinary objective.
- Distinguish between the quality attributes that are characteristic of the species, of the origin, of the production process or of the elaboration process, to determine its role in the culinary use of the products.

## THEMATIC CONTENTS

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1. Vegetables.
2. Fruits.
3. Cereals production, legumes and oleaginous plants.
4. Processed vegetable products.

## LEARNING METHODOLOGY

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The methodology followed to achieve the objectives will be according to the activity to be developed. To achieve the knowledge related to the contents of the subject, the methodology used will be that of master classes, in which the teacher exposes the contents with the help of slides and other audiovisual resources. However, student participation will be encouraged by asking questions



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from the teacher towards them or vice versa, as well as problems that illustrate the theme and give rise to collective reflection.

In the group sessions, they will try to develop the student's abilities to identify the diversity of products, their quality and the presence of alterations among others. In the set of all the sessions, the development of the capacity of global reasoning will be promoted within the framework of the subject and of the studies.

### ASSESSMENT SYSTEM

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The **assessment system** assesses the student's achievement of learning outcomes regarding the **subject's own competences**.

Students may choose between continuous assessments throughout the year or a final examination at the end of the course.

**Continuous assessment:** the teaching-learning process is assessed by a continuous monitoring of the work done by the students throughout the course.

**Final examination:** it assesses the students' learning outcomes by means of a final exam at the end of the course. Students who cannot come to class regularly due to justified reasons will be assessed at the end of the course.

Assessment systems	Continuous	Final
Student assignments	40 %	40%
Final written exam	60%	60%

### REVIEW AND REASSESSMENT OF THE COURSE

The student has the right to review all the evidences that have been designed for the assessment of learning.

If a student fails to achieve the learning objectives of the course, in order to opt for the reassessment of the course and submit a new reassessment task, it will be mandatory to fulfil one of these conditions:



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A. Students must have been awarded a mean grade of 5.0 or higher in relation to the activities carried out throughout the semester without taking into account the final exam/s (both continuous assessment and single assessment) and having attended the final exam.

B. Students must have been awarded a final minimum grade of 4.0 in the overall course.

After the reassessment, the maximum grade is 5.0 in the overall course.

## BIBLIOGRAPHY

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- Baldini, E. 1992. Arboricultura General. Ed. Mundi-Prensa. Madrid, España. 384 pp.
- Basra, A.S., Randhawa, L.S. 2002. Quality improvement in field crops. Ed. Food Products Press, New York. 431 p.
- Callejo, M.J. 2002. Industrias de cereales y derivados. Madrid: Ed. Mundi-Prensa. ISBN 8484760243.
- Gunstone, F. 2008. Oils and Fats in the food Industry. Ed. Blackwell Publishing.
- Maroto, J.V. 2007. Elementos de horticultura general. Mundi prensa.
- Maroto, J.V. y Baixauli, C. 2017. Cultivos hortícolas al aire libre. Publicaciones Cajamar:
- <http://www.publicacionescajamar.es/series-tematicas/agricultura/cultivos-horticolos-al-aire-libre/>
- Preece, J.E.; Read, P.E. 2005. The biology of horticulture: an introductory textbook. ISBN: 0-471-05989-7
- Pujol Palol, M. 2001. Cultius herbacis per a indústries agroalimentàries. Ed. Miquel Pujol, Capellades. 261 p.