
	PROCESO PARA EL DESARROLLO DE LAS ENSEÑANZAS DE LA ESCUELA DE INGENIERÍAS AGRARIAS		
		CÓDIGO: P/CL009_D002	

PROGRAMME IN FOOD CHEMISTRY AND BIOCHEMISTRY

Academic course: 2019-2020

Identification and characteristics of the subject					
Code	502221			Créditos ECTS	6
Name (Spanish)	Química y bioquímica de los alimentos				
Name (English)	Food chemistry and biochemistry				
Degree	Food Science and Technology Degree				
Center	Agricultural Engineering School				
Semester	Forth (4º)	Type	<u>Compulsory</u>		
Module	Food Science				
Subject	Food chemistry and biochemistry				
Language	Spanish				
Professor/s					
Name	Room	e-mail	Web link		
Lourdes Martín Cáceres	D703	martinlu@unex.es			
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Field of knowledge	Food Technology				
Department	Animal Production and Food Science				
Coordinator (if there is more than one professor)	Lourdes Martín Cáceres				
Lessons and contents					
Syllabus					
<ol style="list-style-type: none"> 1. Water in food. 2. Molecular mobility. 3. Functional properties of carbohydrates. 4. Starch in food. 5. Structural polysaccharides and their roles in food. 6. Non-enzymatic browning. 7. Carbohydrates in fruits and vegetables. 					

8. Functional properties of lipids.
9. Formation of emulsions in food.
10. Changes of lipids in foods.
11. Lipid modification treatments.
12. Functional properties of proteins.
13. Food protein systems.
14. Food enzymes.
15. Pigments in foods I.
16. Pigments in foods II.
17. Enzymatic browning.
18. Food additives.
19. Food additives that prolong the shelf-life.
20. Food additives that enhance flavor, aroma and color.
21. Food additives that improve texture.
22. Other food additives.

PRACTICAL SYLLABUS

A) Laboratory practices

Practical lesson 1. Determination of water activity.

Practical lesson 2. Evaluation of polysaccharides.

Practical lesson 3. Determination of lipids.

Practical lesson 4. Browning reactions.

Practical lesson 5. Evaluation of pigments.

Practical lesson 6. Evaluation of food dispersions.

B) Seminar