

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

## PROGRAMME IN REVALORIZATION OF AGRI-FOOD BY PRODUCTS

Academic course: 2019-2020

Identification and characteristics of the subject				
Code	502236		Créditos ECTS	6
Denomination (Spanish)	<b>Aprovechamiento de Subproductos de la industria agroalimentaria</b>			
Name (English)	Revalorization of agri-food by products			
Degree	Food Science and Technology Degree			
Center	Agricultural Engineering School			
Semester	Eighth (8º)	Character	Optative	
Module	Optative subjects			
Subject	Food By-products			
Language	Spanish			
Professor/s				
Name	Room	e-mail	Web link	
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Field of knowledge	Food Technology			
Department	PACAL			
Coordinator (in case there is more than one professor )	<b>Lourdes Martín Cáceres</b>			
Lessons and contents				
Syllabus				
<p>Lesson 1.- Introduction. By-products: general concept, background. Examples within the food industry.</p> <p><u>Section I.- Animal origin by-products</u></p> <p>Lesson 2: Generalities. Edible by-products.</p> <p>Lesson 3.- Rendering industries, rendered fat and proteins.</p>				

Lesson 4.-Leather

Lesson 5.- Gelatin.

Lesson 6.- Mechanically deboned meat.

Lesson 7.- Natural casings.

Lesson 8.- Blood revalorization

Lesson 9.- Poultry by-products

Section II.- Fishery by-products

Lesson 10.- Fish meal

Lesson 11.- Fish oil

Lesson 12.- Fish ensilate

Lesson 13.- Other by-products from fisheries

Section III.- Milk industry by-products

Lesson 14.- Milk by-products: casein, whey.

Section IV.- Olive industry by-products

Lesson 15.- "Alpechin" revalorization. Olive pomace revalorization.

Section V.- Wine by-products

Lesson 16.-By-products in grape processing

Section VI.- Sugar industry by-products

Lesson 17.- Sugarbeet by-products. Melasses.

Section VII.-Cereal industry by-products

Lesson 18.-Beer by-products. Bagasse. Barley by-products-

Section VIII.- Citrus by-products.

Lesson 19.- By-products from juice industries

Section IX.- Vegetable by-products

Lesson 20.- Vegetable by-products: vegetable proteins.

### **PRACTICAL SYLLABUS**



Practical lesson #1: Basic cream and soap manufacturing from rendered fat.

Practical lesson #2: Computer room: Bovine spongiforme Enzcephalopathie: consequences on by-product revalorization.

Practical lesson #3: Quitine extraction from shrimp by-products.

Practical lesson #4: Essential oil extraction.

Practical lesson #5: Vegetable by-products I

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Practical lesson #6: Vegetable by-products II

Practical lesson #7: Wine by-products

Practical lesson #8: Pectin extraction from citrus by-products

Practical lesson #9: Analysis of tomato by-products

Practical lesson #10: Sugar industry by-products