

Course:	L025 - Food Quality and Nutrition
Degree:	Bachelor
Curriculum Unit:	9087021 - Oils and Vegetables Fats Technology
Scientific field:	Food Science and Technology
ECTS^(*):	5
Curriculum year:	3rd
Curriculum semester:	1st
Frequency Regime:	Mandatory
Teacher(s):	Ana Cristina Vilas Boas Correia
Contact hours ^(**):	T - 30; P - 30
Total work time (hours):	132

(*) - ECTS - European Credit Transfer and Accumulation System

(**) – T- Theoretical; TP- Theoretical/Practical; LP- Lab Practice; S- Seminars; I- Internships; TU - Tutorials; O- Other (Evaluations)

Objectives / Competences

Provide students with knowledge on the industrial and nutritional quality of some of raw materials used in the extraction of fats (olives and oils seeds) as well as the different technological processes of attainment of these extracted fats in order to allow to the students the possibility to apply this knowledge in their future professional activity. Furthermore, the student must have the intervene capacity to the level of the continuous improvement of the quality of these products.

Syllabus

Theoretical: Technological and nutritional quality of olive and oil seed used in food technology. Importance of olive oil and edible oils in the diet and health. Physical and chemical characterization and nutritional value of foods fats. Biochemical reactions and phenomena of degradation of fats. Extraction process of olive oil. Factors influencing the quality of olive oil. Storage and conservation of olive oil. Classification and characteristics of virgin olive oil. Process of extracting oils from seeds. Process of refining oil. Processing of other vegetable fats (margarines).

Practical component: Quality evaluation of olives oils (chemical and sensorial parameters). Olive oil classification. Oils: extraction and evaluation of the quality. Visits to companies in the oils sector.

Teaching methodologies and evaluation criteria

This curricular unit will be taught in e-learning system mixed with classroom and online support. The classes include classroom lectures and laboratory practice. The theoretical instruction is based on the exposure of the material in lectures. The practical component will be conducted in situations that will aim to make vegetables oils extraction and the qualitative analysis of these oils and olive oils samples. Visits to olive oils extraction companies.

The evaluation consists of a written exam final, encompassing the acquired knowledge in both theoretical and theoretical-practical and written work done in group and stating the work in practical laboratory component.

Short bibliography

GOUVEIA, J.M.; SALDANHA, J.; MARTINS, A.; MODESTO, M.L.; SOBRAL, V. – O azeite em Portugal, Edições Inapa, 2002.

HELMOSO, M.; UCEDA, M.; GARCIA-HORTIZ, A.; MORALES, J.; FRIAS, L.; FERNANDEZ, A. – Elaboration de aceite de oliva de calidad. Junta de Andalucia, Consejería de Agricultura y Pesca. 1991.

KARLESKIND, A. (ed.) - Oils and fats Manual: A comprehensive Treatise. Properties, Production and Applications. Intercept Ltd, Andover, Uk. Tomo I and II. 1996.

KIRITSAKIS, A. K. - El aceite de oliva. A. Madrid Vicente, Ediciones, Madrid, Espanha. 1992.

MADRID, A.; CENZANO, I.; VICENTE, J.M. – Manual de aceites y grasas comestibles. AMV Ediciones y Mundi-Prensa, Madrid. 1997

<http://www.internationaloliveoil.org/>