

Course Unit	Option I - Technology of Wine and other Alcoholic Drinks		Field of study	Food Industries	
Bachelor in	Agronomic Engineering		School	School of Agriculture	
Academic Year	2022/2023	Year of study	3	Level	1-3
Type	Semestral	Semester	1	ECTS credits	6.0
Workload (hours)		162	Contact hours	T 30 TP - PL 30 TC - S - E - OT 20 O -	
Code 9086-307-3104-02-22					

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) João Luís Verdial Andrade

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Know the phenomena that occur from the process of elaboration of wines (and other alcoholic beverages) and the justification of the technologic processes followed.
2. Make the operations of winemaking and production of other alcoholic beverages.
3. Identify the most common problems that occur during the process and focus its solution.
4. Plan the several operations that take place in a winery/distillery over time.
5. Interpretation of technical information; analysis reports.
6. Choose the equipment/techniques more suitable for different situations.
7. Calculate production costs.
8. Plan and manage a winery/distillery.

Prerequisites

Before the course unit the learner is expected to be able to:
General knowledge: microbiology, chemistry and viticulture

Course contents

Introduction. Chemical Constituents of Grapes and Wine. Basic Procedures of Wine Production. Harvesting and Criteria for Timing of Harvest. Basic Procedures of Wine Production. White Wine Production. Red Wine Production. Specific Wine Production. Stabilization and Clarification. Spoilage Problems and Accidental Contaminants. Wine Spiritis. Vinegar. Basic Procedures of Beer. Bottles and Other Containers. Sensory Perception

Course contents (extended version)

1. Introduction
2. Chemical Constituents of Grapes and Wine
3. Basic Procedures of Wine Production
4. Harvesting and Criteria for Timing of Harvest
5. Procedures of White and Red Wine Production
6. Specific Wine Production
7. Stabilization and Clarification
8. Mature process
9. Problems and Accidental Contaminants
10. Wine Spiritis
11. Vinegar
12. Basic Procedures of Beer
13. Bottles and Other Containers
14. Sensory Perception

Recommended reading

1. CARDOSO, A. D. (2019). O vinho da Uva à Garrafa. 2ª edição. Quantica Editora. Porto. Portugal
2. PEYNAUD, E. Er BLOUIN, J. (1996). Le Goût du Vin Le Grand Livre de la Dégustation. Dunod. França.
3. RIBÉREAU GAYON, P. et al. (1998). Traité D'Oenologie. Dunod. França
4. TOGORES, J. H. (2003) Ediciones Mundi-Prensa. Tomo I e II
5. USSEGLIO TOMASSET, L. (1995). Chimie Oenologique. Techvique & Documentation. França.

Teaching and learning methods

Presencial classes (Theoretical-Theoretical-practical, laboratory practices/ winery and works in the vineyard)for the application of knowledge, with the elaboration of the respective technical reports. Lecture and critical discussion of bibliography and scientific papers published.

Assessment methods

1. Alternative 1 - (Regular, Student Worker) (Final, Supplementary, Special)
 - Practical Work - 20% (Oral presentation and discussion)
 - Final Written Exam - 80%
2. Final exam - (Regular, Student Worker) (Supplementary, Special)

Language of instruction

1. Portuguese
2. Spanish

Electronic validation

João Luís Verdial Andrade	António Castro Ribeiro	Albino António Bento	José Carlos Batista Couto Barbosa
14-12-2022	19-12-2022	20-12-2022	20-12-2022