Biotechnical Faculty / CONTINENTAL FRUIT GROWING AND MEDICAL PLANTS / WINE PRODUCTION

Course:	WINE PRODUCTION			
Course ID	**Course status**	**Semester**	**ECTS credits**	**Lessons** (Lessons+Exercises+Laboratory)
10770	Optional	4	6	3+2+0
Programs	CONTINENTAL FRUIT GROWING AND MEDICAL PLANTS			
Prerequisites	No			
Aims	Acquiring knowledge in the field of wine technology. Acquaintance of students with the traditional and modern process of primary processing of grapes, equipping and maintaining the cellar, the method of vinification and the influence on the quality of the wine.			
Learning outcomes	After the student passes the exam, will be able to: - Know the importance of wine technology as a multidisciplinary field; - Acquire knowledge about modern cellaring, which is based on historical tradition in the construction of wine cellars; - Knows the chemical composition of grapes and wine, stages and procedures in the production and finishing of wine, basic technical and technological conditions of production and elements of wine quality; - Analyzes, describes and knows the most important varietal wines;. - Designs wine cellars according to standards and regulations; - Use devices and equipment in the basement; - Apply an engineering approach in identifying and solving problems related to the production and quality of wine; - Knows the causes and conditions for the development of wine spoilage and defects and measures for their prevention and remediation; - Sensory assesses the quality of wine; - Knows organizational and documentation requirements in wine production.			
Lecturer / Teaching assistant	Doc.dr Danijela Raičević			
Methodology	Lectures, exercises, independent work and consultations			
Plan and program of work				
Preparing week	Preparation and registration of the semester			
I week lectures	Introduction and definition of the subject. History of winemaking in the world and in our country.			
I week exercises	The most important wine destinations and wine producers.			
II week lectures	Types of basements. Standards and regulations in the construction of wine cellars.			
II week exercises	Wine cellar design.			
III week lectures	The most important wine grape varieties. Mechanical and chemical composition of grapes.			
III week exercises	Determining the technological maturity of grapes. Determination of sugar content and total acids and pH in the wider area.			
IV week lectures	Harvesting, transport and reception of grapes in the cellar.			
IV week exercises	Determination of mechanical composition of grapes.			
V week lectures	Primary grape processing.			
V week exercises	Repair of the wider chemical composition.			
VI week lectures	Colloquium I			
VI week exercises	Visit to the winery.			
VII week lectures	Oenological means. Alcoholic fermentation.			
VII week exercises	Use and determination of quantities of oenological agents.			
VIII week lectures	Different methods of vinification. Technology of white, rose, red and special wines.			
VIII week exercises	Determination of specific gravity and pH value in wine.			
IX week lectures	Care and finishing of wine.			
IX week exercises	Determination of alcohol and total acids in wine.			
X week lectures	Conditions in the cellar that affect wine spoilage and defects.			
X week exercises	Determination of volatile acids in wine.			
XI week lectures	Equipment and installations in the winery.			
XI week exercises	Determination of free and total SO2 in wine.			

XII week lectures	Colloquium II
XII week exercises	Visit to the winery.
XIII week lectures	Wine courts. Maintenance and cleaning of wine vessels.
XIII week exercises	Calculation of the amount of sulfur needed for a technologically sound wine.
XIV week lectures	Production control in the basement.
XIV week exercises	Determination of reducing sugar and extract content in wine.
XV week lectures	Wine culture.
XV week exercises	Sensory evaluation of wine.
Student workload	

Per week	**Per semester**
6 credits x 40/30=8 hours and 0 minuts 3 sat(a) theoretical classes 0 sat(a) practical classes 2 excercises **3 hour(s) i 0 minuts** of independent work, including consultations	Classes and final exam: **8 hour(s) i 0 minuts x 16 =128 hour(s) i 0 minuts** Necessary preparation before the beginning of the semester (administration, registration, certification): **8 hour(s) i 0 minuts x 2 =16 hour(s) i 0 minuts** Total workload for the subject: **6 x 30=180 hour(s)** Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) **36 hour(s) i 0 minuts** Workload structure: **128 hour(s) i 0 minuts (cources), 16 hour(s) i 0 minuts (preparation), 36 hour(s) i 0 minuts (additional work)**
Student obligations	Students are required to attend classes, do seminar work, exercises and both colloquiums.
Consultations	In agreement with the students, one hour a week.
Literature	Students will receive printed material. Other literature : Radovanović V. (1986): Tehnologija vina, Građevinska knjiga, Beograd; Blesić M., Mijatović D., Radić G., Blesić S. (2013): Praktično vinogradarstvo i vinarstvo, Sarajevo; Jackson, S.R. (2008) Wine science, Principles and application, 2.izd., Elsevier Inc. London; Daničić M. (1988): Tehnologija vina (praktikum), Beograd, Poljoprivredni fakultet; Zoričić M. (1996): Podrumarstvo, Globus, Zagreb; Paunović R., Daničić M. (1967): Vinarstvo i tehnologija jakih alkoholnih pića, Zadružna knjiga, Beograd
Examination methods	Class attendance: 5 points; Seminar paper: 5 points; Colloquium: (2 x 20): 40 points; Final exam: 50 points. Grades and points: A (≥ 90 to 100 points); B (≥ 80 to < 90); C (≥ 70 to < 80); D (≥ 60 to< 70); E (≥ 50 to < 60); F < of 50
Special remarks	
Comment	

Grade:	F	E	D	C	B	A
Number of points	less than 50 points	greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points