

### DESCRIPTION OF A STUDY COURSE – SYLLABUS

DESCRIPTION OF A STUDY COURSE - GREEN200					
Title of a course	Grapevine physiology and ecology				
Head of course	PhD Marijan Bubola, Senior Lecturer				
Study programme	Specialist Professional Study of Winemaking				
Status of a course	Obligatory				
Year of study	1	Semester	I	ECTS credits	7
Teaching plan (L + E + S+ Pr)	L- 2, E - 2, S – 0, Pr - 1				
Goals of a course					
Introducing students to the basic postulates of modern viticulture production with an emphasis on the physiology of grapevine and the ecological conditions that influence the growth and development of vines.					
Conditions for enrolling course					
No conditions					
Learning outcomes on a level of a study programme which includes course					
Outcome 1: Assess the impact of physiological processes, ampelotechnical and meliorative treatments on the nature and quality of grapes. Outcome 2: Evaluate the impact of the <i>terroir</i> , technological maturity and harvesting technology to achieve the targeted quality of grapes and wine. Outcome 7: Choose a specific production technology of autochthonous wine in order to preserve the variety specificities. Outcome 8: Substantiate the influence of significant factors on the processes and concentration of the most significant wine components. Outcome 9: Evaluate and determine the origin of the aromatic constituents and types of wine aroma.					
Expected learning outcomes on a level of a course					
1. Interpret the importance and role of factors affecting physiological processes in grapevine such as light, temperature, water availability, nutrient availability, and describe the primary physiological processes (photosynthesis, respiration, transpiration, translocation, and distribution of assimilates within vine). 2. Determine and successfully maintain the physiological efficiency of vineyards and the balance between vegetative growth and vine fertility. 3. Assess the impact of soil characteristics such as geological origin, texture, structure, drainage and water availability, depth, nutrient presence, pH value, colour and proportion of organic matter on the growth and development of grapevine and grape ripening potential. 4. Interpret the importance of climatic factors affecting the growth and development of grapevine, and calculate the climatic indices used in viticulture. 5. Choose a suitable grapevine growing location and describe topographic influences on the growth and development of the grapevine such as sunlight exposure, exposure, inclination, wind exposure, frost protection, altitude, latitude, proximity to large bodies of water.					
Content of a course					
Primary physiological processes in grapevine: photosynthesis, respiration, transpiration, translocation, and distribution of assimilates within vine. Factors that influence physiological processes in grapevine: light, temperature, water availability, nutrient availability. Physiological efficiency of vineyards. Determination and maintenance of physiological efficiency of vineyards. Balance between vegetative growth and vine fertility. Soil characteristics that influence the growth and development of grapevine: geological origin, texture, structure, drainage and water availability, depth, flora and fauna, nutrient presence, pH, colour and organic matter proportion. Climatic factors that affect the growth and development of grapevine: temperature, sunlight, water, humidity and wind. Climate indices in viticulture. Topographic influences on the growth and development of grapevine: sunlight exposure, exposure, inclination, wind exposure, frost protection, altitude, latitude, proximity to large bodies of water. Position as a set of natural factors that influence the growth and development of grapevine and the quality of grapes. The concept of <i>terroir</i> .					

<b>Teaching modes</b>	<input checked="" type="checkbox"/> lectures	<input checked="" type="checkbox"/> individual assignments
	<input type="checkbox"/> auditory exercises	<input type="checkbox"/> multimedia and network
	<input checked="" type="checkbox"/> seminars and workshops	<input type="checkbox"/> laboratory
	<input type="checkbox"/> distance learning	<input type="checkbox"/> supervisor's work
	<input type="checkbox"/> field classes	<input type="checkbox"/> other _____

<b>Comments</b>	
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<b>Students' obligations</b>
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<b>Grading, evaluation and monitoring of students' work continuously during lectures and exams</b>
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Grading is based upon evaluation of course's learning outcomes' adoption. Grading is performed continuously during lectures and/or during exam, in compliance with the provisions of Regulation on the assessment of students.

**Continuous check-up:**

Outcomes	Pre-exam I	Pre-exam 2	Seminar work	Home assignment	Threshold	Max
Outcome 1						
Outcome 2						
Outcome 3						
Outcome 4						
Outcome 5						
Outcome 6						
Percentage of ECTS						
Total						

A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.

**Exam term:**

Outcomes	Written exam	Oral exam	Max
Outcome 1			
Outcome 2			
Outcome 3			
Outcome 4			
Outcome 5			
Outcome 6			
Percentage of ECTS			
Total			100 %

A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.

**Grading:**

A student has passed the exam if he has acquired at least 50% of anticipated credits of a specific learning outcome.

If a student has passed learning outcomes of all courses, the accomplished credits (percentages) of all passed learning outcomes are being added, while the final grade is defined upon following table:

Range of credits (percentages)	Numerical grade	ECTS grade
90,00 – 100,00	Excellent (5)	A
75,00 – 89,99	Very good(4)	B
60,00 – 74,99	Good(3)	C
50,00 – 59,99	Sufficient (2)	D

	0,00 – 49,99	Insufficient (1)	F	
Obligatory literature				
Additional literature				

