DESCRIPTION OF A STUDY COURSE – SYLLABUS

Title of a course	**Plant physiology**				
Head of course	**PhD Vesna Kovačević, College Professor**				
Study programme	**Professional undergraduate study Winemaking**				
Status of a course	Obligatory				
Year of study	1.	**Semester**	II	**ECTS credits**	4
Teaching plan (L + E + S+ Pr)	(2+0+0+0)				

Goals of a course

Introduce students to the functions of the plant organism at the level of the cell, organ, plant as a whole and the life processes that take place in plants. To familiarize students with the influence of external factors on the physiological processes and on the growth and development of plants, and the mechanisms by which plants resist stressful conditions.

Conditions for enrolling course

No conditions

Learning outcomes on a level of a study programme which includes course

Develop a plan for the cultivation of Mediterranean cultures, including economic and breeding elements.
Design irrigation models based on water balance and apply classic and special irrigation models.

Expected learning outcomes on a level of a course

1. Comment on the functions of the plant at the cell and organ level, and the level of the plant as a whole.
2. Evaluate the significance of physiological - biochemical processes that take place in plants.
3. Link growth and development processes with yield production in plants.
4. Analyse the resistance of plants to the stress effects of external factors.

Content of a course

Basic functions of cell. Water regime of plants (content inside plants, absorption, transport and extraction). Mineral substances (importance, intake and transport across plant). Photosynthesis (importance, mechanism and chemise, types, factors affecting process of photosynthesis). Chemosynthesis. Circulation of assimilates inside plant. Biological oxidations, respiration and fermentation. Heterotrophic plants. Growth and development of plants. Development of agricultural plants. Commotion of plants. Resistance to extreme factors of outdoor environment.

Teaching modes	☒ lectures ☐ auditory exercises ☒ seminars and workshops ☐ distance learning ☐ field classes	☒ individual assignments ☐ multimedia and network ☐ laboratory ☐ supervisor's work ☐ other _____
Comments		

Students' obligations

Required class attendance. Students must have a notebook of completed activities that are reviewed and scored.

Grading, evaluation and monitoring of students' work continuously during lectures and exams

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	Activity	Presentation	Threshold	Max
Outcome 1	18	2		**10**	**20**
Outcome 2	22	2	6	**15**	**30**

Outcome 3	22	2	6	**15**	**30**
Outcome 4	14		6	**10**	**20**
Percentage of ECTS	*2,5*	*0,5*	*1*		
Total	**76**	**6**	**18**	**50 %**	**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.

Exam term:

Outcomes	Written exam	Oral exam	Max
Outcome 1	16	4	**20**
Outcome 2	24	6	**30**
Outcome 3	24	6	**30**
Outcome 4	16	4	**20**
Percentage of ECTS	*4*	*1*	
Total	80 %	20 %	**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

1. Dubravec, K. i Regula, I. 1995: Fiziologija bilja. Školska knjiga, Zagreb

Additional literature

1. Pevalek – Kozlina, B. 2003. Fiziologija biljaka. Profil, Zagreb
2. Denffer, D. i Ziegler, H., 1982: Botanika – Morfologija i fiziologija. Školska knjiga, Zagreb