

DESCRIPTION OF A STUDY COURSE – SYLLABUS

Title of a course	Agriculture Basics and Environment Protection				
Head of course	PhD Melita Zec Vojinović, Senior Lecturer				
Study programme	Professional undergraduate study Sustainable Agritourism				
Status of a course	Obligatory				
Year of study	1.	Semester	I	ECTS credits	4
Teaching plan (L + E + S+ Pr)	2+0+2+0				
Goals of a course					
Introduce students to the basics of sustainable agricultural production. Introduce to students the application of meteorological parameters to improve production and methods for maintaining soil fertility. Introduce students to agritourism planning according to environmental principles.					
Conditions for enrolling course					
No conditions					
Learning outcomes on a level of a study programme which includes course					
Outcome 2: Assess the suitability of environmental and edaphic factors for sustainable plant and animal production. Outcome 3: Select species, assortments and breeds, as well as the technology for cultivation, breeding and maintaining the health of plants and animals. Outcome 7: Recommend environmentally friendly methods of hygiene, maintenance and waste management in agriculture, tourism and catering.					
Expected learning outcomes on a level of a course					
<ol style="list-style-type: none"> 1. Apply climate and meteorological data to advance agricultural production 2. Recommend irrigation systems 3. Calculate water balance and irrigation rations 4. Calculate and determine the ameliorative fertilization of plantations 5. Recommend methods for improving the physical, chemical and microbiological properties of soil 6. Select appropriate environmentally friendly methods of sustainable agricultural production and good agricultural practices 7. Assess opportunities for improving agricultural production and agritourism operations with regard to waste reduction and environmental protection 					
Content of a course					
Climatic parameters and their influence on agricultural production. Irrigation systems. Methods and techniques of irrigation. Physical, chemical and micro-biological features of soil. Sustainable soil processing. Plant nutrition and fertilization planning. A system of sustainable waste management. The influence of agricultural and agritourism waste on the components of the environment. Managing waste from agriculture and agritourism. Reducing the production, recycling and usage of garbage from agriculture and agritourism. Creating a comprehensive system of garbage management on an estate.					
Teaching modes	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> auditory exercises <input checked="" type="checkbox"/> seminars and workshops <input type="checkbox"/> distance learning <input type="checkbox"/> field classes		<input checked="" type="checkbox"/> individual assignments <input type="checkbox"/> multimedia and network <input type="checkbox"/> laboratory <input type="checkbox"/> supervisor's work <input type="checkbox"/> other _____		
Comments					
Students' obligations					

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	Making a plan	Assignment	Home assignment	Threshold	Max
Outcome 1				10	5	10
Outcome 2			10		5	10
Outcome 3				15	7.5	15
Outcome 4				15	7.5	15
Outcome 5	10				5	10
Outcome 6	15				7.5	15
Outcome 7		25			12.5	25
Percentage of ECTS	1	1	0,5	1.5	2	4
Total	25%	25%	12,5%	37,5%	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	10		10
Outcome 2	10		10
Outcome 3	15		15
Outcome 4	15		15
Outcome 5	8	2	10
Outcome 6	12	3	15
Outcome 7	25		25
Percentage of ECTS	3,5	0,5	4
Total	90%	10%	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. Volf P., Dadaček, N. Agroklimatologija, Visoko gospodarsko učilište, Križevci. 2008. (139 str.)
2. Romić D. Navodnjavanje u održivoj poljoprivredi, priručnik za hidrotehničke melioracije, II Kolo,

<p>Navodnjavanje, Knjiga 9., Liber, Rijeka. 2005. (Raspon stranica 169-192)</p> <p>3. Vukadinović, V., Vukadinović, V., Tlo, gnojidba i prinos. Vlastita naklada: http://tlo-i-biljka.eu/gnojidba/eKnjiga_Tlo-gnojidba-prinos.pdf, 2016. (283 str.)</p> <p>4. Kemeter, D., Održivo gospodarenje otpadom, Međimursko Veleučilište u Čakovcu, Čakovec. (133 str.) https://www.mev.hr/wp-content/uploads/2013/12/Odr%C5%BEivo-gospodarenje-otpadom.pdf, 2015.</p> <p>5. Sannigrahi, A. K., Agriculture and Waste Management for Sustainable Future, NIPA. (260 str.), 2011.</p>
<p>Additional literature</p> <p>1. Dadaček, N. Osnove bilinogojstva, Visoki gospodarsko učilište u Križevcima. 2016. (272 str.)</p> <p>2. Mengel, K., Kirkby, E.A. Principles of Plant Nutrition, Springer Netherlands. 2001. (849 str.)</p> <p>3. Harrison, R. E., Hester, R. M. Environmental Impacts of Modern Agriculture. Volume 34 of Issues in environmental science and technology Royal Society of Chemistry, 2012. (174 str.)</p> <p>4. Oliver, M., Bishop, T., i Marchant, B. Precision agriculture for sustainability and environmental protection. Routledge, 2013. (304 str.)</p> <p>5. Patterson, C. Sustainable Tourism: Business Development, Operations and Management. Human Kinetics, 2015. (208 str.)</p>

