

Study Programme: FRUIT SCIENCE, VITICULTURE AND HORTICULTURE			
Course Unit Title: Biology of fruit species			
Course Unit Code: 19.VIV004			
Name of Lecturer(s): Sandra M. Bijelić			
Type and Level of Studies: Undergraduate academic studies			
Course Status (compulsory/elective): Compulsory			
Semester (winter/summer): Summer			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning): Face-to-face			
Number of ECTS Allocated: 7			
Prerequisites: Botany			
Course Aims: The aim of the course is education and training of students in the field of fruit growing. The student should acquire basic knowledge of systematics, morphology, ecology, physiology, and fruit propagation.			
Learning Outcomes: The outcome of the course is the formation of experts with an academic education who has extended knowledge in relation to the knowledge acquired in high school. The students should be prepared for further upgrading of knowledge in the field of fruit growing with the ultimate goal of applying it in fruit growing practice.			
Syllabus:			
<i>Theory</i> The importance of fruit growing. Development of fruit growing and fruit production in the world and in our country. The main fruit regions in Serbia. Classification of fruit species and general biological characteristics of individual fruit species. The root system of fruit trees and their function. Aboveground organs of fruit trees and their functions. Trunk. Crown. Fruit twigs. Buds. Leaf. Flower. Fruit. Seeds. Fruit life cycles. Fruit yield. Formation of flower buds. Flowering, pollination and fertilization of fruit trees. Fruit education and development. Fruit ecology: the relationship of fruit trees to soil and climate. Influence of terrain position on fruit trees. Propagation of fruit trees. Generative propagation of fruit trees. Vegetative propagation of fruit trees. Grafting (time and method).			
<i>Practice</i> Organs of fruit trees - root, root neck, trunk, crown, leaf, buds, flower, fruit and seeds of different fruit species. Recognition of different fruit species according to the basic characteristics of shoots. Recognition of different fruit species according to the basic morphological characteristics of the leaves. Fruit twigs. Recognition of fruit seeds of different fruit species. Determination of purity and germination of fruit seeds. Presentation of different ways of vegetative propagation: cuttings, sedges, pruning, shoots, vines. Mastering different ways of grafting fruit trees. Preparation of coil wax. Micropropagation of fruit trees - Preparation of nutrient media. Insulation of starting material. Differentiation of flower buds. Determining potential fertility.			
Required Reading:			
1. Veličković M., Voćarstvo, Poljoprivredni fakultet, Zemun 2002			
2. Keserović Z., Korać N., Magazin N., Grugurević V., Gvozdenović D., Bijelić S., Vračević B., Proizvodnja voća i grožđa na malim površinama, Univerzitet u Novom Sadu, Poljoprivredni fakultet Novi Sad 2008			
3. Lučić, P., Đurić Gordana, Mičić, N. Voćarstvo i Institut za istraživanja u poljoprivredi Srbija; Nolit Partenon 1996			
4. Mišić, D. M., Nikolić, D. M. Jagodaste voćke Institut za istraživanja u poljoprivredi Srbija, Čačak, 2003			
5. Šoškić, M. Voćarstvo Nauka, Beograd 1991			
Weekly Contact Hours:	Lectures: 4	Practical work: 2	
Teaching Methods: Lectures, laboratory work, practical training in experimental fields.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class participation	10	written exam	
Practical work	10	oral exam	30
Preliminary exam(s)	40	
Seminar(s)	10		
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			