

Course Unit Descriptor

Study Programme: Organic agriculture		
Course Unit Title: Postharvest technologies		
Course Unit Code: 19.ORG043		
Name of Lecturer(s): Assistant professor Zoran Stamenković		
Type and Level of Studies: Undergraduate		
Course Status (compulsory/elective): Elective		
Semester (winter/summer): Winter		
Language of instruction: Serbian		
Mode of course unit delivery (face-to-face/distance learning): face-to-face		
Number of ECTS Allocated: 6		
Prerequisites: None		
Course Aims: Acquaintance of students with post-harvest technologies of preservation, storage, packaging and distribution of fruits, vegetables, medicinal and spice plants.		
Learning Outcomes: Training for independent recognition of the needs of the application of appropriate technological and technical solutions for the primary processing of fruits, vegetables, medicinal and spice plants.		
Syllabus: Getting to know the methods used in agriculture to increase production and preserve product quality. Familiarization with methods of improving seed production, treatment of seeds and other granular agricultural products, new techniques of preparation for storage of agricultural products, application of sensors, optical systems for processing. Acquaintance with material properties important in finishing processes. Getting to know the system, methods and techniques of processing agricultural products. Preparation of a seminar paper.		
Required Reading:		
Weekly Contact Hours:	Lectures: 2	Practical work: 2
Teaching Methods: Theoretical teaching Physical properties of fruits, vegetables, medicinal and spice plants. The influence of agrobiological factors on product quality. Harvesting, transportation, and quality preservation. Quality preservation factors. Physiology of fruit and vegetable storage. Systems for subcooling delivered fruits and vegetables. Preparation for storage. Storage and storage technology. Storage systems, controlled and modified atmosphere, technical solutions to support modern warehouses. Modified atmosphere in transport. Green market preparation technology. Packaging and packaging material. Packaging standards. Packaging for large distribution centers. Management for remote markets. Brand production concept. Legislation. Regulations on the quality of fruits and vegetables, sanitary and hygienic conditions. Practical teaching Measurements of physical sizes of fruits, vegetables and medicinal herbs, dimensions, volume, bulk density, resistance to external mechanical force. Laboratory exercises on the effect of temperature and relative humidity on shelf life. Exercises to preserve the quality of decorative and cut flowers in a modified atmosphere.		
Knowledge Assessment (maximum of 100 points):		

Pre-exam obligations	points	Final exam	points
Active class participation	10	written exam	60
Practical work		oral exam	
Preliminary exam(s)	20	
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.