

Course Unit Descriptor

Study Programme: Agricultural engineering and information systems			
Course Unit Title: Informatics			
Course Unit Code: 19.URV006			
Name of Lecturer(s): Prof. Dr. Tihomir S. Zoranovic			
Type and Level of Studies: Undergraduate , level 1			
Course Status (compulsory/elective): Compulsory			
Semester (winter/summer): Summer			
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: Acquisition of basic knowledge in the field of informatics and information technologies, necessary for work in the agricultural profession.			
Learning Outcomes: Computer skills for a professional career as an agricultural engineer.			
Syllabus:			
<i>Theory</i>			
Data. Information. Digital computers. PC hardware structure. PC software (operating systems, user programs). Algorithms. Programming languages. Computer networks. Rules of identification on computers. Internet and its functioning. Methods of connecting to the Internet. Safety rules on the Internet. Internet services. The social network. Data organization. Basics of database structure. Optimization. Operation of Decision Support Software (DSS).			
<i>Practice</i>			
Measuring the amount of information. PC architecture and components. Analysis of the most popular operating systems (Windows, Linux, Android, MacOS). Basic tools of operating systems. Advanced work on user programs (Word, Excell, Power Point). Symbols of algorithms. Procedural thinking. Connecting the computer to the network and the Internet. Internet protocols, domain, html. Advanced Internet Search. Analysis of examples of Internet attacks and identity theft. The structure of simple relational database models. Optimization on examples from agriculture (optimal sowing structure, optimal production, maximization of profit, minimization of transport costs, minimization of production costs, etc.).			
Required Reading:			
Zoranović T., Informatics, textbook, Faculty of Agriculture, Novi Sad, 2021.			
Zoranović T., Applied informatics, collection of tasks, Faculty of Agriculture, Novi Sad, 2016.			
Srđević B., Informatics, textbook, Faculty of Agriculture, Novi Sad, 1996.			
Internet resources (by updating materials on the Faculty's website)			
Weekly Contact Hours:	Lectures: 2x15=30	Practical work: 2x15=30	
Teaching Methods: Lectures are lecture-based. Practical classes are held in the Informatics laboratory. It combines working on computers, creating assignments and working on the Internet (e-mail, web, Word, Excel, etc.).			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points 60	Final exam	points
Active class participation	5	written exam	
Practical work	5	oral exam	40
Preliminary exam(s)	2 x 25	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			

