

Course Unit Descriptor

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| Study Programme: Agriculture engineering and information technology | | | |
| Course Unit Title: Informatics in agriculture | | | |
| Course Unit Code: 19.PTI006 | | | |
| Name of Lecturer(s): Marko Kostić | | | |
| Type and Level of Studies: Undergraduate academic studies | | | |
| Course Status (compulsory/elective): compulsory | | | |
| Semester (winter/summer): winter | | | |
| Language of instruction: serbian/english | | | |
| Mode of course unit delivery (face-to-face/distance learning): face-to-face | | | |
| Number of ECTS Allocated: 6 | | | |
| Prerequisites: no | | | |
| Course Aims: Introducing students to the principles of functioning of information and communication systems that are applied in agricultural technology. | | | |
| Learning Outcomes: Students will be able to practically use information and communication technologies applied in agricultural technology. | | | |
| Syllabus: <i>Theory</i> Computer systems. Computer technical system. Computer software system. Computer networks. Internet and internet services. Web technologies. Database. Sensors, classification, types. Biosensors, classification, application in agriculture. Remote data collection using satellites and airplanes. Data transmission standards (ISOBUS). Precision agriculture. Information and communication technologies in the management of agricultural machinery and technological processes in the production, processing and processing of agricultural product. Use of the Internet for remote servicing and maintenance of agricultural machinery and equipment. <i>Practice</i> Introducing students to information and communication technology used in agricultural technology. Practical work on computers and devices on agricultural machines and plants. | | | |
| Required Reading: 1. Kostić M. Precision agriculture, University of Novi Sad, 2021. 2. Kostić M., Rakić D., Savin L., Dedović N., Simikić M. 2016. Application of an original soil tillage resistance sensor in spatial prediction of selected soil properties. Computers and Electronics in Agriculture, 127(2016): 615-624. 3. Kostić, M., Rajković, M., Ljubičić, N. et al. Georeferenced tractor wheel slip data for prediction of spatial variability in soil physical properties. Precision Agric (2021). | | | |
| Weekly Contact Hours: | | Lectures:2 | Practical work:2 |
| Teaching Methods: Teaching methods Teaching is carried out through lectures and exercises. Methods of presentation, demonstration, simulation are used. Consultations and seminar papers. Some of the exercises are performed in the Internet room. | | | |
| Knowledge Assessment (maximum of 100 points): | | | |
| Pre-exam obligations | points | Final exam | points |
| Active class participation | 5 | written exam | |
| Practical work | 5 | oral exam | 60 |

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| Preliminary exam(s) | 15 | | |
| Seminar(s) | 15 | | |
| The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc. | | | |