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| Course: | *Information Technology* |
| Course id: 3ОАЕ4О16 |
| Number of ECTS: 6 |
| Teacher: | Prof. Bojan M. Srđević, PhD; Tihomir S. Zoranović, PhD, Assistant professor; |
| Assistant: |  Blagojević D. Boško |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures: 3 | Tutorials: 4 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None |
| 1. Educational goal

Acquisition of the fundamental knowledge in the field of informatics and information technologies, required for working in agricultural professions.  |
| 1. Educational outcomes

Skills in information technologies for a professional career of an engineer in agriculture.  |
| 1. Course content

*Theoretical Instruction*Introduction. Discrete information and data. Digital computers. Computer platforms (mainframe, supercomputers and personal). Hardware and software. Operative systems and environments. Numeral and semantic systems. Computer-based problem solving. Algorithmisation. Programming languages. Information and communication technologies and multimedia. Computer networks and protocols. Internet. Internet services. Information systems in agriculture. Data organization (logical and physical). Models and data bases. Software for data bases management. Software tools in agriculture. Applications (linear programming, statistical methods and packages, transport models, networks and resource allocation, decision-making, etc.).*Practical Instruction*Measuring the amount of information (Shannon’s law and Hartley’s theorem). Architecture and components of digital computers. Numeric, alphabetic and alphanumeric environments of personal computers and systems (examples). Computer-based problem solving (algorithmisation). Overview of the features of the main new generation programming languages. Information technologies and multimedia. Examples. Internet searches and e-mail. Protocols. Information systems in agriculture. Examples from the domestic and international practice. Computer-based data organization (entities, entity classes, features and data, domains). Logical and physical data organization in data bases. Software for data bases management. Software tools in agriculture. Examples of application. |
| 1. Teaching methods

Lectures are presented orally. Practical work takes place in laboratory for informatics and it includes computer work, assignments and working on internet (e-mail, web, Word, Excel, etc.).  |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam  | Mandatory | Points |
| Lecture attendance | Yes/No | 5 | *Written exam* | Yes | 50 |
| Practical work | Yes/No | 5 | *Oral part exam* |  | 40 |
| Tests  | Yes/No | 2 x 25 |
| The final exam is taken orally at the end of semester, and it covers all the topics from the curriculum. The grade is formed on the basis of the written tests 1 and 2, students’ attendance at both theoretical and practical classes, and the oral exam. |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Srđević, B. | Informatika p.226 | Faculty of Agriculture Novi Sad | 1996 |
|  |  | Internet resources (updating materials on the Faculty web site)  |  |  |