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| Course: | | *Statistical Methods* | | | | | | | | |
| Course id:3ОАЕ3О13 | |
| Number of ECTS:6 | |
| Teacher: | | Beba S. Mutavdžić; Emilija B. Nikolić-Đorić | | | | | | | | |
| Course status | | Mandatory | | | | | | | | |
| Number of active teaching classes (weekly) | | | | | | | | | | |
| Lectures: 3 | | Tutorials:3 | | | Other teaching types: | | Study research work: | | Other classes: | |
| Precondition courses | | Statistics | | | | | | | | |
| 1. Educational goal   Students who already have knowledge about the basis of descriptive and inferential statistics are to widen their knowledge about several areas of statistics which are broadly used in agricultural economics. | | | | | | | | | | |
| 1. Educational outcomes   Gaining abilities to choose and apply proper statistical methods when analysing data related to agriculture and agricultural economics. Those abilities can be applied in other courses taken during studies and in scientific research. | | | | | | | | | | |
| 1. Course content   *Theoretical instruction*  Space of elementary events. The concept of accident probability. Probability characteristics. Conditional probability. Total probability formula and Bayes’ theorem. Decision theory. Decisions based on a priori information. Decision based on expected utility. Sample information: Bayes’ analysis. Sample plans. Simple random sampling. Stratified sample. Systematic sample. Sample with uneven probability of unit choice. Group sampling. Statistical quality control. Operational curve. Double sample. Proportion control chart. Measured characteristics control chart. Multiple regression. Parameter assessment of multiple linear regression. Statistical conclusions about regression parameters. Variables choice in multiple regression. Multiple co-linearity. Autocorrelation. Partial and multiple correlation. Non-linear regression. Square regression. Exponential regressions. The application of non-linear regression in time series analysis: parabolic and exponential tendency.  *Practical instruction*  Accident probability. Conditional probability. Probability of dependent and independent accidents. The application of probability formula and Bayes’ theorem. Decision theory. Stratified sample. Statistical quality control. Multiple regression. Curvilinear regression. Time series analysis. | | | | | | | | | | |
| Teaching methods  Lectures, tutorials, introduction to statistical software, homework, tests | | | | | | | | | | |
| Knowledge evaluation (maximum 100 points) | | | | | | | | | | |
| Pre-examination obligations | | | Mandatory | Points | | Final exam | | Mandatory | | Points |
| Lecture attendance | | | Yes/No | 5 | | *Tests or Written exam*  *Oral exam* | | Yes | | 40  50 |
| Tests | | | Yes/No | 20 + 20 | |  | | | | |
| Tutorials | | | Yes/No | 5 | |
|  | | | Yes/No |  | |
| Literature | | | | | | | | | | |
| Ord. | Author | | Title | | | Publisher | | | | Year |
|  | Hadživuković S. | | Statistički metodi, Drugo prošireno izdanje | | | Poljoprivredni fakultet, Novi Sad | | | | 1991 |
|  | Nikolić-Đorić E., Čobanović K. | | Rešeni primeri i zadaci za vežbu iz statističkih metoda | | | Poljoprivredni fakultet, Novi Sad | | | | 2008 |
|  | Hadživuković S., Zegnal R., Čobanović K. | | Regresiona analiza | | | Privredni pregled, Beograd | | | | 1982 |
|  | Maletić, R. | | Metodi statističke analize u poljoprivrednim i biološkim istraživanjima | | | Univerzitet u Beogradu, Poljoprivredni fakultet | | | | 2005 |