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| Course: | Statistical methods |
| Course id: 3ОУВ4О20 |
| Number of ECTS: 4 |
| Teacher: | Dr Beba Mutavdžić (Teacher), Emilija B Nikolić-Đorić (Assistant) |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures: 2 | Practical classes:2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | Mathematics |
| 1. Educational goal

The program of this course allows students to become familiar with the use of modern statistical methods in solving problems in the field of agricultural and biological sciences. Students should familiarize themselves with descriptive methods and methods of analysis of experimental results. |
| 1. Educational outcomes

Through the teaching process, students should acquire the ability to use statistical methods and their application in agricultural, biological and related fields. Acquired abilities and appropriate use of statistics and its methods allow students to successfully solve problems in the future work and in obtaining an education. |
| 1. Course content

Theoretical lessonsSubject matter and observation units. Population and sample. Classification and presentation of statistical data. Numerical descriptive measures. Theoretical distributions. Discrete and continuous probability distributions. Sampling plan. Simple random sampling. Statistical inference. The sampling distribution. Basic principles of parameter estimation. Determination of sample size. The concept and principles of hypothesis testing. Regression and correlation. Choice of regression function. Simple linear regression. Estimation of regression coefficients. Linear correlation. Statistical inference of regression parameters and correlation coefficient. Coefficient of correlation.Practical classesAnalysis of numerical series. Theoretical distributions. The sampling distribution. The point and the confidence interval estimation of the population meanandproportion. Hypothesis testing. Regression and correlation. Nonparametric statistics.  |
| 1. Teaching methods

Lectures, Practice/ Practical classes, Consultations |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam  | Mandatory | Points |
| Lecture attendance | Yes | 10 | *Theoretical part of the exam/Oral part of the exam/* | Yes | 40 |
| Test | Yes | 40 |  |
| Exercise attendance | Yes | 10 |
| Other | No |  |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Hadživuković, S. | Statistical Methods | Agricultural faculty, Novi Sad | 1991. |
|  | Lozanov-Crvenković Z. | Statistics | Faculty of Sciences, Novi Sad | 2012. |
|  | Чобановић К | Examples and exercises in Statistics | Agricultural faculty, Novi Sad | 2003. |
|  | Montgomery, M., Runger, G.C., Huble, N. E. | Engineering Statistics | John Wiley & Sons, Inc. | 2011. |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationUNDERGRADUATE ACADEMIC STUDIES *WATER MANAGMENT* |
| Table 5.2 Course specification |