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| Course: | **Basic Principles of Quantitative Genetic** |
| Course id:3МГО1О02 |
| Number of ECTS:6 |
| Teacher: | Full professors: dr Sofija Petrović, dr Miodrag Dimitrijević Teaching assistant: dr Borislav Banjac |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures:45 | Practical classes:45 | Other teaching types:0 | Study research work:0 | Other classes:0 |
| Precondition courses | None/navesti ako ima |
| 1. Educational goal

The aim of the course is to introduce students with the general genetic processes and principles in small and large genetic populations and quantifying phenotypic and genetic variability, as well as the causes of these variations. |
| 1. Educational outcomes

Students who successfully complete the master course is qualified for further development through doctoral studies in the direction of scientific work in quantitative and population genetics, as well as scientific and professional work in plant breeding. |
| 1. Course content

Introductory lecture; Genetic structure of population; Changes in gene frequency in the population; Small populations and Inbreeding; Components of phenotypic variabillity; Genetic determination of quantitative traits; Heritability; Combining ability; The importance of genetic variability for the survival of organisms; Factors evolution of genetic population |
| 1. Teaching methods

Lectures, Consultations, Research work. |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam | Mandatory | Points |
| Lecture attendance | Yes | 5 | *Written part of the exam-tasks and theory+Oral part of the exam/* | Yes | 30+30 |
| Test | Yes | 3x10 |  |
| Exercise attendance | Yes | 2.5 |
| *Term paper* | Yes | 2.5 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Borojević S., Borojević K. | Genetika | University of Novi Sad, Faculty of Agriculture | 1976 |
|  | Dimitrijević M., Petrović S. | Genetika populacije. Adaptabilnost i stabilnost genotipa | University of Novi Sad, Faculty of AgricultureInstitute of Field and Vegetable Crops | 2005 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES *Genetics, plant breeding and seed production* |
| Table 5.2 Course specification |