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| Course: | **Mathematics** |
| Course id: 3ОВВ1И35; 3ОФМ1И39;3ОАГ1И39; 3OOП1И46;3ОХК1И37; 3OРT1И01 |
| Number of ECTS: 6; 6; 6; 6; 6; 6 |
| Teacher: | **Snežana J. Matić-Kekić, Nebojša M. Dedović** |
| Course status | Elective |
| Number of active teaching classes (weekly) |
| Lectures: 2 | Practical classes: 2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None |
| 1. Educational goal

Mastering the skills and knowledge of subject content, which provides the basis for mathematical modeling of agro-economic phenomena and their exploitation in practice. |
| 1. Educational outcomes

Student qualifies for mathematical modeling of agro-economic phenomena and actively pursuing them. |
| 1. Course content

Real functions. Linear, quadratic, exponential, logarithmic, trigonometric functions and degrees. Sequences and limits of the functions. Asymptote of the functions. Derivative of the function (first and higher order). Local extreme values and intervals of monotonicity. Concave and convex functions. Graphic of the functions. Economic functions: interval of profitability, profits, demand, supply, revenues, costs, flexibility in the point and its interpretation. Integral calculus: primitive functions, method of substitution, partial integration and the integration of rational functions. Application of definite integrals. |
| 1. Teaching methods: Lectures
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| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Lecture attendance | Yes | 5 | *Oral part of the exam* | Yes | 45 |
| Test | Yes | 45 |  |
| Exercise attendance | Yes | 5 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Konjik S., Dedović N. | Mathematics - a collection of tasks for the students of Faculty of Agriculture (in Serbian) | Faculty of Agriculture, University of Novi Sad | 2011. |
|  | Hadzić O., Takači Đ. | Mathematics for students of natural sciences (in Serbian) | University of Novi Sad, university textbooks - Edition 76 | 1998. |
|  | Matić-Kekić S. | Economic mathematics for students of biological sciences (in Serbian) | Faculty of Agriculture, University of Novi Sad | 2006. |

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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: Fruit Growing and Viticulture, Phytomedicine, Plant and Environment Protection, Organic Agriculture, Horticlture, Field and Vegetable Crops |
| Table 5.2 Course specification |