|  |  |
| --- | --- |
| Course: | *Mathematical Models in Animal Nutrition* |
| Course id: 3MST1I07 |
| Number of ECTS: 6 |
| Teacher: | Dragan Glamočić |
| 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/navesti ako ima |
| 1. Educational goal

Acquisition of practical knowledge from the field of mathematical models and modern software in animal nutrition. Training students for direct work with software in feed production, as well as for improving animal nutrition. |
| 1. Educational outcomes

Ability of professional application of knowledge. Ability to use and analyze scientific literature, gather and interpret relevant information for making judgments, devise and defend arguments and solve problems in animal nutrition. Ability to communicate information, ideas, problems and solutions. |
| 1. Course content

*Theory lessons*Spreadsheets. Mathematical modeling and application of mathematical models in animal nutrition. Application of optimization of ration composition, diets and premixes. Mathematical models for the evaluation of the energy value of feedstuffs and diets. Mathematical models for the evaluation of feed values. Mathematical models for calculating the nutritional requirements of animals. Computer programs for the preparation of rations, diets and premixes.*Practical teaching: Exercise, Other modes of teaching, Study research work*Using spreadsheets. Using programs for the evaluation of the energy value of food, determining the feed values, calculating the needs of domestic animals, preparing rations, diets and premixes. |
| 1. Teaching methods

Lectures, Practice/ Practical classes |
| 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 |
|  |  |  |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Glamočić D. | Ishrana preživara, praktikum | Poljoprivredni fakultet, Novi Sad | 2002 |
|  | National Research Council | Nutrient requirement of dairy cattle | National Academies Press, Washington, USA | 2001 |
|  | France, J., Kebreab, E. | Mathematical models in animal nutrition | Cab international, Wallingford, UK | 2008 |

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