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| Course: | **APPLIED ZOOLOGY** |
| Course id: 3МFM1О01 |
| Number of ECTS: 5 |
| Teachers: | **Dragana V. Rajković, PhD, professor; Aleksandar D. Jurišić, PhD, assistant professor;** **Aleksandra P. Petrović, MSc, 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 | None |
| 1. Educational goal

Education and training students for independent identification and determination of bio-ecological characteristics of animal groups in nature (as free living organisms) and the laboratory conditions, important for agriculture, medicine and veterinary sciences. Training students for the breeding of important animal groups and application of appropriate control measures all in accordance with good agricultural practice, veterinary and medicine ethics. |
| 1. Educational outcomes

Students who have theoretical and practical knowledge in the identification of biological material, knowledge in field of biology, ecology and ethology of given species, as well as the ability to adequately assess and apply appropriate control measures. Trained students in accurate monitoring of bio- and ecosystems. |
| 1. Course content

*Theoretical classes*Systematic and taxonomy of certain animal groups important to agriculture, veterinary and medicine. Biology, ecology and ethology of given animal groups. Vector capacity, ecological, ethological and sociobiological patterns of animal behavior. Predation and parasitism. The development of different behavior patterns influenced by numerous ecological and anthropological factors. Diurnal and other ecological rhythms, space-time orientation. Communication and social behavior. The breeding of important animal groups and their introduction in agroecosystems (natural enemies of phytophagous mites and nematodes). Control measures (with emphasize on biological control of phytophagous and parasitic species) and integrated pest management (definition, regulations, strength and weakness aspects). The application of monitoring systems in plant and environment protection. The concept and design of different control measures for potential pests organisms in zones with different levels of protection. *Practical training: Other types of teaching* Taxonomy and identification of given animal groups. Preparation and making entomological and acarological collections. Basic principles of breeding certain animal groups. Application of appropriate experimental and laboratory methods. Forecasting models and warning systems for outbreak of free-living and occurrence of quarantine species. |
| 1. Teaching methods

Lectures: the methods of oral presentations (power-point) and discussions, demonstrations and illustrations. Practical laboratory and experimental methods. Case studies and field research. |
| 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 | 2030 |
| Test | No | - |  |
| Exercise attendance | Yes | 5 |
| *Research work**Seminar papers* | Yes | 2020 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Hickman, Jr. C.P., Roberts, L.S., Keen, S.L., Larson, A., I’Anson, H., Eisenhour, D.J. | Integrated Principles Of Zoology | McGraw-Hill, New York, USA, 14th Ed. | 2008 |
|  | Chen, Z. X., Chen, S.Y., Dickson, D.W. | Nematology - Advances and Perspectives. Volume II: Nematode Management and Utilization. | Tsinghua University Press China & CABI Publishing UK/USA. | 2003 |
|  | Krantz, G.W., Walter, D.E. | A manual of acarology. 3rd ed. | Texas Tech University Press, USA. | 2009 |
|  |  | EPPO Standards, Guidelines | http://www.eppo.int | 1997, 1999, 2001 and 2003 |

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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 IN PLANT MEDICINE |
| Table 5.2 Course specification |