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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Pedagogical Faculty in Vranje |
| **GENERAL INFORMATION** |
| Study program  | **Methods of Class Teaching** |
| Study Module (if applicable) |  |
| Course title | Modern understanding of nature |
| Level of study | ☐Bachelor ☐ Master’s \* **Doctoral** |
| Type of course | ☐ Obligatory \* **Elective** |
| Semester  |  Autumn \*Spring |
| Year of study  | I |
| Number of ECTS allocated | 15 |
| Name of lecturer/lecturers | Dragana Stanojević Ph, D. |
| Teaching mode |  \***Lectures**  ☐Group tutorials ☐ Individual tutorials ☐Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| The aim of the subject : Students should understand current theories about the structure, interactions and systems at different levels of organization in nature; Understand the physical basis of the generation, transformation and transmission of different forms of energy in nature; Understand the bio-geo-chemical cycles and the uniqueness of the cycle of life on the planet Earth; Understand the scientific method, how scientists design experiments to come to the knowledge of nature; Understand how modern scientific research contribute to the understanding of the nature and development of technology and how science and technology contribute to the development of society; Understand the problems arising under the influence of human activities on nature, ways of solving and prevention.Outcome : Doctoral students will gain a deeper biological, chemical and physical knowledge and skills necessary for the proper - the modern understanding of nature and the world around us and the formation of a scientific basis for the modern concept of nature and society. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Course content: Live and inanimate nature - diversity, unity and interdependence. Modern man and nature. The relationship of man to other living beings and inanimate nature. Modern understanding of nature and religion; Current theories about the structure, interactions, systems, at different levels of organization in nature; Functioning of physical, chemical and biological experimental system where they measure different parameters and gain knowledge about nature; Energy problems on Earth; The consequences of excess or shortage of some form of energy to nature; Modern science, nature and new (bio) technologies for the 21st century;Prevention and able to efficiently solve problems arising under the negative influence of modern man on nature. |
| **LANGUAGE OF INSTRUCTION** |
| ☐**Serbian (complete course)** ☐ English (complete course) ☐ Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)☐Serbian with English mentoring ☐Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** |  | **Written examination** | **50** |
| **Practical teaching** |  | **Oral examination** | **50** |
| **Teaching colloquia** |  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |