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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Sciences and Mathematics |
| **GENERAL INFORMATION** |
| Study program  | **Physics** |
| Study Module (if applicable) |  |
| Course title |  |
| Level of study | ☐Bachelor ☐ Master’s x Doctoral |
| Type of course | ☐ Obligatory x Elective |
| Semester  |  x Autumn ☐Spring |
| Year of study  | 2nd |
| Number of ECTS allocated | 15 |
| Name of lecturer/lecturers | Dejan R. Dimitrijević |
| Teaching mode |  ☐Lectures ☐Group tutorials x Individual tutorials ☐Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Students are expected to acquire higher understanding of various aspects of Philosophy of Science. By the end of the course, they should be ready to apply their skills of logical thinking and problem analysis to different branches of modern physics. They should also be able to recognize different forms of scientific explanation, characteristic to various directions in the modern day Philosophy of Science.*  |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Explanation in science and in physics. Logical status of the Newtonian mechanics. Space and geometry in physics. Alternative geometries and Theory of Relativity. Causality, indeterminism and chance in classical and quantum mechanics. Reduction of physical theories.** |
| **LANGUAGE OF INSTRUCTION** |
| xSerbian (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** | **20** | **Written examination** |  |
| **Practical teaching** |  | **Oral examination** | **50** |
| **Teaching colloquia** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |