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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) | General physics; Applied and Experimental Physics; Physics-Informatics |
| Course title | History and Philosophy of Physics |
| Level of study | ☐Bachelor x Master’s ☐ Doctoral |
| Type of course | x Obligatory ☐ Elective |
| Semester  |  ☐ Autumn x Spring |
| Year of study  | 2nd |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Dejan R. Dimitrijević |
| Teaching mode |  x Lectures ☐Group tutorials ☐ Individual tutorials ☐Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Students are acquainted with the historical development of physical science and the accompanying scientific worldview. The most important results of physics and fundamental laws of nature are interpreted and analyzed.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **The historic overview of the development of physics from antiquity, to middle ages and renaissance, to modern times. Galileo, Newton and the rise of classical mechanics. Probability, thermodynamics and statistical physics. Electromagnetism and optics. Scientific revolutions of the 20th century. Space-time, relativity, symmetry and quantum mechanics. Basics of the philosophy of quantum mechanics. Problems of measurement and interpretation of quantum mechanics. Elements of the philosophy of science: Logical Positivism, Kuhn, Popper.** |
| **LANGUAGE OF INSTRUCTION** |
| x 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** | **20** | **Written examination** |  |
| **Practical teaching** | **20** | **Oral examination** | **40** |
| **Teaching colloquia** | **20** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |