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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  |  |
| **GENERAL INFORMATION** |
| Study program  | **General physics, applied physics** |
| Study Module (if applicable) |  |
| Course title | Statistical physics |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [x]  Obligatory [x]  Elective |
| Semester  |  [ ]  Autumn [x] Spring |
| Year of study  | 1 |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Ana M. Mančić |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [ ] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *The objective of this course is to develop an understanding of concepts and ideas of quantum and nonequilibrium statistical physics. After completing this course, students should be able to apply acquired knowledge in practice and in the future research and education.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Elements of quantum statistical physics (basic concepts, Fermi-Dirac statistics and Bose-Einstein statistics, behaviour of particles at temperatures close to apsolute zero); Elements of nonequilibrium statistical physics (dynamical functions and evolution; reduced distribution functions and correlation functions; elements of kinetic theory; Hydrodynamic theory and transport, Brownian motion).** |
| **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** | **5** | **Written examination** | **30** |
| **Practical teaching** | **20** | **Oral examination** | **30** |
| **Seminars** | **15** |  |  |
| **Teaching colloquia** |  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |