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| **Study program** Chemistry | | | | |
| **Course title** Physics | | | | |
| **Name of lecturer/lecturers** Suzana Stamenković | | | | |
| **Type of course** Obligatory | | | | |
| **Number of ECTS allocated** 5 | | | | |
| **Course objectives**  Expanding basic knowledge from a general physics course for a better understanding of physico-chemical and  chemical phenomena. The goal of the course is to enable students to independently approach problem analysis  related to the application of physical principles in chemistry, the subsequent acquisition of the necessary knowledge that enables understanding and solving the considered problems, as well as the correct interpretation of the obtained results.  Practical teaching, in addition to giving students the opportunity to use simple measuring devices,  enables practical verification of some basic physical laws. | | | | |
| **Course outcomes**  Ability of students to understand basic physical laws and the possibility of using them  acquired knowledge during the study of physical phenomena encountered in chemistry at higher years  study. | | | | |
| **SYLLABUS**  *Lectures*  Measurement, physical quantities and their units. Mechanics and dynamics of a material point and a rigid body.  Gravity. Work, energy, strength. Mechanical oscillations and waves. Fluid mechanics. Heat and  molecular-kinetic theory. Thermodynamics. Electrostatics. Electricity. Magnetic effect  currents and electromagnetic induction. Electromagnetic oscillations and waves. Optical phenomena. Physics  microcosm - atomic physics, quantum phenomena, nuclear physics.  *Laboratory work*  Experimental (laboratory work) accompanying the program of the lecture. | | | | |
| **References**  1. Suzana Stamenković, Osnovi fizike Univerzitet u Nišu, PMF, Niš, 2019.  2. Jevrem Janjić, Ištvan Bikit, Nikola Cindro, Opšti kurs fizike. Deo 1; Deo 2; Naučna knjiga,  Beograd, 1987.,  3. Milan Kurepa, Jagoš Purić, Osnovi fizike : mehanika i molekularna fizika sa termodinamikom;  Milan Kurepa, Jagoš Purić, Osnovi fizike : elektromagnetizam, optika, fizika atoma i jezgra. Naučna  knjiga, Beograd, 1991.  4. V. Vučić, Osnovna merenja u fizici, Nauka, Beograd, 2000 | | | | |
| **Active teaching classes** | **Lectures** 45 | | **Laboratory work** 15 | |
| **Teaching mode** | | | | |
| **ASSESSMENT METHODS AND CRITERIA (Max 100 points)** | | | | |
| **Pre exam duties** | **Points** | **Final exam** | | **Points** |
| Activity during lectures | 5 | Written examination | |  |
| Practical teaching | 15 | Oral examination | | 50 |
| Teaching colloquia | 30 |  | |  |
| Seminar |  |  | |  |