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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 | Optics |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [x]  Obligatory [ ]  Elective |
| Semester  |  [ ]  Autumn [x] Spring |
| Year of study  | second |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Saša Gocić, Željko Mladenović |
| Teaching mode |  [x] Lectures [x] Group tutorials [ ]  Individual tutorials [ ] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Qualifying students in understanding the physical principles in the field of geometrical and wave optics; solving specific experimental and computational problems; connect basic knowledge in various fields of classical physics and their application; the use of optical instruments. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Electromagnetic nature of light. The plain electromagnetic waves and their polarization. The speed of light. Propagation of light in dielectrics. The basic laws of geometrical optics. Applied geometrical optics, lens and microscopes. Photometry. Wave optics. Interference, diffraction and polarization of light. Optical instruments. Light in anisotropic environments. Optical activity. Light scattering. |
| **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** | **20** |
| **Practical teaching** | **10** | **Oral examination** | **25** |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |