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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Sciences and MathematicsDepartment of Biology and Ecology |
| **GENERAL INFORMATION** |
| Study program  | Biology |
| Study Module (if applicable) | / |
| Course title | Cell physiology |
| Level of study | ☐Bachelor ☒ Master’s ☐ Doctoral |
| Type of course | ☐ Obligatory ☒ Elective |
| Semester  |  ☐ Autumn ☒Spring |
| Year of study  | first |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Perica Vasiljević |
| Teaching mode |  ☒Lectures ☐Group tutorials ☐ Individual tutorials ☒ Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| **Understanding of basic cellular and molecular mechanisms in different physiological processes: membrane transport, biosynthesis in GA and ER, transduction of signals, cell-cell and cell-ECM interactions, cancer biologa, mechanisms of programmed cell death.** |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Cell membrane physiology. Membrane pumps. Membrane canals. Hemiosmotic cycle. Epithelial transport. Regulation of cell volume. Thermodynamics of biological systems. Signaling pathways. Cell receptors. Signal integration.** |
| **LANGUAGE OF INSTRUCTION** |
| ☒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** | **10** | **Written examination** | **20** |
| **Seminar** | **20** | **Oral examination** | **30** |
| **Teaching colloquia** | **20** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |