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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | **Faculty of Sciences and Mathematics****Department of Biology and Ecology** |
| **GENERAL INFORMATION** |
| Study program  | **Biology** |
| Study Module (if applicable) | / |
| Course title | **Human Genetics** |
| 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 | Tatjana Mitrović |
| Teaching mode |  ☒Lectures ☐Group tutorials ☐ Individual tutorials ☐Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☒ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Acquiring of knowledge about the organization and function of human genome. Understanding of mechanisms of the occurrence of genetic mutations, genetic diseases and their transmission to the offspring. Understanding of mechanisms of genetic inheritance and variability in human populations.*  |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Dynamic organization of the nucleus and chromosomes. The correlation between structure and function of the chromatin. Karyology and karyotyping. Classical karyotiping (banding теchnics). Molecular karyotiping (FISH, M-FISH, SKY and mBAND). The maintenance of the number of the human chromosomes. Gene and chromosome mutations. Monogenetic, polygenetic and multifactorial inheritance of human traits and diseases. Genomic imprinting. Uniparental disomy. Chromosomopathies. Prenatal diagnostics of chromosomopaties. Genetic determination of sex. Human genetics of the population.** |
| **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** | **5+5** | **Written examination** | **/** |
| **Practical teaching** | **20** | **Oral examination** | **40** |
| **Teaching colloquia** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |