

Study program: Special Education and Rehabilitation			
Type and level of studies: Basic Academic Studies			
Title of the subject: Human Genetics			
Lecturer: Maksic M. Jasmina			
Course status: Obligatory			
ECTS: 4			
Prerequisites: No prerequisites			
Aim: Understanding the inheritance in the realization of each individual's biopotential, as well as in growth and development disorders, with isolated or combined damage. Introducing with methods of molecular genetics and their implementation in early diagnosis and treatment.			
Outcomes: Training graduated students for observation and recognition a genetic part in growth and development disorders (anomalies and hereditary diseases), as well as individual or teamwork with other specialties, from genetic consultant to creation and realization prevention program.			
Content <i>Lectures:</i> Determination of growth and development of the individual; Principles of inheritance; DNA as a hereditary substance, genetic code, gene - concept, structure, function; Gene-protein-phenotype; Regulation of gene activities, gene interactions, variability; Human genome; Gene mutations; Mutagenesis; Mendelian diseases and types of inheritance; Multifactorial diseases; Genes and populations; Population screening and prenatal diagnosis; Application of molecular genetics methods; Genetic diagnosis and genetic counseling; Oncogenetics; Immunogenetics; Behavioral genetics; Genetic and non-genetic causes of speech disorder; Genetic and non-genetic causes of hearing disorder; Genetic and non-genetic causes of visual disturbance; Genetic and non-genetic causes of mental retardation; <i>Practical work:</i> Cell-genetic aspect; Chromosomes, structure and role, nomenclature, methods of chromosome analysis; Gametogenesis; Chromosomal aberrations; Chromosomal diseases; Mitochondrial DNA; Mitochondrial diseases; Determination and differentiation of gender; Pregnancy; Teratogenesis; Perinatal pathology; Newborns; Congenital anomalies.			
Literature 1. Ninković, D. (2007). Medicinska genetika, Fakultet za specijalnu edukaciju i rehabilitaciju, CIDD, Beograd. ISBN 978- 86-80113-55-5. 250. str. 2. Ninković, D. (2000). Medicinska genetika, opšti deo, Zavod za udžbenike i nastavna sredstva, Beograd. ISBN 86-17-08237-2. 22. strane. 3. Diklić, V., Kosanović, M., Nikoliš, J., Dukić, S. (2001). Biologija sa Humanom genetikom, Medicinska knjiga, Beograd. ISBN 9788683615032. 73. strane. 4. Matić, G. (2004). Osnovi molekularne biologije, Biološki fakultet, Beograd. 55. strana. 5. Marinković, D. (1989). Genetika, Naučna knjiga, 494 strana, Beograd. ISBN 86-23-23058-2. 20. strana.			
Number of active classes per week:	Lecture: 3	Practical work: 1	
Teaching methods: Oral presentation, video presentation, discussion			
Evaluation of knowledge (maximum score 100)			
Pre obligations	Score	Final exam	Score
activities during the lectures	10	written exam	50
practical teaching	10	oral exam	
midterm(s)	20	
seminars	10		