Faculty of Medicine / MEDICINE / BIOETHICS AND BIOMEDICINE

Course:	BIOETHICS AND BIOMEDICINE			
Course ID	**Course status**	**Semester**	**ECTS credits**	**Lessons** (Lessons+Exercises+Laboratory)
11140	Mandatory	5	3	3+0+0
Programs	MEDICINE			
Prerequisites	No prerequisites required			
Aims	Introducing students to the development of ethics in medicine, basic ethical principles and an innovative bioethical approach to moral issues imposed by the implementation of modern scientific and technical achievements in the field of biomedicine, primarily in the domain of the application of genetic testing, medically assisted human reproduction, gene editing, cloning, transplantation of human organs and tissues; artificial intelligence, animal and human experimental medicine. Acquaintance with the activities of national and international institutions engaged in the protection of human rights and dignity in the field of bioethics.			
Learning outcomes	After completing the course the student will be able to: 1. Understands and knows how to describe basic terms: ethics, morality, ethical theories, principles, ethical approaches to key medical topics. 2. Knows the fields of biomedicine within which bioethical challenges are recognized, knows how to describe the impact of new biomedical technologies on health and human rights and the impact on the human community. 3. Knows the principles of the bioethical approach in research on humans and experimental medicine on animals and recognizes bioethical challenges in the field of research in medicine. 4. Knows the current bioethical principles and activities of national and European institutions regarding the protection of human rights and the dignity of human beings in the application of biomedicine. 5. Is able to apply basic bioethical guidelines in medical practice. 6. Is able to analyze and confront moral norms, to independently judge and argue positions in the key bioethical dilemmas of modern humanity, which he may face in professional and public life.			
Lecturer / Teaching assistant	Full professor Olivera Miljanović, MD, PhD, Full professor Aneta Bošković, MD, PhD and Assist. Professor Novak Lakićević, MD, PhD			
Methodology	Lectures, workshops, simulations, seminars and consultations.			
Plan and program of work				
Preparing week	Preparation and registration of the semester			
I week lectures	Introduction to the subject. Scientific progress and life and health in a biomedical-bioethical perspective. Conceptual definition and definition of ethics.			
I week exercises				
II week lectures	Sociological genesis of morality. Positive and negative moral personality traits.			
II week exercises				
III week lectures	Ethics in medicine - moral obligations of health workers towards patients			
III week exercises				
IV week lectures	Ethical problem in certain medical disciplines.			
IV week exercises				
V week lectures	Great and eternal ethical dilemmas.			
V week exercises				
VI week lectures	Presentation of seminar papers.			
VI week exercises				
VII week lectures	Biomedicine and human genome testing. Genetic counseling and protection of genetic data. "Incidental" findings, the right to "know / not know" the result of genetic testing.			
VII week exercises				
VIII week lectures	Medically assisted human reproduction and bioethical principles. Preimplantation and prenatal diagnosis, abortion, prenatal sex selection and gender imbalance. "Surrogate" motherhood.			
VIII week exercises				
IX week lectures	Ethics of biomedical research. Clinical studies, informed consent to research. Experiments on humans, animals and corpses. Bioethical code of experimental animals.			
IX week exercises				

X week lectures	Bioethical principles of organs, tissues and cells donation and transplantation. Prevention of "trafficking" in tissues, organs and cells.
X week exercises	
XI week lectures	Cloning, stem cells and gene editing, eugenics - bioethical challenges.
XI week exercises	
XII week lectures	Bioethics of new technologies, artificial intelligence, clinical bioethics, personalized medicine.
XII week exercises	
XIII week lectures	Bioethical institutionalization - Importance and activity of international bioethical organizations and protection of human rights and dignity in biomedicine: Declaration of Helsinki, Nuremberg Code, UNESCO, WHO.
XIII week exercises	
XIV week lectures	Bioethics in Europe - Committee on Bioethics of the Council of Europe - The Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicineand its additional protocols ("Oviedo Convention"). Application of bioethical principles in Montenegro.
XIV week exercises	
XV week lectures	Presentation of seminar papers.
XV week exercises	
Student workload	In semester Classes and final exam: (4 hours) x 16 = 64 hours Necessary preparations before the beginning of the semester (administration, registration, certification): (4 hours) x 2 = 8 hours Total workload for the course: 3 x 30 = 90 hours Load structure: 64 hours (classes and final exam) + 8 hours (preparation) + 18 hours (supplementary work) Obligations of the student during the course: Attending classes, actively participating in seminars, independent preparation of materials for seminars, solving set problems independently and in a group.

Per week	Per semester
3 credits x 40/30=4 hours and 0 minuts 3 sat(a) theoretical classes 0 sat(a) practical classes 0 excercises **1 hour(s) i 0 minuts** of independent work, including consultations	Classes and final exam: **4 hour(s) i 0 minuts x 16 =64 hour(s) i 0 minuts** Necessary preparation before the beginning of the semester (administration, registration, certification): **4 hour(s) i 0 minuts x 2 =8 hour(s) i 0 minuts** Total workload for the subject: **3 x 30=90 hour(s)** Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) **18 hour(s) i 0 minuts** Workload structure: **64 hour(s) i 0 minuts (cources), 8 hour(s) i 0 minuts (preparation), 18 hour(s) i 0 minuts (additional work)**
Student obligations	Attending classes, actively participating in seminars, independent preparation of materials for seminars, solving set problems independently and in a group.
Consultations	Online and live in agreement with the professor
Literature	Turza K. Medicina i društvo – Uvod u medicinsku etiku. Medicinski fakultet Beograd, 2015. www.coe.int/en/web/bioethics/home http://www.who.int/ethics/en/ http://www.unesco.org/new/en/social-and-human-sciences/themes/bioethics/ https://ec.europa.eu/research/ege/index.cfm
Examination methods	Class attendance - 10 points Two seminar papers of 15 points each - a total of 30 Final written exam 60 points Grade: Passed / passed or not passed / passed Passed exam implies cumulatively accumulated at least 50 points
Special remarks	None
Comment	None

Grade:	F	E	D	C	B	A
Number of points	less than 50 points	greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points