

Name of the course	“Test Tube” Baby			Code	MSESES06
Type of study program:	Integrated university studies, Medicine			Year of study:	3
Credits (ECTS):	1.5	Semester:	VI	Number of hours per semester (l+s+e)	25 (10+10+5)
Status of the course:	elective	Preconditions:	According to the Rulebook	Comparative conditions:	/
Access to course:	Third year medical students			Hours of instructions:	According to schedule
Course teacher:	Associate professor Snjezana Mardesic MD PhD				
Consultations:	As agreed with students				
E-mail address and phone number:	sbrakus@gmail.com				
Associate teachers:	Prof. Katarina Vukojevic MD PhD				
Consultations:	As agreed with students				
E-mail address and phone number:					
The aims of the course:	The aim of the course is to enable students to understand and gain knowledge about the increasing occurrence of infertility, its causes and treatments.				
Learning outcomes (general and specific competences):	<p>After the end of the course, students will be able to:</p> <ul style="list-style-type: none"> - Identify, describe and explain the most important causes of male and female infertility - Name and explain different types of assisted reproduction techniques - Name and explain the most relevant achievements in the field of assisted reproduction - Identify and explain the positive and negative sides of assisted fertilization. - Critically judge educational materials (articles and lectures), and participate in argumentative discussions and construct opinions - Describe the Ethical aspects of IVF 				
Course content (Syllabus):	<p>Lectures: Anatomy of genital tract; Embryology of genital tract; History of “test tube baby”; Causes of male and female infertility.</p> <p>Seminars: IVF and age? Surrogacy: moral and ethical issue; Types of assisted reproduction techniques.</p> <p>Exercises: Sperm selection: What can we learn from mother Nature? Chromosomes in Humans; Laboratory practice and methodology overview.</p>				
Format of instruction (mark in bold)	Lectures	Exercises	Seminars	Independent assignments	
	Consultations	Work with mentor	Field work	Other	
	Remarks: In practicals students search for scientific articles going through PubMed database to collect the data from the newest literature about IVF.				
Student responsibilities:	Attending the classes and prepare for the seminars; searching the literature; active participation in lectures, seminars and practicals; final exam.				
Screening student work: (mark in bold)	Class attendance	Class participations	Seminar essay	Practical training	
	Oral exam	Written exam	Continuous assessment	Essay	
Detailed evaluation within a European system of points					
STUDENTS RESPONSIBILITIES	HOURS	PROPORTIONS OF ECTS CREDITS		PROPORTIONS OF MARK	
Class attendance and participations	25	0.9		30%	
Seminar essay	10	0.3		30%	

Written exam	10	0.3	40%
Total	45	1.5	100%
Further clarification: Assessment of students' performance will be based on their general activity during the course. It will include active participation in the debates. Students will have an assignment in which they need to analyze an article and answer to 5 questions from the analyzed article. Evaluation is descriptive (pass/fail).			
Required literature:	<p>Assisted Reproductive Technology National Summary Report, US DEPARTMENT OF HEALTH AND HUMAN SERVICES Centers for Disease Control and Prevention, 2014</p> <p>Tan TY, Lau SK, Loh SF, Tan HH., Female ageing and reproductive outcome in assisted reproduction cycles. Singapore Med J. 2014 Jun;55(6):305-9.</p> <p>Pokulniewicz M, Issat T, Jakimiuk A. In vitro fertilization and age. When old is too old? Prz Menopauzalny. 2015 Mar;14(1):71-3</p> <p>Sharma R , Agarwal A, Rohra VK , Assidi M, Abu-Elmagd M. TurkiRF. Effects of increased paternal age on sperm quality, reproductive outcome and associated epigenetic risks to offspring. Reprod Biol Endocrinol. 2015 Apr 19;13:35.</p> <p>Deonandan R. Recent trends in reproductive tourism and international surrogacy: ethical considerations and challenges for policy. Risk Manag Healthc Policy. 2015 Aug 17;8:111-9</p> <p>Saxena P , Mishra A, Malik S. Surrogacy: Ethical and legal issues.Indian J Community Med.2012 Oct;37(4):211-3</p> <p>Sakkas D, Ramalingam M, Garrido N, Barratt CL. Sperm selection in natural conception: what can we learn from Mother Nature to improve assisted reproduction outcomes? Hum Reprod Update. 2015 Nov;21(6):711-26</p>		
Optional literature:			
Additional information about the course	<p>Means of course quality control: Student questionnaire Quality analysis by students and teachers Analysis of student passing rate Office for course quality control report Self-evaluation and out of institutional evaluation (visits by quality control teams)</p>		

Annexes: calendar classes

<i>The number of teaching units</i>	TOPICS AND LITERATURE
I.	Title: Anatomy and embryology of genital tract
	Short description: Definition and the types of genital tract malformation; application of therapeutic potential in science and every-day life.
	Literature: required and optional
II.	Title: History of “test tube baby”
	Short description: Development of reproduction techniques during the history
	Literature: required and optional
III.	Title: Causes of male and female infertility
	Short description: Genetic, environment and PID as a cause of infertility
	Literature: required and optional
IV.	Title: Types of assisted reproduction techniques
	Short description: Differences between insemination and in vitro fertilization
	Literature: required and optional
V.	Title: IVF and age
	Short description: Does IVF in elderly woman impact the life births ratio
	Literature: required and optional