

<i>Name of the course</i>	“Test tube” baby			Code																					
<i>Type of study program Cycle</i>	Integrated studies – Medicine on English			Year of study	3																				
<i>Credits (ECTS) :</i>	1,5	<i>Semester</i>		Number of hours per semester (1+e+s)	10+10+5																				
<i>Status of the course:</i>	elective	<i>Preconditions:</i>		<i>Comparative conditions:</i>																					
<i>Access to course:</i>	3 rd year			<i>Hours of instructions:</i>																					
<i>Course teacher:</i>	Associate professor Snjezana Mardesic MD PhD																								
<i>Consultations:</i>																									
<i>E-mail address and phone number:</i>	sbrakus@gmail.com																								
<i>Associate teachers</i>	Prof. Katarina Vukojevic MD PhD																								
<i>Consultations:</i>																									
<i>E-mail address and phone number:</i>																									
<i>The aims of the course:</i>	Understanding and gaining knowledge about the increasing occurrence of infertility, its causes and treatments.																								
<i>Learning outcomes (general and specific competences):</i>	<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), participate in argumentative discussions and construct opinions - Describe the Ethical aspects of IVF 																								
<i>Course content (Syllabus):</i>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"><u>Lectures (10 hours):</u></td> <td style="width: 40%; text-align: right;"><u>Number of hours:</u></td> </tr> <tr> <td>Anatomy of genital tract</td> <td style="text-align: right;">3</td> </tr> <tr> <td>Embryology of genital tract</td> <td style="text-align: right;">3</td> </tr> <tr> <td>History of “test tube baby”</td> <td style="text-align: right;">2</td> </tr> <tr> <td>Causes of male and female infertility</td> <td style="text-align: right;">2</td> </tr> <tr> <td colspan="2"><hr/></td> </tr> <tr> <td><u>Seminars (10 hours):</u></td> <td style="text-align: right;"><u>Number of hours:</u></td> </tr> <tr> <td>IVF and age?</td> <td style="text-align: right;">4</td> </tr> <tr> <td>Surrogacy : moral and ethical issue</td> <td style="text-align: right;">4</td> </tr> <tr> <td>Types of assisted reproduction techniques</td> <td style="text-align: right;">2</td> </tr> </table>					<u>Lectures (10 hours):</u>	<u>Number of hours:</u>	Anatomy of genital tract	3	Embryology of genital tract	3	History of “test tube baby”	2	Causes of male and female infertility	2	<hr/>		<u>Seminars (10 hours):</u>	<u>Number of hours:</u>	IVF and age?	4	Surrogacy : moral and ethical issue	4	Types of assisted reproduction techniques	2
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	Exercises (10 hours):		Number of hours:	
	Sperm selection: What can we learn from mother Nature?		2	
	Chromosomes in Humans		2	
	Laboratory practice and methodology overview		1	
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 data base to collect the data from the newest literature about IVF. Attending the classes and prepare for the seminars.			
Student responsibilities	Final exam; searching the literature, active participation in lectures, seminars and practicals.			
Screening student work (mark in bold)	Class attendance	Class participations	Seminar essay	Practical training
	Oral exam	Written exam	Continous assesment	Essay
Detailed evaluation within a <i>European system of points</i>				
STUDENTS RESPONSIBILITIES	HOURS	PROPORTIONS OF ECTS CREDITS	PROPORTION S OF MARK	
Class attendance and participations		0,5	30%	
Seminar essay		0,5	30%	
Written exam		0,5	40%	
Oral exam				
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. According to the regulations of the study, final grade is obtained: A = 91-100% 5 B = 79 to 90% 4 C = 67 to 78% 3 D = 55 to 66% 2 F = 0 to 54% 1				
Required literature:	Assisted Reproductive Technology National Summary Report, US DEPARTMENT OF HEALTH AND HUMAN SERVICES Centers for Disease Control and Prevention, 2014			

	<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. Turki RF. 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>
<i>Optional literature:</i>	<p>Junqueira LC, Carneiro J, Kelley RO. Basic Histology, 13th Edition: Text and Atlas</p> <p>Sadler TW. Langman's Medical Embryology, 12th Edition</p> <p>Sapunar D, Saraga Babić M. Puljak L, Vukojevic K, Lovric-Kojundzić S, Carev D. Histology atlas on CD. University of Split School of Medicine, Split, Croatia</p> <p>Sobotta – Histology atlas</p>
<i>Additional information about the course</i>	<p>Quality control analysis by the students and peers, Passing exams proportion analysis, University of Mostar Committee for the teaching quality control report, Extramural evaluation (National agency team for quality control, TEEP)</p>

Annexes: calendar classes

<i>The number of teaching units</i>	TOPICS AND LITERATURE
<i>I.</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
<i>II.</i>	Title: History of “test tube baby”
	Short description: Development of reproduction techniques during the history
	Literature: required and optional
<i>III.</i>	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