BEFORE WE WERE BORN	
GENERAL INFORMATION	
Course coordinator	Professor Tatjana Belovari, MD, PhD
Assistant/Associate	Assistant Professor Andrijana Müller, MD, PhD Assistant Professor Nikola Bijelić, PhD
Study Programme	Integrated undergraduate and graduate university study of Medicine
Status of the course	Elective
Year of study, semester	2nd year, 4th semester
ECTS	**2**
Workload (hours)	Seminars (25)
Expected number of students	30
COURSE DESCRIPTION	
Course objectives	
The students acquire additional knowledge about human prenatal development, basics of which are taught in the Histology and embryology course. Apart from learning about the fundamental developmental processes and the relevant phases of the early embryonic period, the students are acquainted with teratology and teratogenic factors using different examples, for the purpose of prevention of possible consequences. Thanks to collaboration with the Department for Gynecology and Obstetrics, University Hospital Centre Osijek, the students gain understanding of the importance and application of the acquired knowledge in clinical practice.	
Enrolment requirements and entry competencies	
Anatomy and Biology exam passed.	
Learning outcomes at the Programme level	
1.1., 2.1., 2.3., 3.4.	
Learning outcomes (5-10 outcomes)	
After completing lectures, seminars and exercises, individual learning and passing the exam, the students will be able to: 1. Interpret the differences between organogenesis and spermatogenesis and key processes in early embryonic development 2. Critically evaluate the role of key processes in the embryonic development (cleavage, implantation, gastrulation, neurulation) and their importance for the normal human body development 3. To reason on teratology principles, types of teratogens and the clinical importance of understanding normal embryo development for medically assisted reproduction, ultrasound pregnancy monitoring and prenatal diagnostics 4. Compare the basic properties of stem cells and their sources	
Course content	
Gametes, gametogenesis, fertilization mechanism, implantation, early embryonic death, extrauterine pregnancy, gastrulation, neurulation, embryonic membranes - importance for normal and impaired fetal development, medically assisted reproduction for infertile couples, fetal age, Carnegie stages, developmental parameters, clinical importance of ultrasound in pregnancy monitoring, experimental models in studying the early embryonic development, embryonic stem cells in experimental embryology.	
Mode of teaching	

Seminars

Student obligations

All types of classes and all knowledge tests are mandatory. Justified absence from 30% of classes is allowed.

Monitoring student work *(alignment of learning outcomes, teaching methods and grading)*

Teaching activity	ECTS	Learning outcome	Student activity	Assessment methods	Grade points	
					Min.	Max.
Attending classes	0.2	1-4	Attendance at classes	Keeping records	6	10
Seminars	0.4 0.4	1-4	Active participation and presentation at seminars	Records of activity and presentation at seminars	12 2	20 20
Final exam	1	1-4	Learning for the final exam	Written exam	30	50
Total	**2**				**50**	**100**

Evaluation of the written part of the final exam:

Percentage of correct answers (%)	Grade points
60.00-69.99	30
70.00-79.99	35
80.00-89.99	40
90.00-94.99	45
95.00-100.00	50

Calculation of final grade:

The points granted for the written exam are added to the grade points awarded during class attendance. The grading process is conducted by absolute distribution, i.e., based on total achievements, and compared to the numerical system in the following manner:

Exam passed: 50 points or more

Required reading (available in the library and through other media)

Title	Number of copies in the library	Availability through other media
1. Sadler TW: Langmanova medicinska embriologija, 10. izd. Školska knjiga, Zagreb, 2008.	25	

Additional reading

1. Selected scientific and technical articles

Course evaluation procedures

Anonymous, quantitative, standardized student survey on the course and the teacher's work implemented by the Quality improvement office of the Faculty of Medicine Osijek.

Note/Other

E-learning is not included in the class quota, but it is used in teaching, and it contains links to various sites and video and audio materials available on websites.