

DESCRIPTION OF THE COURSE OF STUDY

Course code	0912.7.LEK.B.E	
Name of the course in	Polish	Embriologia
	English	Embriology

1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1. Field of study	medicine
1.2. Mode of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study*	General academic
1.5. Person/s preparing the course description	Dr Agnieszka Radowicz-Chil
1.6. Contact	agnieszka.radowicz-chil@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Language of instruction	English
2.2. Prerequisites*	

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	Lectures (L): 10 h, Practical classes (PC): 10 h	
3.2. Place of classes		
3.3. Form of assessment	Exam: Credit with grade:	
3.4. Teaching methods	Lectures: Practical classes:	
3.5. Bibliography	Required reading	Langman's Medical Embryology 2024
	Further reading	

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED LEARNING OUTCOMES

<p>4.1. Course objectives (including form of classes)</p> <p>Lectures</p> <p><i>C1. To provide students with a comprehensive understanding of the basic concepts of human embryology, including the stages of development from fertilization to birth.</i></p> <p><i>C2. To explain the molecular, genetic, and cellular mechanisms underlying normal embryonic development.</i></p> <p><i>C3. To describe the formation and differentiation of germ layers, tissues, and organ systems during prenatal development.</i></p> <p><i>C4. To discuss the causes and mechanisms of congenital malformations and their clinical significance.</i></p> <p>Practical Classes</p> <p>C1. To enable students to identify and describe the key stages of human embryonic and fetal development using microscopic and macroscopic specimens.</p> <p>C2. To develop practical skills in the recognition of developmental structures and their derivatives in histological slides and models.</p>
<p>4.2. Detailed syllabus (including form of classes)</p> <p>Lectures</p> <p><i>Introduction to Embryology</i> <i>Gametogenesis and Fertilization</i> <i>Development of the Body Plan and Folding of the Embryo</i> <i>Development of Organ Systems (Organogenesis)</i></p> <p>Practical Classes</p> <p><i>1. Laboratory Safety and Introduction to Embryological Materials</i></p> <p><i>Principles of laboratory safety and microscope use.</i></p> <p><i>Overview of materials: microscopic slides, 3D models, and digital resources.</i></p>

Orientation to early embryonic structures.

2. Fetal Development and Growth

Comparison of embryos and fetuses at different developmental stages.

Recognition of morphological changes and proportional growth.

4.3 Intended learning outcomes

Code	A student, who passed the course	Relation to learning outcomes
within the scope of KNOWLEDGE:		
W01	... The stages of development of human embryo, structure and function of fetal membranes and placenta as well as the stages of development of individual organs and the influence of harmful agents on human embryo and fetus (teratogenic agents);	A.W4.
within the scope of ABILITIES:		
U01	... Recognize histological structures of organs, tissues, cells and cellular structures on the optical or histological microscope images, describe and interpret the structure and relations between the structure and the function;	A.U2.
within the scope of SOCIAL COMPETENCE:		
K01	... Recognize his/her own limitations and self-evaluate educational deficiencies and needs;	K.S5.
K02	... Use reliable information sources;	K.S7.
K03	... Conclude on the basis of own surveys and observations;	K.S8.
K04	... Introduce rules of social conduct and teamwork to the group of specialists, including specialists from other medical professions also in the multicultural and multinational environment;	K.S9.
K05	... Give opinions concerning various aspects of professional activity;	K.S10.
K06	... Take responsibility for own decisions made during professional activities including own safety and safety of other people.	K.S11.

4.4. Methods of assessment of the intended learning outcomes

Teaching outcomes (code)	Method of assessment (+/-)																										
	Exam oral/written*			Test*			Project*			Effort in class*			Self-study*			Group work*			Others* e.g. standardized test used in e-learning								
	Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes								
	L	P	C	...	L	P	C	...	L	P	C	...	L	P	C	...	L	P	C	...	L	P	C	...	L	P	C
W01	+																										
U01							+																				
K01-K06																										+	

*delete as appropriate

4.5. Criteria of assessment of the intended learning outcomes

Form of classes	Grade	Criterion of assessment
lecture (L)	3	51-60%
	3,5	61-70%
	4	71-80%
	4,5	81-90%
	5	91-100%
Practical classes (PC)	3	51-60%
	3,5	61-70%

	4	71-80%
	4,5	81-90%
	5	91-100%

5. BALANCE OF ECTS CREDITS – STUDENT’S WORK INPUT

Category	Student's workload
	Full-time studies
<i>NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/</i>	20
<i>Participation in lectures*</i>	10
<i>Participation in classes, seminars, laboratories*</i>	10
<i>Preparation in the exam/ final test*</i>	
<i>Others (please specify e.g. e-learning)*</i>	
<i>INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/</i>	40
<i>Preparation for the lecture*</i>	20
<i>Preparation for the classes, seminars, laboratories*</i>	20
<i>Preparation for the exam/test*</i>	
<i>Gathering materials for the project/Internet query*</i>	
<i>Preparation of multimedia presentation</i>	
<i>Others *</i>	
<i>TOTAL NUMBER OF HOURS</i>	60
ECTS credits for the course of study	3

**delete as appropriate*

Accepted for execution (date and legible signatures of the teachers running the course in the given academic year)

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