



Educational objectives (max. 6 items)

C1. Acquaintance of the students with normal human embryonic development and fetal development.

C2. Acquaintance of the students with the development of organs and systems and the mechanisms organ anomalies formation.

C3. Presentation of causes, types and mechanism of congenital anomalies formation with emphasis on their genetic and environmental background.

Education result matrix for module/course in relation to verification methods of the intended education result and the type of class

Number of course education result	Number of major education result	Student who completes the module/course knows/is able to	Methods of verification of intended education results (forming and summarising)	Form of didactic class <i>**enter the abbreviation</i>
K 01	A.W6. B.W27	describes the processes of gametogenesis and fertilization	oral or written response, quiz	SE
K 02	A.W6.	explains all the stages of normal human prenatal development	oral or written response, quiz	SE
K 03	A.W6.	describes the structure and function of fetal membranes and placenta	oral or written response, quiz	SE
K 04	A.W6. B.W30	explains the formation of developmental disorders of organs and systems, understands their causes.	oral or written response, quiz	SE
K 05	A.W1.	knows the embryological nomenclature in English	oral or written response, discussion, quiz	SE
S 01	A.U5.	uses embryological terminology in written and spoken form	oral or written response, discussion, quiz	SE
S 02	B.U14.	solves problems involving the logical use of embryological knowledge	oral or written response, discussion, quiz	SE

** L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .

Please mark on scale 1-5 how the above effects place your classes in the following categories:
communication of knowledge, skills or forming attitudes:

Knowledge: 5

Skills: 3

Student's amount of work (balance of ECTS points)

Student's workload (class participation, activity, preparation, etc.)	Student Workload (h)
1. Contact hours:	30
2. Student's own work (self-study):	9
Total student's workload	39
ECTS points for module/course	3



Comments	
Content of classes (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)	
Lectures -	
Seminars (SE)	
<ol style="list-style-type: none"> 1. Molecular basis of development (2 hours) 2. Gametogenesis: meiosis, oogenesis, spermatogenesis (2 hours) 3. 1st week: from ovulation to implantation (2 hours) 4. 2nd-3rd week: germ disc and germ layers (2 hours) 5. 3rd-8th week: organogenesis, embryonic period (2 hours) 6. 9th week to birth: fetal period (2 hours) 7. Fetal membranes and placenta (2 hours) 8. Development of pharyngeal apparatus (head and neck) (2 hours) 9. Development of respiratory and digestive systems (2 hours) 10. Development of cardiovascular system (2 hours) 11. Development of muscular, skeletal and integumentary system (2 hours) 12. Development of urogenital system (2 hours) 13. Development of nervous system (2 hours) 14. Birth defects (2 hours) 	
Practical classes -	
Other -	
Basic literature (list according to importance, no more than 3 items)	
1. Langman's Medical Embriology. T.W. Sadler; Lippincott Williams & Wilkins	
Additional literature and other materials (no more than 3 items)	
1. The Developing Human. Clinically Oriented Embryology. Keith L. Moore, T.V.N. Persaud; Saunders Elsevier.	
2. Before we are Born. Essentials of Embryology and Birth Defects. Keith L. Moore, T.V.N. Persaud, Mark G. Torchia; Saunders Elsevier	
Didactic resources requirements (e.g. laboratory, multimedia projector, other...)	
Seminar classroom, laptop, multimedia projector, whiteboards	
Preliminary conditions (minimum requirements to be met by the student before starting the module/course) -	
Conditions to receive credit for the course (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades)	
The subject ends with getting credit with a grade (not an exam).	
The condition for completing the course is an oral answers from individual seminars and a minimum of one presentation on a given topic, a maximum of two. For each presentation the student may receive 0-3 points.	
Students who receive less than 2 points for presentations are obliged to write the final test of the whole material. Test form: written, 30 single-choice questions. A minimum of 16 correct answers required to pass a pass mark. Other criteria are presented in the table below.	
Each absence must be made up, including rector's and dean's days, in the form of a written paper on topics that were at the time the subject of the class.	



Grade:	Criteria for course
Very Good (5.0)	7-6 points/ test 29-30 points
Good Plus (4.5)	5-6 points / test 26-28 points
Good (4.0)	4-5 points / test 23-25 points
Satisfactory Plus (3.5)	3-4 points / test 21-24 points
Satisfactory (3.0)	1-2 points/ test 16-20 points

Name of unit teaching course:	Division of Histology and Embryology
Address	Ul. Chałubińskiego 6a 50-368 Wrocław
Phone	71 784 13 54 (55), fax: 71 784 00 82
E-mail	an.kowalczyk@umed.wroc.pl

Person responsible for course:	Prof. dr hab. Marzenna Podhorska-Okołów
Phone	71 784 16 70
E-mail	marzenna.podhorska-okolow@umed.wroc.pl

<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Sylwia Borska	PhD	medical biology	adiunct	SE

Date of Syllabus development

27.06.2019

Syllabus developed by

Dr Urszula Ciesielska

Signature of Head of teaching unit

Uniwersytet Medyczny we Wrocławiu
ZAKŁAD HISTOLOGII I EMBRIOLOGII


prof. dr hab. Piotr Dziegiele

Signature of Faculty Dean

Wrocław Medical University
FACULTY OF MEDICINE
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Prof. Andrzej Hendrich, PhD