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| **Name of a course / module** | **Histology and Embryology 2024/2025** |
| **Name of a department where course is held** | **Department of Histology and Embryology, Medical University of Bialystok** |
| **E-mail of department** | **histolog@umb.edu.pl** |
| **Faculty of** | Medicine with Division of Dentistry and Division of Medical Education in English |
| **Name** **of a field of study** | Faculty of Medicine |
| **Level of education** | First degree studies, Uniform master’s degree studies |
| **Form of study** | full time **×** part time  |
| **Language of instruction** |  English × polish |
| **Type of course** | obligatory × facultative  |
| **Year of study / Semester** | I × II  III  IV  V  VI   |  1 × 2 × 3  4  5  6  7  8  10 11  12  |
| **Introductory courses with preliminary requirements** | Getting credit according to recruitement procedure |
| **Number of didactic hours with specification of forms of conducting classes** | 100 h (with online)lectures – 20hseminary-6hclasses – 74h |
| **Assumptions and aims** **of the course** | The aim of the course is to master by students the necessary knowledge from histology and embryology. The course include the construction and function of cells, histological structure of tissues and organs, as well as general and detailed embryology (stages of human embryonic development). In addition, students recognize tissues and organs from microscopic slides.Classes are taken in didactic classroom equipped with computers and microscopes. Lectures preceding the practical classes are closely linked. |
| **Didactic methods**  | - providing knowledge in a form of a lecture- practical classes – short presentation prepared by teacher, discussion, microscopic slides revision and drawing according to the subject – individual work with student, - consultation -individual consultation with teacher or person responsible for teaching- regular consultation hours for student: |
| **Full name of the person conducting the course** | **Employed scientific and teaching staff**Professor Wiesława Niklińska - Wednesday 11.30 -12.30Assoc. Professor Beata Szynaka – Friday 10.00 -11.00Assoc. Professor Joanna Pancewicz –  Thursday 11.30. -12.30Dr Agnieszka Miąsko- Kłubowicz –  Thursday 10.00 -11.00 Dr Małgorzata Łukasik – Wednesday 11.00-12.00 |
| **Full name of the person responsible for teaching** | Person responsible for teaching – Professor Wiesława Ewa Niklińska, Course coordinator – Assoc. Professor Beata Szynaka  |

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| **Symbol and number of learning outcomes according to the teaching standards and other learning outcomes** | **Description of directional learning outcomes** | **Form of classes** | **Verification methods for achieving intended learning outcomes**  |
| **Knowledge** |
| A.W1. | English and Polish terminology of histology and embryology | lectureclasses | Summarizing methods- written exam - test - practical exam- slides recognition Forming methods,- observation of the student's work- pretest- evaluation of the activity in the classroom- completion of each activity- assessment of preparation for classes- discussion in class- partial tests |
| A.W4. | Basic cell structures and their functional specialization | lectureclasses |
| A.W5. | Micro-architecture of tissues, extracellular matrix and organs, | lectureclasses |
| A.W6. | Stages of embryogenesis, structure and functions of fetal membranes and placenta; stages of development of particular organs | lectureclasses |
| **Skills** |
| A.U1 | Using optic microscope, including immersion | classes | Summarizing methods- practical examination – recognition of microscopic slidesForming methods- observation of the student's work- pretest- evaluation of the activity in the classroom- completion of each activity- assessment of preparation for classes- discussion in class- partial tests |
| A.U2 | Recognizing histological structures of organs, tissues, cells and cell components presented by microscopic images, giving an accurate description and interpretation of their composition and relationships between their structures and functions | classes |
| A.U5  | Using the terminology of anatomy, histology and embryology in speech and writing | classes |
| **Social competence** |
| K1 | Respects medical confidentiality and patient rights |   | Summarizing methodsContinuous assessment by teachers (observation)Forming methods, e.g.,- observation of the student's work- discussion in class |
| K3 | Directs the good of the patient putting them in the first place |   |
| K4 | Is aware of his own limitations and has ability to continuously improving his skills |   |
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| **ECTS points** | 9 |
| **Student Workload** |
| **Form of activity** | **Number of hours to complete the activity** |
| **Classes that require the participation of a teacher** |
| 1. Realization of the course: lectures (according to the curriculum )
 |  20h |
| 1. Realization of the course: classes (according to the curriculum )
 |  74h |
| 1. Realization of the course: seminars; (according to the curriculum)
 |  6h |
| 1. Realization of the course: electives
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| 1. Participation in consultation
 |  30h |
|   | Total hours:130h |
| **Student self-study***1 ECTS point means 25-30 hours of student work in various forms, such as:* |
| 1. Preparation for the theoretical and practical classes (realization of projects, documentation, case description etc.)
 |  35h |
| 1. Preparation for tests/credits
 |  40h |
| 1. Preparation for an exam/final test-credit
 |  30h |
|   | Total hours: 105h |
| The exam is graded according to the following scale:- 60% satisfactory- 80% good- 95% very good |  |
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| **Course contents:**  |
|  | **Topics** |
| 1. A.W1., A.W4., A.U1., A.U2., A.U5.2. A.W1., A.W4., A.W5., A.U1., A.U2., A.U5.3. A.W1., A.W4., A.W5., A.U1., A.U2., A.U5.4. A.W1., A.W4., A.W5., A.U1., A.U2., A.U5.5. A.W1., A.W4., A.W5., A.U1., A.U2., A.U5.6. A.W1., A.W4., A.W5., A.U1., A.U2., A.U5.7. A.W1., A.W4., A.W5., A.W6., A.U1., A.U2., A.U5.8. A.W1., A.W4., A.W5., A.W6., A.U1., A.U2., A.U5.9. A.W1., A.W4., A.W5., A.W6., A.U1., A.U2., A.U5.10. A.W1., A.W4., A.W5., A.W6., A.U1., A.U2., A.U5.11. A.W1., A.W4., A.W5., A.W6., A.U1., A.U2., A.U5.12. A.W1., A.W4., A.W5., A.W6., A.U1., A.U2., A.U5.13. A.W1., A.W4., A.W5., A.W6., A.U1., A.U2., A.U5.14. A.W1., A.W4., A.W5., A.W6., A.U1., A.U2., A.U5.15. A.W1., A.W4., A.W5., A.W6., A.U1., A.U2., A.U5.16. A.W1., A.W4., A.W5., A.U1., A.U2., A.U5.17. A.W1., A.W6., A.U5. | 1.Cytology2. Epithelial tissues 3. Proper connective tissue4. Blood, hematopoiesis5. Muscle tissue6. Nerve tissue7. The circulatory system and its development8. The lymphatic system and its development9. The digestive tract and its development10. The urinary system and its development11. The male reproductive system and its development12. The female reproductive system and its development13. The respiratory system and its development14. The nerve system and its development15. Special sense organs and its development16. Skin and its products17. General embryology |

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| **Obligatory textbook:** *(1-2 pozycje)* |
| Michael H. Ross, Wojciech Pawlina Histology. A Text and Atlas.Leslie P. Gartner, James L. Hiatt. Color Textbook of Histology.Keith L. Moore, T.V.N. Persaud, Mark G. Torchia.Before we are born. Essentials of Embryology and Birth Defects. |
| **Optional textbook:** *(1-2 pozycje)* |
| Jeffrey B Kerr. Functional Histology.T.W. Sadler. Medical Embryology. |

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| **Criteria for assessing the achieved learning outcomes and the form and conditions for receiving credit:**  |
| Conditions for receiving credit is passing all classes and partial tests (practical and theoretical). 10 hours of student’s absence disqualify the student from getting the credit. |

Professor Wiesława Niklińska Assoc. Professor Beata Szynaka

*date and signature of the Head of the Department and Course coordinator 2024/2025*

*30. 09. 2024*