UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYN

of Medicine

Course/module syllabus - part A

48SJ-IIT17
ECTS: 1
YEAR: 2020Z

INTEGRATED AND INTERDISCIPLINARY TRAINING 1
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COURSE CONTENT
CLASSES

1.Development of the nervous system. 2.The axial skeleton, muscular system and limbs development. 3.Formation of the head and neck. 4.Sensory organs and integumentary system. 5. Birth Defects and prenatal diagnosis. 6. Arterial blood supply to the brain. a) Anatomy of the cerebral arterial circle of Willis. b) The extent of blood supply to the brain from individual cerebral arteries. c) Anatomical basis of neurological diseases causing damage to the cerebral cortex. d) Cerebral ischemia, symptoms, clinical consequences. e) Assessment of the efficiency of the arterial circle of the brain. 7. Damage to the brain stem. a) Damage levels and clinical syndromes associated with location of damage. 8. Clinical anatomy of cranial nerves.a) Damage to the cranial nerves. b) Clinical consequences of damage to individual cranial nerves.

LECTURES

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EDUCATIONAL OBJECTIVE:

The main aim of the course "Integrated and Interdisciplinary Training - Embryology" is to provide students with knowledge about the proper prenatal development of humans including pre-embryonic, embryonic and fetal periods, and to present the development of individual organs and systems, as well as basic disorders associated with their development. The purpose of the course is to discuss the most important causes, types and mechanisms of developmental defects as well as their genetic and environmental conditioning. The basic assumption was that learning about prenatal development, the mechanisms guiding this development and the molecular aspect of developmental biology is a necessary introduction to teaching other disciplines in further years of study. The basic part of the teaching is the transfer of knowledge about morphological transformations, thanks to which cells are determined to form different parts of the embryo, fetus and newborn. In the field of clinical neuroanatomy with the anatomical foundations of neurology, the student learns selected neurological issues strictly based on the already acquired anatomical and histological knowledge. The student obtains information on the relationship between basic science and clinical sciences in the field of diseases of the central nervous system. The student obtains theoretical foundations along with the practical transfer of the ability to combine knowledge basic with clinical practice. Selected neurological problems are presented, taking into account basic knowledge that can be used, for example, in the subject of neurological examination.

DESCRIPTION OF LEARNING OUTCOMES FOR THE COURSE IN RELATION TO FIELD AND MAJOR LEARNING OUTCOMES

Codes of learning outcomes in a major field of study:	M/NM+++,
Codes of learning outcomes in a major area of study:	A.U3.+, A.U5.+, A.W1.+, A.W2.+, A.W3.+, A.W4.+, A.W5.+, A.W6.+, B.W21.+, B.W22.+, C.W26.+, D.U16.+, D.U17.+, E.W13.+, K.5+, K.6.+, K.7.+,

LEARNING OUTCOMES:

Knowledge

W1 - In terms of knowledge, the graduate knows and understands: A.W1. - anatomical, histological and embryological terminology in Polish and English; A.W2. - structure of the human body in a topographic approach (upper and lower limb, chest, abdomen, pelvis, back, head, neck) and functional (osteoarticular system, muscular system, circulatory system, respiratory system, digestive system, urinary system, reproductive systems, nervous system and sensory organs, integumentary system); A.W3. - topographic relations between individual organs; A.W4. - basic cellular structures and their functional specializations; A.W5. microarchitecture of tissues, extracellular matrix and organs; A.W6. stages of the human embryo development, structure and function of the fetal membranes and placenta, stages of individual organs development and the influence of harmful factors on the development of the embryo and fetus (teratogenic); B.W21. the activities and mechanisms of regulation of all organs and systems of the human body, including the circulatory, respiratory, digestive, urinary, skin and the relationships between them. B.W22. the reproductive function and mechanism in women and men; C.W26. pathomorphological nomenclature;
W2 - In terms of knowledge, the graduate knows and understands: E.W13. Basic neurological syndromes;

Skills

U1 - in terms of skills, the graduate is able to: A.U3. explains anatomical basis of physical examination A.U5. use anatomical, histological and embryological names in speech and writing; D.U16. show responsibility for improving their qualifications and transferring knowledge to others; D.U17. critically analyze medical literature, including in English, and draw conclusions.

Social competence

K1 - In terms of social competences, the graduate is ready to: K.5. Perceive and recognizing one's own limitations and self-assessing educational deficits and needs; K.6. promoting pro-health behavior; K.7. The use of objective sources of information.

BASIC LITERATURE

1) T. W. Sadler, Langman’s Medical Embryology, 13th edition , wyd. Lippincott Williams & Wilkins, 2014

Course/module:
Integrated and Interdisciplinary Training 1
Fields of education:

Course status:	mandatory
Course group:	B - przedmioty kierunkowe
ECTS code:	
Field of study:	Medicine
Specialty area:	Medicine
Educational profile:	General academic
Form of study:	full-time
Level of study:	uniform master's studies
Year/semester:	1 / 1

Type of course:
Classes

Number of hours per semester/week:	Classes: 15

Teaching forms and methods

Classes(K1, U1, W1, W2) : Classes are held in the form of a multimedia presentation (PowerPoint presentation). Classes are carried out stationary or with remote learning platforms (MOODLE, MS TEAMS, CASE CENTER - virtual microscope). Figures card to complete during classes.

Form and terms of the verification results:

CLASSES: Written test - "Embryology" part: a written test consisting of 20 single-choice test questions. Results are evaluated according to the percentage system of correct answers (0-100%). To credit "Embryology" part of the subject student’s score must be at least 50% of correct answers. Head of deprtment will set the additional test (20 single-choice test questions) for students, who do not fullfill the criteria to credit the "Embryology" part of the course. To pass the additional written test and credit the "Embryology" part of the course student must answer correctly for at least 50% of questions. Semestral grades for the students who credit the semester are evaluated basing on the percentage of correct answers. The grading scale is as follows: 50-68% - grade 3.0, 69-75% - grade 3.5, 76-83% - grade 4.0, 84-89% - grade 4.5, 90-100% - grade 5.0. After passing the retake test, regardless of the number of points obtained, the student receives a grade not higher than 3.0. To credit the course the student is obliged to pass both parts of the course (the embryological and neuroanatomical parts). (K1, U1, W1) ; CLASSES: Part in the discussion - Part in the discussion-Active participation in the discussion of selected topics of neuroanatomy with the anatomical basics of neurology. (K1, U1, W1, W2)

Number of ECTS points:	1
Language of instruction:	English

Introductory courses:

Biology, basic anatomy, basic physiology, neuroanatomy

Preliminary requirements:

Basic knowledge of human biology, anatomy, and physiology. Knowledge of the anatomy of the central nervous system.

Name of the organizational unit offering the course:

SUPPLEMENTARY LITERATURE

1) B. M. Carlson, Human Embryology and Developmental Biology, 6th edition, wyd. MOSBY Elsevier, 2019, t. ., s. .

Katedra Histologii i Embriologii Człowieka,

Person in charge of the course:

prof. dr hab. n. med. Zbigniew Kmieć,

Course coordinators:

dr Jacek Kieżun, , dr Jolanta Kiewisz, , dr Bartłomiej Krazíński, , dr inż. Agnieszka Śliwińska-Jewsiewicka, , mgr Damian Tański, , dr hab. n. med. Monika Barczewska, prof. UWM

Notes:

Base and sequential subject.

Detailed description of the awarded ECTS points - part B

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The awarded number of ECTS points is composed of:

1. Contact hours with the academic teacher:

- participation in: classes	15 h.
- consultation	2 h.
	17 h.

2. Student's independent work:

- the student prepares for classes and a written test through careful analysis, assimilation and consolidation of literature data and multimedia materials published on the department's website and remote education platforms (including moodle, ms teams), which will be used to the extent indicated by the teacher.	8 h.
	8 h.

1 ECTS point = 25-30 h of the average student's work, number of ECTS points = 25 h : 25 h/ECTS = 1,00 ECTS on average: **1 ECTS**

- including the number of ECTS points for contact hours with direct participation of the academic teacher: 0,68 ECTS points,
- including the number of ECTS points for hours completed in the form of the student's independent work: 0,32 ECTS points,