UNIVERSITY
OF WARMIA AND MAZURY
IN OLSZTYN

Faculty of Medicine

Course title: INTEGRATED AND INTERDISCIPLINARY TRAINING 1/4

ECTS credit allocation (and other scores): 1

Semester: autumn

Level of study: ISCED-7 - second-cycle programmes (EQF-7)

Branch of science: Medical and health sciences

Language: English

Number of hours per semester: 15

Course coordinator/ Department and e-mail: prof. dr hab. n. med. Zbigniew Kmieć zkmiec@gumed.edu.pl

Type of classes: classes

Substantive 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. Clinical anatomy of the cerebral arteriar circle (Willis circle). Efficiency rating of cerebral arterial circle and its collateral circulation. Vascular disorders of brain. Cerebrovascular dissease. Clinical syndroms. 7. Anatomical basis of neurological disorders based on cerebral cortical architecture. Brodmann areas in the relation to functional centers within cerebral cortex. Functional areas of the brain. Damage of the brainstem. Brainstem lesions on the different levels, clinical syndromes. 8. Clinical anatomy of cranial nerves. Anatomical basis of neurological examination. Injury and lesions of cranial nerves - clinical signs.

Learning purpose: The essential aim of teaching during the course Integrated and Interdisciplinary Training “Embryology” is introducing medical students into the knowledge of human embryology and normal and abnormal development. Embryology describes the birth defects and how these may be prevented. The primary aim of the Embryology course is to develop in the students the understanding of how the cellular structures and organs’ defines the major functions of tissues and organs in early development. Therefore this course is perceived as part of the syllabus leading to integrated knowledge of structure and function of the human organism both in the state of health and illness. After completing the Embryology course student should acquire a knowledge about: early human development, structure and functions of the fetal membranes and placenta; development of organs and organ systems. In result student will obtain a logical framework for understanding the origins of anatomical and histological structures and pathomechanisms of birth defects. The understanding and knowledge of human embryology allows the physician to accurately advice patients on many issues, such as reproduction, fetal development, and birth defects. The course of embryology provides a bridge between basic (anatomy, histology, genetics) and clinical sciences (obstetrics, pediatrics).

On completion of the study programme the graduate will gain:

Knowledge: this course is perceived as part of the syllabus leading to integrated knowledge of structure and function of the human organism both in the state of health and illness. After completing the Embryology course student should acquire a knowledge about: early human development, structure and functions of the fetal membranes and placenta; development of organs and organ systems.

Skills: student will obtain a logical framework for understanding the origins of anatomical and histological structures and pathomechanisms of birth defects.

Social Competencies: the understanding and knowledge of human embryology allows the physician to accurately advice patients on many issues, such as reproduction, fetal development, and birth defects. The course of

embryology provides a bridge between basic (anatomy, histology, genetics) and clinical sciences (obstetrics, pediatrics).

Basic literature: 1) T. W. Sadler, Langman’s Medical Embryology, 13th edition , wyd. Lippincott Williams & Wilkins, 2014 ; 2) David L. Felten, Anil Shetty, red. wyd. pol. Andrzej Szczudlik,, Atlas neuroanatomii i neurofizjologii Nettera, wyd. Elsevier Urban & Partner, 2012, t. 1, s. 430; 3) Bogusław K. Gołąb, Anatomia czynnościowa ośrodkowego układu nerwowego, wyd. Wydawnictwo Lekarskie PZWL, 2014, t. 1, s. 272; 4) Antoni Prusiński, Neurologia praktyczna, wyd. Wydawnictwo Lekarskie PZWL, 2011, t. 1, s. 500

Supplementary literature: 1) B. M. Carlson, Human Embryology and Developmental Biology, 6th edition, wyd. MOSBY Elsevier, 2019

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 15

Student's independent work: 8