UNIVERSITY
OF WARMIA AND MAZURY
IN OLSZTYN

Faculty of Medicine

Course title: INTEGRATED AND INTERDISCIPLINARY TRAINING 2/4

ECTS credit allocation (and other scores): 1

Semester: spring

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

Branch of science: Medical and health sciences

Language: English

Number of hours per semester: 24

Course coordinator/ Department and e-mail: prof. dr hab. n. med. Zbigniew Kmieć zkmiec@gumed.edu.pl, dr hab. n. med. Anna Żurada anna.zurada@gmail.com

Type of classes: classes

Substantive content

CLASSES: Anatomcal landmarks and clinical and ultrasound anatomy of the head and neck, chest, abdomen and pelvis and upper and lower limbs. Anatomcal basis of internal and surgical examination of the structures and organs of the neck, chest, abdomen and pelvis. Ultrasound (US) terminology: hyperechoic, isoechoic, hypoechoic. Ultrasound machine – how it works, types of ultrousound heads, transducer frequency. Proper selection of the probe for the US examination. Preparation and positioning of the patient for US examination. Application of US examnation in medicine – types and methods of examnations in the neck (thyroid and salivary glands, vessels and lymphatic nodes), abdomen and pelvis (organs and vessels, retroperitoneal spaces) and soft tissue. Clinical classification of the lymph nodes of the neck. Visualization and evaluation of the organs and structures of the neck, abdomen and pelvis during US examnation. Abdominal and pelvic US examination of liver, gallblader, bile ducts, pancreas, spleen, aorta and their branches kidney, urinary bladder, prostatę and uterus – visualization and evaluation. Individual work of the student with the patient – assessement of professionalism, social competences and student-patient relationship. Body cavities development, celoma. Embryological development and formation of cardiovascular and respiratory system, digestive and urogenital system. Birth defects and prenatal diagnosis, clinical embryology. Introduction to medical communication: the theuraputic aspect of communication

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). In the part of medical communication, the student learns the importance of the therapeutic dimension of communication

On completion of the study programme the graduate will gain:

Knowledge: 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.

Skills: 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.

Social Competencies: the course of embryology provides a bridge between basic (anatomy, histology, genetics) and clinical sciences (obstetrics, pediatrics). In the part of medical communication, the student learns the importance of the therapeutic dimension of communication

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Basic literature: 1) T. W. Sadler, Langman’s Medical Embryology, wyd. Lippincott Williams & Wilkins, 2014, t. 13th ed; 2) Berthold Block, Color Atlas of ultrasound anatomy , wyd. Thieme, 2011 ; 3) Steven M. Penny , Pocket Anatomy & Protocols for Abdominal Ultrasound, wyd. LWW, 2019

Supplementary literature: 1) B. M.Carlson, Human Embryology and Developmental Biology, 6th ed, wyd. MOSBY Elsevier, 2019, t. 1 ; 2) Berthold Block., Abdominal Ultrasound: Step by Step, wyd. Thieme, 2015

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 24

Student's independent work: 2