



UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYN
Faculty of Medicine

Course syllabus – part A

USOS Code: 48SJO-PBL24

ECTS: 1.00

Cycle: 2026

Problem Based Learning 2/4 Problem Based Learning 2/4

SUBJECT MATTER CONTENT:

Classes – Clinical, ultrasound anatomy of head and neck, thoracic, abdominal, and pelvic structures. Physical examination: inspection of the chest and abdomen, palpation of the chest and abdomen, percussion and auscultation of the chest and abdomen. Anatomical basis of ultrasound examination of head and neck, abdominal, pelvic structures. Proper selection of a probe for a given examination. Preparation and positioning of the patient for ultrasound examination. Basic selected concepts used in ultrasonography - hyperechoicity, isoechogenicity, hypoechogenicity. Structure of the ultrasound machine, types of ultrasound transducers, frequency of the transducer. Application of ultrasonography in medicine- types of examinations. Application of ultrasonography in diagnosis of head and neck, visualization, ultrasonographic anatomy and evaluation of structures: thyroid gland, vessels of the neck (neurovascular bundle), lymph nodes of the neck, soft tissues, muscles, salivary glands. Clinical division of lymph nodes of the neck. Application of ultrasonography in the diagnosis of organs of the trunk visualization, ultrasound anatomy and evaluation of structures and organs including: lungs and pleural cavities, liver, gallbladder, biliary tract, pancreas, spleen, large vessels of the abdominal cavity and organs of the urinary system and pelvic organs. Individual work, interpretation and understanding of ultrasound images. Introduction to patient communication and standardized patient and simulated - assessment of professionalism, social competence and student-patient relationship.

TEACHING OBJECTIVE:

To learn and understand the clinical interpretations of the issues of ultrasonographic anatomy, the interrelationship between the structure and function of the various organs of the head and neck, as well as the abdominal and pelvic cavities, taking into account the fundamentals of ultrasonography. Basic concepts in ultrasonography, fundamentals and principles of ultrasonographic examination including clinical and topographic anatomy of the structures of the head and neck, chest, abdominal and pelvic cavity and anatomy of superficial structures and interpretation of ultrasound images.

Legal acts specifying learning outcomes:
467/2024;

Discipline: Medicine

Course status: Obligatory

Group of courses: B - major course

ISCED Code: 0912

Field of studies: Medicine

Field: Medicine

Learning profile: -

Form of studies: full-time

Level of studies: uniform master's studies

Year/Semester: 2nd year, Medicine in English

Classes types: Classes;

Classes: Classes (12h);

Language: ANG

Introductory subject: biology, basic anatomy, basic physiology

Prerequisites: Basic knowledge of human biology, anatomy, and physiology.

Organized by the unit:

Coordinators responsible for the course:

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Additional notes:

**DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE
IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS
OF THE SECOND LEVEL LEARNING OUTCOMES FOR
QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH
QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC
DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY**

Symbols for outcomes related to the discipline:

M/NMA_P7S_KO++++, M/NMA_P7S_UW+++, M/
NMA_P7S_WG++

Symbols for outcomes related to the field of study:

K.5+, K.7., K.8., K.6., A.U3., A.U4., E.U15., A.W1.,
B.W7.+

LEARNING OUTCOMES:

Knowledge (W1) – The Graduate knows and understands:

A.W1. the structure of the human body in a topographical and functional approach, including the topographical relationships between individual organs, along with anatomical, histological, and embryological terminology;

Knowledge (W2) – The Graduate knows and understands:

B.W7. physical basics of noninvasive methods of imaging;

Skills (U1) – The Graduate is able to: A.U3. to clarify anatomical basics of the medical examination;

Skills (U2) – The Graduate is able to: A.U4. make conclusions about relations between anatomical structures on the basis of diagnostic tests, in particular from the scope of radiology;

Skills (U3) – The Graduate is able to: E.U15. apply personal protective measures appropriate to the clinical situation;

Social competences (K1) – The Graduate is prepared to: K.5. perceive and recognizing one's own limitations and self-assessing educational deficits and needs

Social competences (K2) – The Graduate is prepared to: K.7. use of objective sources of information

Social competences (K3) – The Graduate is prepared to: K.8. formulate conclusions from their own measurements or observations

Social competences (K4) – The graduate is ready to: K.6. promote healthy behaviors

Symbols for outcomes related to the field of study:

Classes – ['K1', 'K2', 'K3', 'K4', 'U1', 'U2', 'U3', 'W1', 'W2'] – Multimedia presentations (Power Point). Practical exercises, where the student practices the basics of physical examination and ultrasound, and assesses and finds structures in the field of surface anatomy and palpation

**FORM AND CONDITIONS OF VERIFYING LEARNING
OUTCOMES:**

Classes (Colloquium practical) – ['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'U3', 'K3', 'K4'] – OSPE-type practical pass - the pass condition is obtaining more than 60% correct answers and a true / false test- the pass threshold is 60%.

REQUIRED LITERATURE:

1. Color Atlas of ultrasound anatomy

Berthold Block; Thieme; 2022; Pages: ; Tome: ;

COMPLIMENTARY LITERATURE:



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Detailed description of ECTS credits awarded - part B

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Problem Based Learning 2/4

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1. Contact hours with the academic teacher:

- participation in: Classes	12 h
- consultation	2 h
	Total: 14 h

Independent work of a student:

- student's own work	11.00 h
	Total: 11.00 h

contact hours + independent work of a student Total: 25.00 h

1 ECTS credit = 25-30 h of an average student's work, number of ECTS

ECTS Points = 25.00 h : 25 h/ECTS = 1.00 ECTS

Average: 1.00 ECTS

- including the number of ECTS credits for contact hours with the direct participation of an academic teacher - 0.56 ECTS pts

- including the number of ECTS credits for hours of independent work of a student - 0.44 ECTS pts