UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYN

# Course sylabus – part A
# Anatomy

**48SJO-ANATO**
**2024**
**ECTS: 15.00**

**SUBJECT MATTER CONTENT:**

General terms: planes and axes, terms of direction and relation, lines used for the body description, types of bones. Topographical and clinical anatomy of the vertebral column, skull, central nervous system, cranial nerves, head, and neck. Cranial cavities, fossa, borders, foramina, and canals, their contents, and clinical anatomy. Clinical anatomy of paranasal sinuses. External, middle, and inner ear. Clinical anatomy of the cranial nerves: the location and signs of their injury. Topographical and clinical anatomy of the back and upper limb. Spinal nerve and clinical anatomy of the brachial plexus. Bones, joints, and muscles of the upper limb. Topographical elements of the upper limb and its clinical correlations. Heart - morphology, topography, and clinical anatomy. Systemic, pulmonary, and fetal circulation. The autonomic nervous system, morphology, division, and its clinical relevance. Topographical and clinical anatomy of the mediastinum. The development of the peritoneum. Topographical and clinical anatomy of the abdominal and pelvic structures. Topographical and clinical anatomy of the lower limb.

General anatomical terminology including body planes, axes, directional and relational terms, and lines used in body description, as well as types of bones. Topographical and clinical anatomy of the vertebral column, skull, central nervous system, cranial nerves, head, and neck. Cranial cavities and fossae, their borders, contents and clinical relevance. Clinical anatomy of the paranasal sinuses and the external, middle, and inner ear . Clinical Anatomy of cranial nerves, including the location and signs of nerve injuries. The topographical and clinical anatomy of the back and upper limb, spinal nerves, the brachial plexus, bones, joints, muscles. Anatomy of the heart in terms of morphology, topography, and clinical significance, along with systemic, pulmonary, and fetal circulation. The autonomic nervous system is presented with its structure, divisions, and clinical importance. The topographical and clinical anatomy of the mediastinum, development of the peritoneum, and the anatomy of abdominal and pelvic structures. The course concludes with the topographical and clinical anatomy of the lower limb.

**TEACHING OBJECTIVE:**
The aim of the study: each of the students should know the anatomical nomenclature in English, he/she should identify and recognized the principles of the proper human topographical description, axes, and the planes of the human body and the cavities of the human bodies. The students understand the basis of embryological development for comprehensive anatomical structures. They know in

**Legal acts specifying learning outcomes:** 467/2024 (Medicine),
**Status of the course:**
**Group of courses:**
**Discipline**: Medicine

**Program:** Medicine
**Form of studies:**full-time
**Level of studies:** uniform master's studies

**Introductory subject:** Biology

**Prerequisites:** Knowledge about human morphology and physiology

**Coordinators:**

**Marcelina Łopińska,**

**Zenon Pidsudko, zenekp@uwm.edu.pl**

**Katarzyna Polak-Boroń, katarzyna.polak@uwm.edu.pl**

detailed the proper structure of tissues and organs, and they understand the relationship between them and their structures and function. They also know the palpable anatomy. The students have the knowledge and they analyze movements of the joints . They understand the anatomy of various organs in the topographical and systematic and descriptive approach. They are able to identify and correctly name each anatomical structure on the basis of prossections and dissections of the human bodies and on the basis of radiological images ( X-ray, CT, MRI and angiography) and the individual living people as well. The students have the anatomical basis for the interpretation of radiological images with elements of ultrasound, CT and MRI. They apply the theoretical basis of anatomy into the clinic and they properly interpret the clinical situations and clinical cases. They treat the human bodies and the human remains with the highest respect. Each of the students can work alone and in a small discussion group. Together with colleagues, they solve the problems on the basis of anatomical clinical cases.

**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.+, KA7_KO1+, A.U3.+, A.U4.+, A.W1.+

**LEARNING OUTCOMES (Knowledge, Skills, Social competence):**

**K1** (K.5.) The student has the ability perceiving and recognizing one's own limitations and self-assessing educational deficits and needs;

**K2** (K.7.) The student has the ability use of objective sources of information;

**K3** (K.8.) The student has the ability formulate conclusions from own measurements or observations;

**K4** (KA7_KO1) The student treats human bodies and remains with dignity and respect

**U1** (A.U3.) The student can explain the anatomical grounds of physical examination

**U2** (A.U4.) The student can formulate conclusions as to the relations between anatomical structures based on intravital diagnostic tests, especially of the radiological type (plain film, tests with contrast agents, computer tomography, and nuclear magnetic resonance)

**W1** A.W1. The student knows the structure of the human body from a topographical and functional approach, including the topographical relationships between individual organs, along with anatomical, histological, and embryological terminology.

**TEACHING FORMS AND METHODS:**

Classes-['K1', 'U1', 'W1', 'K2', 'U2', 'K3', 'K4']-Classes in the form of: dissecting classes (task-based classes), small discussion groups (task-based classes, contextual classes), peer-teaching classes (task-based classes, contextual classes) and problem-based teaching (PBT), with the selection of the leader (student) of the group. Each class includes an electronic or traditional entrance test from the current and preceding class

- knowledge of the material is assessed by the electronic system and / or assistant during each class on the basis of the solved selection test and completing the message according to the following point scale from 0 points to 10 points (pass from 7 points and more).
- a student who has not passed the entrance test is not allowed to work with the

sectional preparation, but is obliged to immediately complete the theoretical knowledge in current classes,

- if 50% or more positive grades are obtained in a given thematic cycle, the Student is admitted to the colloquium,
- in the case of obtaining less than 50% of positive grades in a given thematic cycle, the Student is not admitted to the first term of the test obtaining an unsatisfactory grade from the first date of the test.

Information on the scope of material in force in a given class must be made available not later than one week before the date of the classes,
The condition of passing the classes and thus obtaining admission to the exam is obtaining positive results from all tests in a given semester.-General terms: planes and axes, terms of direction and relation, lines used for the body description, types of bones. Topographical and clinical anatomy of the vertebral column, skull, central nervous system, cranial nerves, head, and neck. Cranial cavities, fossa, borders, foramina, and canals, their contents, and clinical anatomy. Clinical anatomy of paranasal sinuses. External, middle, and inner ear. Clinical anatomy of the cranial nerves: the location and signs of their injury. Topographical and clinical anatomy of the back and upper limb. Spinal nerve and clinical anatomy of the brachial plexus. Bones, joints, and muscles of the upper limb. Topographical elements of the upper limb and its clinical correlations. Heart - morphology, topography, and clinical anatomy. Systemic, pulmonary, and fetal circulation. The autonomic nervous system, morphology, division, and its clinical relevance. Topographical and clinical anatomy of the mediastinum. The development of the peritoneum. Topographical and clinical anatomy of the abdominal and pelvic structures. Topographical and clinical anatomy of the lower limb.
Lecture-['K1', 'U1', 'W1', 'K2', 'U2', 'K3', 'K4']-PowerPoint presentation, interactive lecture. The material carried out during the lectures falls within the thematic scope of the exam and colloquia. The condition for passing the lectures is 100% attendance. In the case of excused absences, they must be made up for.-General anatomical terminology including body planes, axes, directional and relational terms, and lines used in body description, as well as types of bones. Topographical and clinical anatomy of the vertebral column, skull, central nervous system, cranial nerves, head, and neck. Cranial cavities and fossae, their borders, contents and clinical relevance. Clinical anatomy of the paranasal sinuses and the external, middle, and inner ear . Clinical Anatomy of cranial nerves, including the location and signs of nerve injuries. The topographical and clinical anatomy of the back and upper limb, spinal nerves, the brachial plexus, bones, joints, muscles. Anatomy of the heart in terms of morphology, topography, and clinical significance, along with systemic, pulmonary, and fetal circulation. The autonomic nervous system is presented with its structure, divisions, and clinical importance. The topographical and clinical anatomy of the mediastinum, development of the peritoneum, and the anatomy of abdominal and pelvic structures. The course concludes with the topographical and clinical anatomy of the lower limb.

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

Classes-(Colloquium test)-['W1', 'K2', 'U1', 'K1', 'U2', 'K3', 'K4']-- true / false multiple choice tests include 20 questions, each question has 4 or 5 possible distractors / extractors. The condition of passing the test part is obtaining a minimum of 70% correct answers.
Classes-(Colloquium practical)-['K1', 'U1', 'W1', 'K2', 'U2', 'K3', 'K4']-- includes 20 anatomical points (so-called spotters), each of which is assessed on a scale of 0 to 2 points: incorrect answer - 0 points, correct answer in English - 2 point. For pointing out the wrong side - 0 points. For the lack of indication of the side with simultaneous correct identification of the structure - 1 point.
The condition for passing the practical part is to obtain a minimum of 70% of correct answers (28 out of 40 points possible to obtain). The student has 30 seconds to recognize a single anatomical structure and enter the correct name according to international anatomical terminology. The name of the structure is entered on the appropriately marked and prepared for this purpose answer card in the form of a traditional or electronic sheet.
Lecture-(Written exam)-['K1', 'U1', 'W1', 'K2', 'U2', 'K3', 'K4']-All colloquia are to be passed to take the exam.
Anatomy exam consists of two parts:
a. Theoretical part - true / false multiple choice tests covering 50 questions, each question has 5 possible answers. The condition of passing the test part is obtaining a minimum of 70% of correct answers - 350 out of 500 points maximum possible to get.

Passing the theoretical part of the exam allows you to take the practical part of the exam.
b. The practical part of the exam - includes 50 anatomical points (so-called pins) assessed each on a scale of 0 to 2 points: (incorrect answer - 0 points, correct answer in English - 2 points. For pointing out the wrong side - 0 points. For the lack of indication of the side with simultaneous correct identification of the structure - 1 point.) . The condition for passing the practical part is to obtain a minimum of 70% of correct answers - 70 out of 100 points that can be obtained.
To pass the Anatomy course, a positive evaluation in both the theoretical and practical parts is required.
If a student fails one part of the exam, they may take only that part in the retake session.

**Literature:**


1. ***The Brain Matters. CD English-Latin-Polish Atlas of Neuroanatomy***, Gielecki J, Żurada A, gajda G, Cybulski W, Górnicki, 2008, Strony: , Tom: (literatura uzupełniająca)

2. ***Gray's Anatomy Review***, loukas M, Stephen W. Carmichael, Elsevier, 2021, Strony: , Tom: (literatura uzupełniająca)

3. ***Netter's Atlas of Neuroscience***, David L. Felten, Anil Shetty, Elsevier, 2021, Strony: , Tom: (literatura uzupełniająca)

4. ***Clinical Anatomy Bones Joints and Ligaments with 3D phantogram atlas***, Gielecki J, Żurada A, MedRadEd, 2018, Strony: , Tom: (literatura podstawowa)

5. ***Gray's Anatomy for Students***, Richard Drake A. Wayne Vogl Adam Mitchell,, Elsevier, 2019, Strony: , Tom: (literatura podstawowa)

6. ***Atlas of Human Anatomy***, Frank H. Netter, Elsevier Urban Partner, 2022, Strony: , Tom: (literatura podstawowa)

7. ***Axial Skeleton Clinical anatomy of skull and spine***, Gielecki J, Żurada A, MedRadEd, 2016, Strony: , Tom: (literatura podstawowa)

8. ***Pocket Atlas of Sectional Anatomy Computed Tomography and Magnetic Resonance Imaging***, Torsten Bert Moeller Torsten Bert Moeller Emil Reif, Thieme, 2017, Strony: , Tom: (literatura podstawowa)

9. ***McMinn and Abrahams' Clinical Atlas of Human Anatomy 8th Edition***, Peter Abrahams, Johannes Boon, Jonathan Spratt, Marios Loukas, Albert VanSchoor, Elsevier, 2019, Strony: , Tom: (literatura podstawowa)

10. ***THIEME Atlas of Anatomy Series***, Michael Schuenke, Erik Schulte, Udo Schumacher, Lawrence M Ross, Edward D Lamperti, Markus, Thieme, 2021, Strony: , Tom: (literatura podstawowa)

UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYN

# Detailed description of ECTS credits awarded - part B

**48SJO-ANATO**
**2024**
**ECTS: 15.00**

## Anatomy

The number of ECTS credits awarded consists of:

1. Contact hours with the academic teacher:

| | |
|---|---|
| - participation in: | 142 h |
| - participation in: | 38 h |
| - consultation | 4 h |
| | Total: 184 h |

2. Independent work of a student:

| | |
|---|---|
| Preparation for exercises, self-education | 90.00 h |
| Preparation for credits | 51.00 h |
| Preparation for the exam | 50.00 h |
| | Total: 191.00 h |

Total (contact hours + independent work of a student): 375.00 h

1 ECTS credit = 25-30 h of an average student's work, number of ECTS,
ECTS Points = 375.00 h : 25 h/ECTS = **15.00** ECTS

Average: 15.00 ECTS

| | |
|---|---|
| - including the number of ECTS credits for contact hours with the direct participation of an academic teacher | 7.36 ECTS |
| - including the number of ECTS credits for hours of independent work of a student | 7.64 ECTS |