



## COURSE UNIT DESCRIPTION

Course unit title	Code
<b>Human Anatomy I</b> , academic year 2024/2025 (Medicine)	<b>ZMAN2115</b>

Lecturer(s)	Department(s)
<b>Coordinating: assoc. prof. Andrej Suchomlinov</b> <b>Other lecturers:</b> prof. Janina Tutkuvienė, assoc. prof. Arūnas Barkus, assoc. prof. Eglė Marija Jakimavičienė, assist. prof. Rūta Morkūnienė, lect. Dainora Bandzevičienė	Vilnius University, Medical Faculty, Institute of Biomedical Sciences, Department of Anatomy, Histology and Anthropology, Ciurlionio str. 21/27, Vilnius

Cycle	Level of the course unit	Type of the course unit
Cycle (integrated studies)		compulsory

Mode of delivery	Period of delivery	Language of instruction
Face-to-face lectures and seminars; practical classes in dissecting room, consultations, colloquia; individual studies	I (Autumn) semester	English

Prerequisites and corequisites	
<b>Prerequisites:</b> None	<b>Corequisites (if any):</b> None

Number of ECTS credits allocated to the course unit	Total student's workload	Contact hours	Individual study hours
<b>10</b>	<b>269</b>	<b>134</b>	<b>135</b>

Purpose of the course unit: programme competences to be developed		
<p>The purpose of the course unit is to prepare students for clinical medicine studies, provide important knowledge about the human body structure, create interest and teach techniques to help at the chosen medical specialty of an individual to go into the details of human body composition. By the end of the course students must know the structure of the locomotor system, internal organ systems, central nervous system and sense organs, circulatory system and peripheral nervous system, understand their individual, clinical, age-related and sex-related features, get a generalized, integrated understanding of the whole structure of the human body, use correct anatomical terminology and know the history of anatomy in Lithuania and the world.</p>		
Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
<b>General competences</b> – after successful completion of this semester the student will be able:		
To act with integrity and ethical obligations; to be able to think critically and	Lectures, practical classes, seminars,	Continuous assessment during practical classes in dissecting

self-critically, be creative, proactive, pay to the goal; to be able to communicate with others	consultations	room and consultations
To evaluate the limits of their powers and, if necessary, seek help; to solve problems and make decisions; to communicate and work as a team together with the teacher and peers	Lectures, practical classes, seminars, consultations	Continuous assessment during practical classes in dissecting room and consultations
To analyse and synthesize; to be able to apply knowledge in practice	Lectures, practical classes, seminars, consultations	Continuous assessment during practical classes in dissecting room, consultations and intermediate colloquia
<b>Subject-specific competences</b> – after successful completion of this semester the student will:		
Have good knowledge of normal anatomy of the human skeleton, the most common skeletal variations and sex- or age-related characteristics	Lectures, practical classes, seminars, consultations, individual studies	Intermediate first colloquium; a written exam at the end of the subject studies
Have good knowledge of normal anatomy of the human joints, basic knowledge of biomechanics	Lectures, practical classes, seminars, consultations, individual studies	Intermediate first colloquium; a written exam at the end of the subject studies
Have good knowledge of normal anatomy of the human muscle system, basic knowledge of biomechanics	Lectures, practical classes, seminars, consultations, individual studies	Intermediate first colloquium; a written exam at the end of the subject studies
Have good knowledge of normal anatomy of the human alimentary and respiratory systems, the most common variations, sex and age-related characteristics	Lectures, practical classes, seminars, consultations, individual studies	Intermediate second colloquium; a written exam at the end of the subject studies
Have good knowledge of normal anatomy of the human urogenital system, the most common variations, sex and age-related characteristics	Lectures, practical classes, seminars, consultations, individual studies	Intermediate second colloquium; a written exam at the end of the subject studies
Have good knowledge of normal anatomy of the human central nervous system	Lectures, practical classes, seminars, consultations, individual studies	Intermediate third colloquium; a written exam at the end of the subject studies
Have good knowledge of normal anatomy of the human sense organs	Lectures, practical classes, seminars, consultations, individual studies	Intermediate third colloquium; a written exam at the end of the subject studies
Be able to use correct anatomical terminology (in English and Latin), know the history of anatomical science	Lectures, practical classes, seminars, consultations, individual studies	Continuous assessment during practical classes and consultations; a written exam at the end of the subject studies

Content	Contact hours						Individual work: time and assignments		
	Lectures	Tutorials	Seminars	Workshops	Laboratory work	Internship	Contact hours, total	Individual work	Tasks for individual work
1. Introduction to human anatomy (anatomical science and its history; anatomical nomenclature; axes and planes of the human body; methods of investigation of a live human and a cadaver).	2						2	2	Studies of the literature, preparing for seminars and practical classes.
2. General osteology: structure and classification of bones. Ontogenesis of skeleton. Sex and age-related characteristics of the skeleton.	4		2				6	6	Studies of the literature, preparing for seminars and practical classes.
3. Structure of the axial skeleton (1): bones of the trunk: vertebrae and vertebral column, ribs, sternum, thorax.	2		2	4			8	8	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
4. Structure of the axial skeleton (2): skull: bones of neurocranium and face.	2		4	4			10	10	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
5. Bones of the upper and lower limbs (including shoulder and pelvic girdles).	2			4			6	6	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
6. General arthrology. Classification of joints. Fibrous, cartilaginous and bony joints. Structure, classification and biomechanics of the joints.	2		2				4	4	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
7. Joints of the trunk and the skull.	2		1	1			4	4	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
8. Joints of the upper and lower limbs and their biomechanics.	2		2	2			6	6	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
9. General myology: structure of the muscles, auxiliary apparatus of muscles, their classification, types, biomechanics and ontogenesis of the muscles.	2		2				4	4	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
10. Muscles of the head, neck, back, thorax, abdomen and lower limb, their structure, functions and topography.	4		5	5			14	14	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
11. Anatomy of alimentary	4		6	6			16	16	Studies of the literature,

system									preparing for seminars, practical classes and intermediate colloquia.
12. Anatomy of respiratory system	2		2	2			6	6	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
13. Anatomy of urinary system	2		2	2			6	6	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
14. Anatomy of reproductive system	4		2	2			8	8	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
15. Anatomy of central nervous system	10		8	10			28	29	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia, preparation of questions for the consultation.
16. Sense organs	2		2	2			6	6	Studies of the literature, preparing for seminars, practical classes and intermediate colloquia.
<b>In total:</b>	<b>48</b>	<b>0</b>	<b>42</b>	<b>44</b>	<b>0</b>	<b>0</b>	<b>134</b>	<b>135</b>	

Assessment strategy	Weight (%)	Assessment period	Assessment criteria
Continuous assessment during practical classes and seminars		During the semester	Attendance of practical classes and seminars is mandatory: missing classes due to justified causes must not exceed more than 20% of the scheduled time. Short quizzes and discussions during practical classes and seminars on the topics covered in the study plan (orally or in written form) may be organised. The purpose of quizzes is to check the students' preparation for the topic of a practical class / seminar.
Phased (intermediate) assessments – <b>three colloquia must be passed:</b>  1) Locomotor system  2) Splanchnology  3) CNS and sense organs	15	During the semester	All three colloquia are composed of a practical part and a test in the VU VMA platform. The practical part is held orally or in written form, it is evaluated using a 3-score system and makes 30% of final evaluation of the colloquium. During the practical part, student's abilities to answer the main questions of the topic, to use correct terminology and not to make basic mistakes are evaluated. The test in the VU VMA platform is evaluated using a 7-score system and makes 70% of final evaluation of the colloquium. Tests' grades are not rounded. Colloquium is passed, if final evaluation (practical part + test) is $\geq 5.0$ scores. If a colloquium, given in the study plan, is failed, a student is provided with an opportunity to retake it at an allotted time: a total of two re-takes of the same colloquium are organized during the semester and another re-take is organized during the debt week (at the beginning of the next semester).

Accumulative credit		Until the first day of the exam session	A student has to fulfil attendance requirements and pass all colloquia, given in the semester study plan.
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Author	Publishing year	Title	Issue of a periodical or volume of a publication	Publishing house or web link
<b>Required reading:</b>				
Friedrich Paulsen, Jens Waschke	2018, 2020, 2023	Sobotta Atlas of (Human) Anatomy	Vol. 1-3,	Sobotta Atlas of (Human) Anatomy
Standring S. (ed.)	2016	Gray's Anatomy: The anatomical basis of clinical practice	41st ed.	Churchill Livingstone
Standring S. (ed.)	2020, 2021	Gray's Anatomy: The anatomical basis of clinical practice	42nd ed.	Elsevier
Netter F.H.	2010-2022	Netter Atlas of Human Anatomy	5-8th ed.	Elsevier
<b>Links to the online books:</b>				
Standring S. (ed.)	2020	Gray's Anatomy for Students	4th ed.	<a href="https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20150000041">https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20150000041</a>
Standring S. (ed.)	2021	Gray's Anatomy	42nd. ed.	<a href="https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20170037291">https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20170037291</a>
Netter F.H.	2022	Netter Atlas of Human Anatomy	8th ed.	<a href="https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20180044345">https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20180044345</a>
<b>Recommended reading:</b>				
Kahle W., Leonhardt H., Platzer W., Frotscher M., Fritsch H., Kuehnel W.	2006, 2008, 2011, 2014, 2015, 2022	Color Atlas / Text of Human Anatomy.	Vol. 1-3	Thieme Medical Publishers Inc.
A.M. Gilroy, B.R. MacPherson (eds.)	2016	Atlas of anatomy	3rd ed.	Thieme Medical Publishers Inc.
A.M. Gilroy, B.R. MacPherson, J.C. Wikenheiser (eds.)	2020	Atlas of anatomy	4th ed.	Thieme Medical Publishers Inc.
<b>References to the online publications available at VU MF:</b> <a href="https://www.clinicalkey.com/#!/browse/books/%7B%22query%22:%22anatomy%22%7D">https://www.clinicalkey.com/#!/browse/books/%7B%22query%22:%22anatomy%22%7D</a>				
<b>Links to the recommended online books:</b>				
Netter F.H.	2022	Netter Atlas of Human Anatomy	8th ed.	<a href="https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20180044345">https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20180044345</a>
Friedrich Paulsen, Jens Waschke	2018	Sobotta Atlas of Anatomy	Vol. 1, 16th ed.	<a href="https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20170020037">https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20170020037</a>

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Friedrich Paulsen, Jens Waschke	2018	Sobotta Atlas of Anatomy	Vol. 2, 16th ed.	<a href="https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20170020062">https://www.clinicalkey.com/ #!/browse/book/3-s2.0- C20170020062</a>
Friedrich Paulsen, Jens Waschke	2018	Sobotta Atlas of Anatomy	Vol. 3, 16th ed.	<a href="https://www.clinicalkey.com/#!/browse/book/3-s2.0-C2018001779X">https://www.clinicalkey.com/ #!/browse/book/3-s2.0- C2018001779X</a>