



COURSE UNIT DESCRIPTION

Course unit (module) title	Code
Human Histology II , academic year 2024/2025 (Medicine)	ZMHI2115

Lecturer(s)	Core academic unit(s)
Coordinating: assoc. prof. Rūta Vosyliūtė Other: prof. Renata Šimkūnaitė-Rizgelienė, lect. Rūta Karneckė, lect. Viktorija Gurskytė	Vilnius University, Faculty of Medicine Institute of Biomedical Sciences, Department of Anatomy, Histology and Anthropology, Ciurlionio str. 21/27, Vilnius

Study cycle	Type of the course unit
Cycle (integrated studies)	Compulsory

Mode of delivery	Semester or period when it is delivered	Language of instruction
Mixed method studies: lectures online, seminars and workshops (practices or classes) face-to-face, and self-studies (individual studies)	Year I, semester II	Lithuanian and English

Requisites	
Prerequisites: Credit of the first semester	Corequisites (if relevant): None

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
5	133	66	67

Purpose of the course unit		
To provide knowledge based on modern research methods about the microscopic structure, functions and origin of human body tissues and organs. To develop and promote the knowledge and understanding of the microscopic structure of tissues and organs of the human body, ensure that students understand the material so that they may systemise, analyse and proceed to the clinical studies. After completion of the course, students are required to know the microscopic structure of tissues and organs of the human body, sources of origin, the main functions of structural elements, be able to define the relationship between structure and functions, recognize, describe and compare histological slides of tissues and organs.		
Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
General competences – after successful completion of this semester the student will be able: To act fairly and according to ethical obligations, be emphatic, think critically and self-critically, be creative, take the initiative, communicate with others	Theoretical material during the lecture, skills in using light microscope during practice, discussions and analysis during seminar, self-study	Continuous assessment during practice and seminar
To make an assessment within the scope of one's competence and, if necessary, ask for help, act in new situations and adapt to them, act independently, solve problems, make judgements, work with other students, organise and plan	Theoretical material during the lecture, skills in using light microscope during practice, discussions and analysis during seminar, self-study	Continuous assessment during practice and seminar
To analyse and synthesize; to be able to apply knowledge in practice	Theoretical material during the lecture, skills in using light microscope during practice, discussions and analysis during seminar, self-study	Continuous assessment during practice and seminar
Subject-specific competences – after successful completion of this semester the student will:	Theoretical material during the lecture. Study of histological	Continuous assessment during practice and seminar

Know microscopic structure, origin and functions of sense organs, be able to define the relationship between structure and function, recognize and describe the slides of different organs of the sensory system	slides, schemes and posters during practice, discussions and analysis during seminar, self-study	
Know microscopic structure, origin and functions of integumentary system, be able to define the relationship between structure and function, recognize and describe the slides of different structures of the skin	Theoretical material during the lecture. Study of histological slides, schemes and posters during practice, discussions and analysis during seminars, self-study	Continuous assessment during practice and seminar
Know microscopic structure, origin and functions of respiratory system, be able to define the relationship between structure and function, recognize and describe the slides of different organs of respiratory system	Theoretical material during the lecture. Study of histological slides, schemes and posters during practice, discussions and analysis during seminars, self-study	Continuous assessment during practice and seminar. At the end of Sense Organs, Skin and Respiratory System themes – a colloquium
Know microscopic structure, origin and functions of gastrointestinal system, be able to define the relationship between structure and function, recognize and describe the slides of different organs of gastrointestinal system	Theoretical material during the lectures. Study of histological slides, schemes and posters during practice, discussions and analysis during seminars, self-study	Continuous assessment during practice and seminars. At the end of gastrointestinal system theme – a colloquium
Know microscopic structure, origin and functions of urogenital (urinary, male reproductive and female reproductive) system, be able to define the relationship between structure and function, recognize and describe the slides of different organs of urogenital system	Theoretical material during the lectures. Study of histological slides, schemes and posters during practice, discussions and analysis during seminars, self-study	Continuous assessment during practice and seminar. At the end of urogenital system themes – a colloquium
Know microscopic structure, origin and functions of cardiovascular system, be able to define the relationship between structure and function, recognize and describe the slides of different organs of cardiovascular system	Theoretical material during the lecture. Study of histological slides, schemes and posters during practice, discussions and analysis during seminars, self-study	Continuous assessment during practice and seminar
Know microscopic structure, origin and functions of immune system, be able to define the relationship between structure and function, recognize and describe slides of different immune organs	Theoretical material during the lecture. Study of histological slides, schemes and posters during practice, discussions and analysis during seminars, self-study	Continuous assessment during practice and seminar
Know microscopic structure, origin and functions of endocrine system, be able to define the relationship between structure and function, recognize and describe the slides of different organs of endocrine system	Theoretical material during the lecture. Study of histological slides, schemes and posters during practice, discussions and analysis during seminars, self-study	Continuous assessment during practice and seminar. At the end of cardiovascular, immune and endocrine systems themes – a colloquium
Will be able to recognize, describe and compare the slides of different tissues and organs	Study of histological slides, schemes and posters during practice, discussions and analysis during seminars, self-study	Assessment during the practical colloquium at the end of the semester

Content	Contact hours							Individual work: time and assignments	
	Lectures	Tutorials	Seminars	Workshops	Laboratory work	Internship	Contact hours, total	Individual studies	Tasks for individual work
1. Sense organs	2		2	4			8	7	Studies of the literature, preparing for seminar and practice
2. Integumentary system	2		1	2			5	5	Studies of the literature, preparing for seminar and practice
3. Respiratory system	2		2	1			5	5	Studies of the literature, preparing for seminar and practice. Repeating of the studied material about sense organs, skin and respiratory system, and preparing for the colloquium

4. Oral organs	2		1	2			5	5	Studies of the literature, preparing for seminar and practice
5. Gastrointestinal tract	2		2	1			5	5	Studies of the literature, preparing for seminar and practice
6. Digestive glands	2		1	2			5	5	Studies of the literature, preparing for seminar and practice. Repeating of the studied material about digestive system, and preparing for the colloquium
7. Urinary system	2		2	1			5	5	Studies of the literature, preparing for seminar and practice
8. Male reproductive system	2		1	2			5	5	Studies of the literature, preparing for seminar and practice
9. Female reproductive system	2		2	1			5	5	Studies of the literature, preparing for seminar and practice. Repeating of the studied material about urogenital (urinary, male and female reproductive) system, and preparing for the colloquium
10. Cardiovascular system	2		2	1			5	5	Studies of the literature, preparing for seminar and practice
11. Immune organs	2		1	2			5	5	Studies of the literature, preparing for seminar and practice.
12. Endocrine system	2		2	1			5	5	Studies of the literature, preparing for seminar and practice. Repeating of the material studied about cardiovascular, immune and endocrine system and preparing for the colloquium
13. Differential diagnostics of histological slides		1	2	1			4	5	Studies of the literature, preparing for seminar and practice. Repeating of all the slides studies during the I and II semesters. Preparation of the question for the consultation.
Total:	24		21	21			66	67	

Assessment strategy	Weight (%)	Assessment period	Assessment criteria
Continuous assessment during practice and seminars		During semester	During practices, student must have tools for writing and drawing. Drawing tools can be replaced by smart devices: a tablet or laptop. Lecturer indicates which histological slides (and by what magnification their images are visible) must be analysed and drawn on paper or on a smart device. Drawing other histological slides is optional, but recommended. If the images of the histological slides are not drawn on paper, student must use a smart device during the practice and perform markings of histological structures in the photomicrographs selected by the lecturer. All histological slides of tissues and organs and some photomicrographs are displayed on a smart board, and discussed together with the lecturer. Drawn or marked in photomicrographs, histological structures must be found by the student in his own histological slide. At the end of the practice (or during), the lecturer checks the drawings of students or selected photomicrographs with markings of histological structures and provides feedback. Students who have not completed the tasks of the practice, i.e. have not drawn the images visible in the histological slides (or incorrectly drawn) or have not marked the histological structures (or incorrectly

			<p>marked) in the photomicrographs selected by the lecturer, must repeat the tasks independently and show the correctly performed work during the next practice. Only those students who perform all the tasks on the relevant topics are admitted to the colloquium.</p> <p>During the seminars, a survey from independently studied topics is carried out, independently prepared tasks are presented, reading material is referred, and problem issues are jointly discussed.</p> <p>Attendance of practice and seminars is mandatory. With a justifiable reason, no more than 20 % of practice or seminars can be missed.</p>
<p>Formative assessment -</p> <p>colloquia:</p> <ol style="list-style-type: none"> 1. Sense organs, Integument and Respiratory Systems; 2. Gastrointestinal System; 3. Urogenital System; 4. Cardiovascular, Immune and Endocrine Systems. 	10%	During semester	<p>The colloquia are organized in the Moodle system (closed-ended or open-ended questions with schemes, drawings, figures and histological slides). Assessment is in 10 points system (points are not rounded). 5 or more points should be collected in order to pass a colloquium.</p> <p>Failed colloquium could be retaken, two retakes will be organized: the first during the semester and the second – before the Final Exam.</p> <p>An average grade of all colloquia (of the 1st and the 2nd semester) makes up 20 % of the final evaluation.</p>
<p>Practical colloquium (differential diagnostics of histological slides)</p>	10%	End of semester	<p>Student must fulfil attendance requirements and pass the theoretical colloquia of the 2nd semester.</p> <p>The colloquium is organized in the Moodle system (students must recognize tissues and organs in 30 microphotographs and name all the structural components indicated by the arrows). The sum of the points (0-10) makes the assessment of the practical colloquium. Assessment points are not rounded. More than 5 points should be collected in order to pass this colloquium. Failed colloquium could be retaken.</p>
Final Exam	70%	During session	<p>Student must have the credits of the 1st semester, fulfil attendance requirements and pass the theoretical colloquia and practical colloquium of the 2nd semester.</p> <p>Examination is organized in the Moodle system (closed-ended or open-ended questions with schemes and pictures). Assessment is in 10 points system (points are not rounded). Assessment of the examination makes up 70 % of the final assessment.</p> <p>The final assessment consists of the following:</p> <ul style="list-style-type: none"> - 70% - examination; - 20% - average of theoretical colloquia (passed during two semesters); - 10% - practical colloquium. <p>The final assessment according to the scheme:</p> <p>10 – if ≥ 90 % are collected, 9 – if ≥ 83 % are collected, 8 – if ≥ 75 % are collected, 7 – if ≥ 65 % are collected, 6 – if ≥ 55 % are collected, 5 – if ≥ 50 % are collected, 4 – if < 50 % are collected (failed).</p>

Author	Publishing year	Title	Issue of a periodical or volume of a publication	Publishing house or web link
Required reading:				
Mescher A.L.	2021	Junqueira's Basic Histology: Text and Atlas	Vol. 16	https://accessmedicine.mhmedical.com/book.aspx?bookid=3047
Friedrich Paulsen,	2018,	Sobotta Atlas of	Vol. 1-3,	Sobotta Atlas of (Human)

Jens Waschke	2020, 2023	(Human) Anatomy		Anatomy
Recommended reading:				
Gartner L.P.	2021	Textbook of Histology	Vol. 5	Elsevier https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20140021375
Lowe J.S., Anderson P.G., Anderson S.I.	2020	Stevens & Lowe's Human Histology	Vol. 5	Elsevier https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20170016105?indexOverride=GLOBAL
Balko J., Tonar Z., Varga I et al.	2018	Memorix Histology	Vol. 1	Stanislav Juhanak – TRITON, 2018
Sadler T.W.	2018	Langman's Medical Embryology	Vol. 14	Lippincott Williams & Wilkins