Medical University of Warsaw
Faculty of Medicine – English Division
61 Żwirki i Wigury Street
02-091 Warsaw, Poland

http: // www.wum.edu.pl/

1st YEAR CURRICULUM

6-year program

Academic year: 2022/2023

AUTHORITIES OF MEDICAL UNIVERSITY OF WARSAW – TERM 2020-2024

Rector – Professor Zbigniew Gaciong, MD, PhD

Vice Rector for Student Affairs and Education – Professor Marek Kuch, MD, PhD

Vice Rector for Science and Technology Transfer – Professor Piotr Pruszczyk, MD, PhD

Vice Rector for Human Resources – Professor Agnieszka Cudnoch-Jedrzejewska, MD, PhD

Vice Rector for Clinical Affairs and Investments – Professor Wojciech Lisik, MD, PhD

Vice Rector for International Relations, Development and Promotion – Professor Paweł Włodarski, MD, PhD

FACULTY AUTHORITIES OF MEDICAL UNIVERSITY OF WARSAW – TERM: 2020-2024

Faculty of Medicine – Professor Rafał Krenke MD, PhD

English Division – Faculty of Medicine – Assoc. Prof. Jacek Sieńko, MD, PhD.

DEAN'S OFFICE

Head of the Dean's Office – Krystyna Jarząb, MA

Student Administration Officer (1st, 2nd and 3rd -Year) – Aleksandra Chilecka

Student Administration Officer (4th, 5th, 6th -Year) – Maria Mierzyńska, MA

STUDENT GOVERNMENT REPRESENTATIVES:

President – Carolyn Szwed

Vice President – Mike Lee

Secretary – Michail Koutentakis

Student Rights – Huda Shah

Social Media – Danae Kim

Event Coordinator – Catherine Gartside, Rakesh Roshan

www: *https://edsgwum.wixsite.com/edsg*

CLASS REPRESENTATIVE:

TBA – 1 year

SCHEDULE – ACADEMIC YEAR 2022/2023

6-year program

WINTER SEMESTER – 01.10.2022 – 19.02.2023

STUDENT'S ACADEMIC CLASSES:	01.10.2022 – 18.12.2022
	02.01.2023 – 29.01.2023
WINTER HOLIDAYS:	19.12.2022 – 01.01.2023
EXAM SESSION:	**30.01.2023 – 05.02.2023**
DAYS OFF BETWEEN SEMESTER:	06.02.2023 – 12.02.2023
RETAKE EXAM SESSION:	13.02.2023 – 19.02.2023

SUMMER SEMESTER – 20.02.2023 – 30.09.2023

STUDENT'S ACADEMIC CLASSES:	20.02.2023 – 30.04.2023
	08.05.2023 – 11.06.2023
SPRING HOLIDAYS:	01.05.2023 – 07.05.2023
DAYS OFF BEFORE EXAM SESSION:	12.06.2023 – 18.06.2023
EXAM SESSION:	**19.06.2023 – 09.07.2023**
SUMMER HOLIDAYS:	10.07.2023 – 03.09.2023
RETAKE EXAM SESSION:	04.09.2023 – 17.09.2023
SUMMER HOLIDAYS:	18.09.2023 – 30.09.2023

Curriculum of 1st year of 6-year 2022/2023 ED program and the list of contents

1st year

page	subject	form of credit	semester	Total no of hours	including				ECTS
					lecture	seminar	class	practical	
5	Anatomy	exam	1&2	254	40	54	160		24
24	Histology with Embryology	exam	1&2	100	10	30	60		10
32	Occupational Safety and Health at Work/Study	credit	1	4	4				1
37	Biophysics	credit	2	34	4	15	15		3
43	Statistics and Medical Informatics	credit	1&2	34	4	6	24		2
49	History of Medicine	credit	2	30		30			1
54	Latin in Medicine	credit	1&2	20			20		1
60	Basic Polish	credit	1&2	70			70		5
66	Introduction to Molecular Biology	credit	1	20		5	15		2
71	Propedeutics of Addiction Medicine	credit	2	15		5	10		1
77	Library Training	credit	1&2	2		2			0
82	Sport training	credit	1	60			60		0
86	First Aid with the Elements of Nursing	credit	2	45		9	36		3
92	Vocational training	credit	2	120				120	4
-	Optional course	credit	1&2	60		60			4
				868	62	216	470	120	61

Clinical Anatomy

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher educatio from 26th of July 2019)*	Medical Science
Study Profile *(general academic / practical)*	general academic
Level of studies *(1st level /2nd level/ uniform MSc)*	uniform MSc
Form of studies	Full time studies
Type of module / course *(obligatory / non-compulsory)*	obligatory
Form of verification of learning outcomes *(exam / completion)*	**exam**
Educational Unit / Educational Units *(and address / addresses of unit / units)*	DEPARTMENT OF DESCRIPTIVE AND CLINICAL ANATOMY CENTER OF BIOSTRUCTURE RESEARCH Warszawa, ul. Chałubińskiego 5, tel./fax 629-52-83 e-mail : anatomy@wum.edu.pl

Head of Educational Unit / Heads of Educational Units	**Prof. Bogdan Ciszek, MD, PhD**
Course coordinator *(title, First Name, Last Name, contact)*	**Tymon Skadorwa, MD, PhD** DEPARTMENT OF DESCRIPTIVE AND CLINICAL ANATOMY CENTER OF BIOSTRUCTURE RESEARCH Warszawa, ul. Chałubińskiego 5, tel./fax 629-52-83 e-mail : tskadorwa@wum.edu.pl
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	**Tymon Skadorwa, MD, PhD** DEPARTMENT OF DESCRIPTIVE AND CLINICAL ANATOMY CENTER OF BIOSTRUCTURE RESEARCH Warszawa, ul. Chałubińskiego 5, tel./fax 629-52-83 e-mail : tskadorwa@wum.edu.pl
Teachers	Dr. Tymon Skadorwa, MD, PhD Dr. Maciej Ciołkowski, MD, PhD Dr. Robert Franczyk, MD PhD Dr. Arkadiusz Kowalczyk, MD Mr. Michał Grzegorczyk, PhD Mr. Krzysztof Dąbrowski, PhD Dr. Olga Wierzbieniec, MD Dr. Kamila Sośnicka, MD

2. BASIC INFORMATION

Year and semester of studies	Year 1, Semesters 1 and 2 (winter and summer)	**Number of ECTS credits**	24

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)	40	1,6
Seminar (S)	54	2
Classes (C)	160	6,4
e-learning (e-L)	0	
Practical classes (PC)		
Work placement (WP)	0	
Unassisted student's work		
Preparation for classes and completions	435	14

3.	**COURSE OBJECTIVES**
O1	To acquire the knowledge about the construction and usage of anatomical terminology according to the internationally accepted "Terminologia Anatomica".
O2	To be able to name and describe all the anatomical structures dissected during the laboratory classes, understand their development as well as topographical relations.
O3	To understand the relationship between the structure and function of tissues, organs and systems of the human body.
O4	To be able to recognize the anatomical structures in images acquired using various imaging modalities (computed tomography, magnetic resonance imaging, ultrasound imaging, endoscopy).
O5	To understand the principles of biomechanics (movements of joints, function of muscles).
O6	To describe anatomical background of central and peripheral nervous system damage.
O7	To know the spatial, topographical relationships between organs.
O8	To know the surface projections of the organs (e.g. projection of the cardiac valves on the surface of the chest)
O9	To differentiate the normal conditions from pathology basing on post mortem and in vivo methods.

4. **STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING** *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*

Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
G.K1	Appropriate English anatomical terminology
G.K2	Structure of the human body in topographical, systematic and functional approach
G.K3	Topography of the organs in the living subject with the emphasis on their surface projections
Skills– Graduate* is able to:	
G.S1	Explain the anatomical background of the physical examination
G.S2	Correlate the relationships between the anatomical structures basing on in vivo diagnostic studies, especially medical imaging (X-ray, contrast-enhanced studies, computed tomography, magnetic resonance imaging, sonography)

G.S3	Use anatomical terminology in spoken and in written language

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*

Number of effect of learning	Effects of learning i time
Knowledge – Graduate knows and understands:	
K1	Palpation sites of arterial pulse, nerves, internal organs, muscles, bones and joints
K2	Principles of anatomical research methodology
Skills– Graduate is able to:	
S1	Understand and use images of anatomical structures obtained from anatomical dissections, medical imaging modalities, as well as medical and anatomical iconography
S2	Analyse biomechanics of the joints
S3	Recognize pulse palpation sites, palpation sites of major nerve trunks and typical osseous points
S4	Recognize basic anatomical structures essential for the medical practitioner in specimens and models (see basic points list) in at least 90%
S5	Recognize the remaining anatomical structures in specimens, models, medical images (sonography, X-ray, computed tomography, magnetic resonance imaging) in at least 65%
S6	Design a simple scientific research study in anatomy
Social Competencies – Graduate is ready for:	
SC1	Show respect for the human body (corpse), social groups, religious feelings for the sake of their welfare
SC2	Further self-education with medical confidentiality

6. CLASSES

Form of class	Class contents	Effects of Learning
Lectures 1-20	**WINTER SEMESTER**	
L1 - Lecture 1	Introduction to the gross and clinical anatomy.	G.K1, G.K2, G.K3
L2 - Lecture 2	Organization of the skeletal system.	G.K1, G.K2, G.K3
L3 - Lecture 3	Classification of bones, classification of joints.	G.K1, G.K2, G.K3
L4 - Lecture 4	General topography of the skull.	G.K1, G.K2, G.K3
L5 - Lecture 5	Developmental anatomy of the skull.	G.K1, G.K2, G.K3
L6 - Lecture 6	Surgical anatomy of the skull.	G.K1, G.K2, G.K3

L7 - Lecture 7	Central nervous system: introduction, development and its implications.	G.K1, G.K2, G.K3
L8 - Lecture 8	Cerebral cortex, thalamic nuclei and their connections.	G.K1, G.K2, G.K3
L9 - Lecture 9	Circulation of the cerebrospinal fluid and the ventricular system.	G.K1, G.K2, G.K3
L10 - Lecture 10	Functional anatomy of the brainstem, cerebellum and the cranial nerves.	G.K1, G.K2, G.K3
L11 - Lecture 11	Sensory pathways and centers in the central nervous system. Somatic sensation.	G.K1, G.K2, G.K3
L12 - Lecture 12	Sensory pathways and centers in the central nervous system. Special senses.	G.K1, G.K2, G.K3
L13 - Lecture 13	Motor pathways and centers in the central nervous system.	G.K1, G.K2, G.K3
L14 - Lecture 14	Functional assessment of CNS.	G.K1, G.K2, G.K3
L15 - Lecture 15	General topography of the neck. Triangles and muscles of the neck. Cervical fascia. Cervical plexus.	G.K1, G.K2, G.K3
L16 - Lecture 16	Surgical anatomy of the neck.	G.K1, G.K2, G.K3
L17 - Lecture 17	Anatomical aspects of ENT medicine.	G.K1, G.K2, G.K3
L18 - Lecture 18	Facial nerve. Trigeminal nerve – clinical syndromes of these nerves.	G.K1, G.K2, G.K3
L19 - Lecture 19	Clinical anatomy of the visual system.	G.K1, G.K2, G.K3
L20 - Lecture 20	Clinical anatomy of the organ of hearing.	G.K1, G.K2, G.K3
Seminars 1-23	**WINTER SEMESTER**	
S1 – Seminar 1	Axial skeleton, Vertebrae, Ribs.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S2 – Seminar 2	Upper extremity.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S3 – Seminar 3	Lower extremity.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S4 – Seminar 4	Bones of the skull 1.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S5 – Seminar 5	Bones of the skull 2.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S6 – Seminar 6	Joints, fossae, canals and spaces of the skull.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S7 – Seminar 7	Radiology in osteology. Repetition.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S8 – Seminar 8	Introduction. Spinal cord. Spinal nerve.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S9 – Seminar 9	Cerebral hemisphere.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S10 – Seminar 10	Diencephalon. Lateral and third ventricles.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S11 – Seminar 11	Brainstem, cerebellum. Fourth ventricle. Roots of cranial nerves.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S12 – Seminar 12	Cross-sections of the CNS.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S13 – Seminar 13	Vascular anatomy of the CNS.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S14 – Seminar 14	Identification of elements of the CNS pathways.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S15 – Seminar 15	Radiologic anatomy of the CNS.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S16 – Seminar 16	Skin. Neck: triangles, fascias, veins. Cervical plexus.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S17 – Seminar 17	Neck: muscles. Thyroid gland, parathyroids. CCA.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3

S18 – Seminar 18	Larynx, trachea. ECA. Vagus, accessory nerve. Sympathetic trunk.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S19 – Seminar 19	Muscles of face. Facial nerve and artery. Parotid gland.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S20 – Seminar 20	Oral cavity, teeth, gums, tongue, palate. Hypoglossal nerve.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S21 – Seminar 21	Infratemporal fossa. Nasal cavity. Trigeminal nerve.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S22 – Seminar 22	Orbit, eye. Dura mater. Dural sinuses.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S23 – Seminar 23	Ear. Hearing organ. Temporal bone. Radiologic anatomy of Head and Neck.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
Practical Classes 1-24	**WINTER SEMESTER**	
PC1 – Laboratory class 1	Axial skeleton, Vertebrae, Ribs.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC2 – Laboratory class 2	Upper extremity.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC3 – Laboratory class 3	Lower extremity.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC4 – Laboratory class 4	Bones of the skull 1.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC5 – Laboratory class 5	Bones of the skull 2.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC6 – Laboratory class 6	Joints, fossae, canals and spaces of the skull.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC7 – Laboratory class 7	Radiology in osteology. Repetition.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC8 – Laboratory class 8	Introduction. Spinal cord. Spinal nerve.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC9 – Laboratory class 9	Cerebral hemisphere.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC10 – Laboratory class 10	Diencephalon. Lateral and third ventricles.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC11– Laboratory class 11	Brainstem, cerebellum. Fourth ventricle. Roots of cranial nerves.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC12 – Laboratory class 12	Cross-sections of the CNS.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC13 – Laboratory class 13	Vascular anatomy of the CNS.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC14 – Laboratory class 14	Identification of elements of the CNS pathways.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC15 – Laboratory class 15	Radiologic anatomy of the CNS. Repetition.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC16 – Laboratory class 16	Skin. Neck: triangles, fascias, veins. Cervical plexus.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC17 – Laboratory class 17	Neck: muscles. Thyroid gland, parathyroids. CCA.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC18 – Laboratory class 18	Larynx, trachea. ECA. Vagus, accessory nerve. Sympathetic trunk.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC19 – Laboratory class 19	Muscles of face. Facial nerve and artery. Parotid gland.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC20 – Laboratory class 20	Oral cavity, teeth, gums, tongue, palate. Hypoglossal nerve.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC21 – Laboratory class 21	Infratemporal fossa. Nasal cavity. Trigeminal nerve.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC22 – Laboratory class 22	Orbit, eye. Dura mater. Dural sinuses.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC23 – Laboratory class 23	Ear. Hearing organ. Temporal bone. Radiologic anatomy of H&N. Repetition.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC24 – Laboratory class 24	Repetition. 1st Intermediate Credit	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
Lectures 21-40	**SUMMER SEMESTER**	
L21 - Lecture 21	Clinical anatomy of thoracic wall and the breast.	G.K1, G.K2, G.K3
L22 - Lecture 22	Anatomy of mediastinum and its clinical applications.	G.K1, G.K2, G.K3

L23 - Lecture 23	Applied anatomy of the respiratory system.	G.K1, G.K2, G.K3
L24 - Lecture 24	Functional anatomy of the heart.	G.K1, G.K2, G.K3
L25 - Lecture 25	Developmental anatomy of the heart and great vessels.	G.K1, G.K2, G.K3
L26 - Lecture 26	Surgical anatomy of the abdominal wall.	G.K1, G.K2, G.K3
L27 - Lecture 27	Clinical and developmental anatomy of the peritoneal cavity.	G.K1, G.K2, G.K3
L28 - Lecture 28	Structure and topography of the alimentary tract 1.	G.K1, G.K2, G.K3
L29 - Lecture 29	Structure and topography of the alimentary tract 2.	G.K1, G.K2, G.K3
L30 - Lecture 30	Anatomical basis of abdominal surgery.	G.K1, G.K2, G.K3
L31 - Lecture 31	Applied anatomy of the retroperitoneal space.	G.K1, G.K2, G.K3
L32 - Lecture 32	Male reproductive system.	G.K1, G.K2, G.K3
L33 - Lecture 33	Female reproductive system.	G.K1, G.K2, G.K3
L34 - Lecture 34	Clinical anatomy of pregnancy and labour.	G.K1, G.K2, G.K3
L35 - Lecture 35	Clinical anatomy in urology.	G.K1, G.K2, G.K3
L36 - Lecture 36	Topographical and practical anatomy of the back.	G.K1, G.K2, G.K3
L37 - Lecture 37	Clinical anatomy of the shoulder.	G.K1, G.K2, G.K3
L38 - Lecture 38	The hand - practical and topographical anatomy.	G.K1, G.K2, G.K3
L39 - Lecture 39	Clinical anatomy of the pelvic girdle.	G.K1, G.K2, G.K3
L40 - Lecture 40	Biomechanics of the foot and its clinical implications.	G.K1, G.K2, G.K3
Seminars 24-47	**SUMMER SEMESTER**	
S24 – Seminar 24	Thoracic wall. Breast.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S25 – Seminar 25	Thoracic cavity.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S26 – Seminar 26	Respiratory system.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S27 – Seminar 27	Heart.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S28 – Seminar 28	Posterior mediastinum.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S29 – Seminar 29	Radiologic anatomy of the thorax.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S30 – Seminar 30	Abdominal wall.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S31 – Seminar 31	Peritoneum.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S32 – Seminar 32	Stomach, celiac trunk, duodenum. Superior mesenteric artery.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S33 – Seminar 33	Jejunum, ileum. Large intestine. Inferior mesenteric artery.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S34 – Seminar 34	Liver, spleen, pancreas. Portal vein.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S35 – Seminar 35	Urinary system. Retroperitoneal space.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S36 – Seminar 36	Male genital organs.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S37 – Seminar 37	Female genital organs.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S38 – Seminar 38	Pelvic floor. Perineum.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S39 – Seminar 39	Radiologic anatomy of abdomen and pelvis.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3

S40 – Seminar 40	Back.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S41 – Seminar 41	Shoulder and arm.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S42 – Seminar 42	Forearm.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S43 – Seminar 43	Hand.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S44 – Seminar 44	Gluteal region. Thigh.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S45 – Seminar 45	Leg.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S46 – Seminar 46	Foot.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
S47 – Seminar 47	Radiologic anatomy of the limbs.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
Practical Classes 25-52	**SUMMER SEMESTER**	
PC25 – Laboratory class 25	Thoracic wall. Breast.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC26 – Laboratory class 26	Thoracic cavity.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC27 – Laboratory class 27	Respiratory system.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC28 – Laboratory class 28	Heart.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC29 – Laboratory class 29	Posterior mediastinum.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC30 – Laboratory class 30	Radiology of the thorax.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC31 – Laboratory class 31	Abdominal wall.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC32 – Laboratory class 32	Peritoneum.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC33 – Laboratory class 33	Stomach, celiac trunk, duodenum. Superior mesenteric artery.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC34 – Laboratory class 34	Jejunum, ileum. Large intestine. Inferior mesenteric artery.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC35– Laboratory class 35	Liver, spleen, pancreas. Portal vein.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC36 – Laboratory class 36	Urinary system. Retroperitoneal space.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC37 – Laboratory class 37	Male genital organs.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC38 – Laboratory class 38	Female genital organs.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC39 – Laboratory class 39	Pelvic floor. Perineum.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC40 – Laboratory class 40	Radiology of abdomen and pelvis.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC41 – Laboratory class 41	Back.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC42 – Laboratory class 42	Shoulder and arm.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC43 – Laboratory class 43	Forearm.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC44 – Laboratory class 44	Hand.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC45 – Laboratory class 45	Gluteal region. Thigh.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC46 – Laboratory class 46	Leg.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC47 – Laboratory class 47	Foot.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC48 – Laboratory class 48	Radiology of the limbs.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC49 – Laboratory class 49	Repetition. 2nd Intermediate Credit.	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC50 – Laboratory class 50	Admission Test	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3

PC51 – Laboratory class 51	2nd Admission Test	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3
PC52 – Laboratory class 52	Repetition	G.K1, G.K2, G.K3, G.S1, G.S2, G.S3

7. LITERATURE

Obligatory

1. Moore KL, Dalley AF, Agur AMR. Clinically oriented anatomy. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins
   The basic textbook to prepare for the laboratory classes and theoretical tests. Multiple choice questions are written according to this book and lectures. Please read clinical blue boxes as well – they will expand your understanding of clinical importance of anatomical structures you learn about. Some of clinical issues may be also included in the tests.
2. Snell RS. Clinical neuroanatomy. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins; 2010
   The basic textbook of clinical neuroanatomy. We recommend it for the CNS section.
3. Fitzgerald MJT, Gruener G, Mtui E. Clinical Neuroanatomy and Neuroscience. Saunders; 2012
   A comprehensive textbook of clinical anatomy of the central nervous system. We recommend it for the CNS section.
4. Dauber W, Feneis H. Pocket atlas of human anatomy : Founded by Heinz Feneis. Stuttgart ; New York: Thieme
   An illustrated dictionary of anatomical nomenclature based on Terminologia Anatomica, useful for practical classes, repetitions and practical tests.
5. FIPAT. Terminologia Anatomica. International Anatomical Terminology. Stuttgart, New York: Thieme; 2011
   The official anatomical terminology. The reference book in case of any discrepancies regarding the terminology used by various authors.

Supplementary

1. Gilroy AM, MacPherson BR, Ross LM, Schünke M, Schulte E, Schumacher U. Atlas of anatomy. New York: Thieme; 2012
   A good and popular anatomical atlas. Our recommendation.
2. Sobotta – Atlas of Human Anatomy or Atlas of Anatomy
   There are numerous editions of one of the most popular anatomical atlases worldwide. Editors and publishers are different, but illustrations are the same.
3. Rohen JW, Yokochi C, Lütjen-Drecoll E. Color atlas of anatomy: A photographic study of the human body. Baltimore: Lippincott Williams & Wilkins; 2011
   An atlas with photographs of real anatomical specimens.

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
G.K1, G.K2, G.K3 G.S1, G.S2, G.S3	**In terms of knowledge:** Theoretical Exam (single best answer test), Quizzes (multiple choice quiz), answer completion tests, signing structures in illustrations. **In terms of skills:** Practical Exam ("Pin test") -written naming of selected structures with a standardized assessment method described in detail with examples on the website of the Department. **In terms os social competences:** prolonged observation by a teacher, clinical problem solving in groups.	**Passing all the Quizzes, obtaining a point threshold for Theoretical and Practical Exams.** The subject ends with a theoretical test exam and a practical exam with a grade. Passing threshold: ≥65% of correct answers in both parts. The verification covers all categories of areas (knowledge, skills and social competences).

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

There is the active students' scientific club at the Department of Descriptive and Clinical Anatomy. The membership is granted basing on the passed examination in Clinical Anatomy and one semester internship as the teaching assistant support in the dissection laboratory. The students can join one of the following sections: Neuroanatomy, Clinical Anatomy of the Fetus and Cardiovascular System, Clinical Anatomy of the Locomotor System and Surgery.

INTERNAL REGULATIONS OF THE DEPARTMENT OF DESCRIPTIVE AND CLINICAL ANATOMY IN ACADEMIC YEAR 2022/2023

1. In order to complete a semester, a year and to pass Final Anatomy Examination student should participate actively in lectures, seminars and practical classes. Participation in seminars and practical classes is obligatory.
   CAUTION: During the course of anatomy, the student is supposed to have the knowledge acquired from all previous practical classes and lectures.
2. The course of anatomy is divided into eight following modules:
   (a) osteology and arthrology, (b) central nervous system, (c) head and neck, (d) thorax, (e) abdomen, (f) retroperitoneal space and pelvis, (g) upper limb and back, (h) lower limb.
3. Before the seminar and practical class a student is obliged to watch an educational film introducing a given topic, available at the educational platform MUW (www.e-learning.wum.edu.pl/en).
4. A student is obliged to obtain a credit for each of practical classes by completing a quiz available at the educational platform (www.e-learning.wum.edu.pl/en).
   a. quizzes consist of 6 multiple-choice theoretical questions;
   b. they will be available directly after the end of practical class and through the next 24 hours, after this time the quiz will be closed and no additional attempts are planned;
   c. in order to pass the quiz, all questions must be answered correctly (6/6 points), the number of attempts is not limited;
   d. passing the quizzes is mandatory for being allowed to the Intermediate Credit.
5. Moreover, students have to participate in two intermediate credits (60 MCQ points and 60 practical test points).
6. Intermediate Credits are semestral tests covering the material of the semester:
   a. they are organized at the end of each semester;
   b. they include theoretical and practical parts, which are attempted separately;
   c. theorectical part consists of 60 questions (single best answer);
   d. practical part consists of 30 anatomical structures to be recognized;
   e. more than 4 absences (or uncompleted quizzes) excludes the student from being allowed to the Intermediate Credit in a given semester.
7. Absence exceeding four practical classes per semester excludes completion of the semester. The student is therefore not allowed to take the final examination in anatomy.
8. Rules for completing a semester and a year:
   a. to pass the anatomy course and be admitted to the Final Exam, it is necessary to obtain a minimum of 78 points for theoretical tests and a minimum of 78 points for practical tests from both Intermediate Credits.
   b. a student who obtained less than 78p for theoretical tests, at the end of the course, takes the theoretical part of Admission Test for the entire material (60 theoretical questions, passing level 65%).
   c. a student who obtained less than 78p for practical tests, at the end of the course, takes the practical part of Admission Test for the entire material (pin test, 30 pins, passing level 65%).
   d. a student who failed the Admission Test will have the 2nd attempt to Admission. Only the failed components are to be retaken (theoretical, practical or both).
   e. the 2nd Admission Test is organized after the closure of the anatomy course - this is an ultimate attempt. No other attempts will be organized.
   f. failure to meet the above conditions shall mean failure to complete the year and not being allowed to sit the Final Exam.
9. The final examination in anatomy is scheduled in summer examination period and consists of two parts: practical (pin) test and theoretical (Multiple Choice Questions test). The level to pass the practical examination is 36/40 basic points (the list of basic points is available at the educational platform MUW) and 76/120 total score. The level to pass MCQ is 76/120. Examination grades according to points: 152-169 – satisfactory, 170-187 – better than satisfactory, 188-205 – good, 206-223 – better than good, 224-240 – very good.
10. Retake of the Final Anatomy Examination is administered in September. Only the failed components are to be retaken.

11. Practical anatomy involves students in the examination and dissection of human subjects. This privileged opportunity relies on the generosity of local people who recognize the value to medicine that the practical study of human anatomy can provide and generously make their bodies available for that purpose to medical and science students.
    It is important that, at all times, you respect that generosity and behave accordingly. The students should wear long trousers or skirts. Shorts and mini-skirts are not allowed. A student violating the dress code will not be allowed to enter the Dissection Room.
12. Much of the course work is carried out in the Dissection Room. Only students of the Medical University of Warsaw who have a valid student ID, wear protective clothing: white surgical gown (fastened at the back), white surgical cap or other type of hair-cover, sleeves rolled up to the elbows, are allowed to enter the Dissecting Rooms. Due to the ongoing pandemic, mouth and nose coverage is mandatory. **The protective suit must be put on and taken off outside the Dissection Room**. Every student must wear an ID badge.
    Students are allowed to enter the Dissection Room only in time of practical classes of her/his students' group if not otherwise specified.
13. Students are required to arrive on time and to efficiently leave the Dissection Rooms after the end of class. A student who is more than 10 minutes late will not be admitted to the Dissection Room.
14. The rules of admission to Lab Classes, the procedure for entering and leaving the rooms, and the rules for using personal protective equipment are specified in the current ordinances of the Rector, announcements of the University Authorities and the University Team for COVID.
15. Unauthorized persons must not enter the Dissection Rooms.
16. Students MUST care about hygiene. In particular:
    a. have clean hands with short, unpolished nails; no jewelry is allowed,
    b. use protective gloves while examining of specimens,
    c. in the case of minor injuries rinse the wound in tap water and manage it properly.
17. While examining the specimens, sufficient care should be applied to prevent the damage or loss of the specimen.
18. Leaders of the student's groups are responsible for damage or loss of the specimen.
19. Smoking in the area of the Department of Anatomy, as in whole building of Collegium Anatomicum, is prohibited.
20. Eating and drinking in Dissection Rooms is prohibited.
21. The students can, and are encouraged, to bring the anatomical tweezers, books and atlases to the Dissection Rooms.
22. To gain from the practical classes as much as possible, the students should have sufficient theoretical knowledge about the current topic.
23. At the end of practical classes students should fix the specimens according to the teaching assistant suggestions.
24. **Taking of any photos or movies in dissection room is strictly prohibited!**
25. It is not allowed to use mobile phones in the area of the Department of Anatomy!
26. Students who do not follow the regulations and do not react to the warnings can be expelled from the class. In all the cases such event will be reported in student's files. In special cases the Dean will be informed about the student's misbehavior.
27. Due to the changing epidemiological situation, the method of conduction of the anatomy course will depend on the current regulations, orders of the University Authorities and the Head of the Department of Descriptive and Clinical Anatomy. In case of any change the students will be informed accordingly.

BASIC POINTS

GUIDELINES FOR THE SEMESTRAL AND FINAL PIN TESTS

Two structures marked with pins should be recognized on each of thirty stations.

There are 60 seconds of time per station.
It is not allowed to touch, move or rotate specimens.
The maximum score for one pin is 2 points.

Examples:
left superior thyroid a 2p.
right superior thyroid a 1p.
superior thyroid a 1p

thyroid a 0p.
left 0p

Attention! Recognition of single structure in the way suggesting that the structure is paired or multiple = 0p.
Example: right *trachea, left falx cerebri, superior tentorium cerebelli*

On the final examination you need 76 points to pass.
First 20 pins are so called basic points, it means the basic anatomical structures which should be known to every MD.
These points will be scored 2 or 0 points only!

Example: pin shows the left common carotid a

28. left common carotid a 2p.
    1. right common carotid a 0p
    2. common carotid a 0p.
    3. carotid a 0p.
    4. carotid 0p

You can make only two mistakes in the basic points section! In order to pass, you need at least 36 points from this section.

OSTEOLOGY AND ARTHROLOGY

When the pin indicates a bone, you have to write the name of the bone and the side

Since the clinical practice often requires more detailed knowledge about some structures, in cases listed below precise recognition of the structure is required.

CRANIUM	**SKULL** **Foramina and canals containing cranial nerves plus:**
canalis caroticus	carotid canal
meatus acusticus externus	external acustic meatus
canalis nasolacrimalis	nasolacrimal canal
fossa hypophysialis	hypophyseal fossa
protuberantia occipitalis externa	external occipital protuberance
sulcus sinus sagittalis superioris	sulcus of superior sagittal sinus
sulcus sinus transversi	sulcus of transverse sinus
sulcus sinus sigmoidei	sulcus of sigmoid sinus
alveolus dentalis	dental alveolus

It is not required to name the bone, but the side has to be given.

OSSA CRANII	**BONES OF THE SKULL**
os frontale	frontal bone
os ethmoidale	ethmoid bone
os temporale	temporal bone
os sphenoidale	sphenoid bone
os parietale	parietal bone
os occipitale	occipital bone
maxilla	maxilla
os zygomaticum	zygomatic bone
os palatinum	palatine bone
os nasale	nasal bone
mandibula	mandible

COLUMNA VERTEBRALIS	**VERTEBRAL COLUMN**
	part of vertebra (body, arch, spinous process) and its name (atlas, axis, prominens), and part of the

	vertebral column (e.g. spinous process of cervical vertebra)
dens axis	dens of axis (odontoid process)
os sacrum	sacrum
os coccygis	coccyx
promontorium	promontory
discus intervertebralis	intervertebral disc

THORAX	**THORAX**
costa	rib + side
costa prima	first rib
sternum	sternum

EXTREMITAS SUPERIOR	**UPPER EXTREMITY**
scapula: angulus inf., cavitas glenoidalis	scapula: inferior angle, glenoid cavity
clavicula	clavicle
humerus: caput, collum chirurgicum, epicondyli	humerus: head, surgical neck, epicondyli
radius	radius
ulna	ulna
ossa carpi	carpal bones (without side when separate)
ossa metacarpi	metacarpal bones (without side and number when separate)
phalanges	phalanges (without side and number when separate + distal phalanx))

EXTREMITAS INFERIOR	**LOWER EXTREMITY**
os coxae: crista iliaca, fossa iliaca, acetabulum, os pubis, tuber ischiadicum	hip bone: iliac crest, iliac fossa, acetabulum, pubis, ischial tuberosity
femur: caput, collum, trochanter maior, condylus medialis et lateralis	femur: head, neck, greater trochanter, medial and lateral condyle
patella	patella (no side when separate)
tibia: malleolus medialis	tibia: medial malleolus
fibula: malleolus lateralis	fibula: lateral malleolus
ossa tarsi	tarsal bones (without side when separate)
ossa metatarsi	metatarsal bone (without side when separate)
phalanges	phalanges (see upper extremity)

SYSTEMA NERVOSUM CENTRALE	**CENTRAL NERVOUS SYSTEM**
a. basillaris	basilar a
a. carotis interna	internal carotid a
medulla oblongata	medulla oblongata
pyramis medullae oblongatae	pyramid of medulla oblongata
pons	pons
radix n. trigemini	root of trigeminal n

ventriculus IV	fourth ventricle
vermis cerebelli	vermis of cerebellum
hemispherium cerebelli	cerebellar hemisphere
tonsilla cerebelli	cerebellar tonsil
mesencephalon	mesencephalon (midbrain)
aquaeductus mesencephali	cerebral aqueduct
crus cerebri	cerebral crus
thalamus	thalamus
corpus pineale	pineal body
ventriculus tertius	third ventricle
corpus mamillare	mamillary body
chiasma opticum	optic chiasm
nucleus caudatus	caudate nucleus
nucleus lentiformis	lentifom nucleus
capsula interna	internal capsule
ventriculus lateralis	lateral ventricle
plexus choroideus	choroids plexus
hippocampus	hippocampus
septum pellucidum	septum pellucidum
corpus callosum	corpus callosum
insula	insula
lobus temporalis	temporal lobe
lobus frontalis	frontal lobe
lobus occipitalis	occipital lobe
lobus parietalis	parietal lobe
sulcus lateralis	lateral sulcus
sulcus centralis	central sulcus
fissura longitudinalis cerebri	longitudinal fissure
tractus olfactorius	olfactory tract
bulbus olfactorius	olfactory bulb
medulla spinalis	spinal cord
COLLUM	**NECK**
m. sternocleidomastoideus	sternocleidomastoid
a. carotis communis	common carotid a
a. carotis interna	internal carotid a
a. carotis externa	external carotid a
v. iugularis interna et externa	internal and external jugular v
trachea	trachea
glandula thyroidea	thyroid gland
os hyoideum	hyoid bone
prominentia laryngis	laryngeal prominence
epiglottis	epiglottis
plica vocalis	vocal fold
cartilago thyroidea	thyroid cartilage
m. digastricus	digastric m
n. hypoglossus	hypoglossal n
glandula submandibularis	submandibular gland
a. subclavia	subclavian a
v. subclavia	subclavian v
plexus brachialis	brachial plexus
n. vagus	vagus n

n. phrenicus	phrenic n
m. scalenus ant.	scalenus anterior

CAPUT	**HEAD**
a. facialis	facial a
glandula parotis	parotid gland
labium superius	upper lip
labium inferius	lower lip
rima oris	mouth
palpebra sup.	upper eyelid
palpebra inf.	lower eyelid
nasus externus	external nose
mentum	mentum
m. masseter	masseter
m. temporalis	temporalis
gingiva	gum
lingua	tongue
palatum durum	hard palate
palatum molle	soft palate
uvula	uvula
tonsilla palatina	palatine tonsil
tonsilla pharyngea	pharyngeal tonsil
ostium pharyngeum tubae auditive	pharyngeal orifice of the auditory tube
sinus maxillaris	maxillary sinus
sinus frontalis	frontal sinus
sinus sphenoidalis	sphenoid sinus
concha nasalis inf.	inferior nasal concha
concha nasalis media	middle nasal concha
ganglion trigeminale	trigeminal ganglion
n. alveolaris inf.	inferior alveolar n
n. lingualis	lingual n
a. maxillaries	maxillary a
a. temporalis spf.	superficial temporal a
falx cerebri	cerebral falx
tentorium cerebelli	tentorium of cerebellum
sinus sagittalis sup.	superior sagittal sinus
sinus transversus	transverse sinus
sinus sigmoideus	sigmoid sinus
n. opticus	optic n
bulbus oculi	eyeball
cavum tympani	tympanic cavity
auris interna	inner ear

THORAX	**THORAX**
a. axillaris	axillary a
m. pectoralis maior	pectoralis major
m. latissimus dorsi	latissimus dorsi

n. ulnaris	ulnar n
n. medianus	median n
n.musculocutaneus	musculocutaneous n
n. radialis	radial n
n. axillaris	axillary n
m. intercostalis ext.	external intercostal muscle
m. intercostalis int.	internal intercostal muscle
a. thoracica interna	internal thoracic a
n. intercostalis	intercostal n
pleura parietalis	parietal pleura
truncus sympathicus	sympathetic trunk
esophagus	esophagus
trachea	trachea
n. vagus	vagus n
n. phrenicus	phrenic n
v. brachiocephalica	brachiocephalic v
v. cava sup.	superior vena cava
v. cava inf.	inferior vena cava
v. azygos	azygos v
ductus thoracicus	thoracic duct
aorta ascendens	ascending aorta
arcus aortae	arch of the aorta, aortic arch
truncus brachiocephalicus	brachiocephalic trunk
a. carotis communis dx. et sin.	left and right common carotid aa
a. subclavia sin et dx.	left and right subclavian aa
aorta descendens	descending aorta
truncus pulmonalis	pulmonary trunk
a. pulmonalis	pulmonary a
bronchus principalis	main bronchus
vena pulmonalis sup.	superior pulmonary v
vena pulmonalis inf.	inferior pulmonary v
apex pulmonis	apex of the lung
lobus superior pulmonis	superior pulmonary lobe, superior lobe of the lung
lobus medius pulmonis dx.	middle lobe of the right lung
lobus inferior pulmonis	inferior pulmonary lobe, inferior lobe of the lung
apex cordis	apex of the heart
atrium sin.	left atrium
auricula sin.	left auricle
atrium dx.	right atrium
auricula dx.	right auricle
valva aortae	aortic valve, valve of the aorta
valva trunci pulmonalis	pulmonary valve, valve of the pulmonary trunk
valva bicuspidalis	bicuspid valve, mitral valve, left atrioventricular valve
valva tricuspidalis	tricuspid valve, right atrioventricular valve
septum interventriculare	interventricular septum
fossa ovalis	oval fossa, fossa ovalis
ventriculus sinister	left ventricle
ventriculus dexter	right ventricle
a. coronaria sin.	left coronary a
a. coronaria dx.	right coronary a

sinus coronarius	coronary sinus
diaphragma	diaphragm
ABDOMEN	**ABDOMEN**
funiculus spermaticus	spermatic cord
umbilicus	umbilicus
m. rectus abdominis	rectus abdominis
linea alba	linea alba
lig. inguinale	inguinal lig
m. obl. ext. abdominis	external oblique abdominis
peritoneum parietale	parietal peritoneum
omentum maius	greater omentum
ventriculus	stomach
cardia ventriculi	cardiac part of the stomach, cardia
fundus ventriculi	fundus of the stomach
curvatura ventriculi minor et maior	lesser and greater curvature of the stomach
pylorus	pylorus
bulbus duodeni	ampulla of the duodenum, superior part of the duodenum, duodenal ampulla
duodenum	duodenum
mesenterium	mesentery
ieiunum	jejunum
ileum	ileum
caecum	caecum
appendix vermiformis	vermiform appendix
colon ascendens	ascending colon
colon transversum	transverse colon
colon descsendens	descending colon
colon sigmoideum	sigmoid colon
rectum	rectum
lien	spleen
pancreas	pancreas
lig hepatoduodenale	hepatoduodenal lig
ductus choledochus	common bile duct
vena portae	hepatic portal v
lobus sinister	left lobe of the liver
lobus dexter	right lobe of the liver
lobus caudatus	caudate lobe of the liver
lobus quadratus	quadrate lobe of the liver
ligamentum teres hepatis	round ligament of the liver
aorta	aorta
v. cava inf.	inferior vena cava
truncus celiacus	coeliac trunk
a et v. mesenterica sup.	superior mesenteric a and v
a. et v. mesenterica inf	inferior mesenteric a and v
vesica fellea	gallbladder

SPATIUM RETROPERITONEALE ET ORGANA UROGENITALIA	**RETROPERITONEAL SPACE AND UROGENITAL ORGANS**
m. psoas maior	psoas major

m. iliacus	iliacus m
n. femoralis	femoral n
n. obturatorius	obturator n
a. iliaca communis, externa et interna	common, external and internal iliac aa
v. iliaca communis, externa et interna	common, external and internal iliac vv
a. v. renalis	renal a and v
ren	kidney
pelvis renalis	renal pelvis
glandula suprarenalis	suprarenal gland, adrenal gland
ureter	ureter
vesica urinaria	urinary bladder
truncus symphaticus	sympathetic trunk
nodi lymphatici lumbales	lumbar lymph nodes
excavatio rectouterina	recto-uterine excavation, recto-uterine pouch
uterus	uterus
vagina	vagina
tuba uterina	uterine tube, Fallopian tube,
ovarium	ovarium
lig. latum uteri	broad ligament of uterus
testis	testis, testicle
epididymis	epididymis
ductus deferens	deferent duct, ductus deferens
prostata	prostate
urethra masculina	male urethra
corpus cavernosum penis	cavernous body of the penis
glans penis	glans penis, glans of the penis
scrotum	scrotum
urethra feminina	female urethra
labium maius pudendi	greater pudendal lip
labium minus pudendi	lesser pudendal lip
clitoris	clitoris
anus	anus
m. levator ani	levator ani

MEMBRUM SUPERIUS	**UPPER LIMB**
m. erector spinae	erector spinae
m. latissimus dorsi	latissimus dorsi
m. trapezius	trapezius
m. serratus ant.	anterior serratus
m. subscapularis	subscapular
m. infraspinatus	infraspinatus
m. supraspinatus	supraspinatus
m. deltoideus	deltoid
m. biceps brachii	biceps brachii, biceps of the arm
m. triceps brachii	triceps brachii, triceps of the arm
m. brachioradialis	brachioradialis
m. flexor carpi radialis	flexor carpi radialis, radial flexor of the wrist
m. flexor carpi ulnaris	flexor carpi ulnaris, ulnar flexor of the wrist

m. flexor digitorum spf.	flexor digitorum superficialis, superficial flexor of the fingers
m. flexor digitorum prof.	flexor digitorum profundus, deep flexor of the fingers
m. extensor digitorum	extensor digitorum, extensor of the fingers
thenar	thenar eminence
hypothenar	hypothenar eminence
a. axillaris	axillary a
a. brachialis	brachial a
a. radialis	radial a
a. ulnaris	ulnar a
v. basilica	basilic v
v. cephalica	cephalic v
n. medianus	median n
n. radialis	radial n
n. ulnaris	ulnar n
n. musculocutaneus	musculocutaneous n
unguis	nail

MEMBRUM INFERIUS	**LOWER LIMB**
m. iliacus	iliacus
m. psoas maior	psoas major
m. gluteus maximus	gluteus maximus
m. gluteus medius	gluteus medius
m. gluteus minimus	gluteus minimus
m. quadriceps femoris	quadriceps femoris, quadriceps of the thigh
m. sartorius	sartorius
m. adductor magnus	adductor magnus
tractus iliotibialis	iliotibial tract
m. gastrocnemius	gastrocnemius
m. soleus	soleus
tendo Achillis	calcaneal tendon
m. tibialis ant	anterior tibialis
a. v. femoralis	femoral a and v
a. v. poplitea	popliteal a and v
a. tibialis	tibial a
v. saphena magna	great (long) saphenous v
n. ischiadicus	sciatic n
n. femoralis	femoral n
n. tibialis	tibial n
n. peroneus communis	common peroneal n
lig. patellae	patellar lig
lig. cruciatum genus	cruciate lig of the knee
unguis	nail

Basic structure may be marked also in the further (non-basic) part of the exam and in such a case it should be described in a more detailed form to gather the maximal score. For example, if the pin is inserted in the left ulna the name of the specific region of the bone should be given, eg. left ulnar tuberosity.

Histology and embryology

1. IMPRINT	
Academic Year	**2022/2023**
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation Minister of Science and Higher education from 26th of July 2019)*	Medical science
Study Profile *(general academic / practical)*	general academic
Level of studies *(1st level /2nd level/ uniform MSc)*	Uniform MSc
Form of studies	full-time studies
Type of module / course *(obligatory / non-compulsory)*	obligatory
Form of verification of learning outcomes *(exam / completion)*	exam
Educational Unit / Educational Units *(and address / addresses of unit / units)*	**Department of Histology and Embryology** **Center for Biostructure Research** **02-004 Warszawa, Chałubińskiego 5 Str.(Anatomicum bldg.) Web site: http://histologia.wum.edu.pl** **Department office is open for students on working days.** **Business hours 9: 30 - 14: 00, tel/fax 22 629-5282.** **Department of Transplantology and Main Tissue Bank** **Center for Biostructure Research** **02-004 Warszawa, Chałubińskiego 5 Str.(Anatomicum bldg.)** **https://transplantologia.wum.edu.pl/** **Department office is open for students on working days.** **Business hours 9: 30 - 14: 00, tel./fax 22 621 75 43** **Department of Methodology**

	Preclinical Research Center Bldg. **02-091 Warszawa, 1b Banacha Street** **Web site: http://metodologia.wum.edu.pl** **metodologia@wum.edu.pl** **Department office is open for students on working days.** **Business hours 9: 30 - 14: 00**
Head of Educational Unit / Heads of Educational Units	**Jacek Malejczyk, Ph.D. Professor** **Artur Kamiński, M.D., Ph.D., Associate professor** **Paweł Włodarski, MD, PhD, Professor**
Course coordinator *(title, First Name, Last Name, contact)*	**Jacek Malejczyk, Ph.D., Professor** **jacek.malejczyk@wum.edu.pl**
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	**Jacek Malejczyk, Ph.D., Professor** **jacek.malejczyk@wum.edu.pl**
Teachers	**Department of Histology and Embryology:** **Jacek Malejczyk, Ph.D., Professor jacek.malejczyk@wum.edu.pl** **Stanisław Moskalewski, M.D., Ph.D., Professor stanislaw.moskalewski@wum.edu.pl** **Marek Kujawa, M.D., Ph.D. marek.kujawa@wum.edu.pl** **Anna Hyc, Ph.D., Associate professor anna.hyc@wum.edu.p** **Anna Iwan, Ph.D., Associate professor anna.iwan@wum.edu.p** **Izabela Młynarczuk-Biały, M.D., Ph.D., Associate profesor imlynarczuk@wum.edu.pl** **Łukasz Biały, M.D., Ph.D. lukasz.bialy@wum.edu.pl** **Ewa Jankowska Steifer, Ph.D., Associate professor ewa.jankowska@wum.edu.pl** **Justyna Niderla-Bielińska, Ph.D., Associate professor justyna.niderla@wum.edu.pl** **Aneta Ścieżyńska, Ph.D. aneta.sciezynska@wum.edu.pl** **Ilona Kalaszczyńska, Ph. D. ikalaszczynska@wum.edu.pl** **Department of Transplantology and Main Tissue Bank:** **Izabela Uhrynowska-Tyszkiewicz, M.D., Ph.D. iuhrynowska@wum.edu.pl** **Department of Methodology:** **Paweł Włodarski, M.D., D.D.S., Ph.D., Professor pawel.wlodarski@wum.edu.pl**

2. BASIC INFORMATION

Year and semester of studies	**1 (1 and 2 semester)**	**Number of ECTS credits**	**10**

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)	10	0,5
Seminar (S)	30	1,0
Classes (C)	60	5

e-learning (e-L)	-	
Practical classes (PC)	-	
Work placement (WP)	-	
Unassisted student's work		
Preparation for classes and completions	**100**	**3,5**

3. COURSE OBJECTIVES

The aim of the course of Histology and Embryology is to demonstrate and explain structure of the cell, tissues and organs. Starting from the ultrastructure of the cell, which is discussed along with the function of the organelles, microscopic anatomy of all human tissues and major organs is shown. During the classes, functional connection between microscopic anatomy of the organ and the function is highlighted. This is the background for further education of Biochemistry, Physiology and Pathology. Basis of the molecular biology and examples of diagnostic methods are lectured.

O1	Gaining knowledge regarding structure and function of the cell organelles, tissues and organs, as well as morphological adaptation of tissues to their function.
O2	Gaining knowledge regarding the development of the embryo, development and function of fetal membranes and the most common fetal abnormalities.
O3	Gaining knowledge regarding identification of histological specimens and characteristic elements of the tissues under the microscope.

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*

Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
A.W1.	**appropriate Polish and English anatomical, histological and embryological terminology;**
A.W4.	**basic cell structures and their functional specialisations;**
A.W5.	**microarchitecture of tissues, extracellular matrix and organs;**
A.W6.	**developmental stages of the human embryo, the composition and function of foetal membranes and placenta, as well as developmental stages of particular organs and the influence of detrimental factors on the development of embryos and foetuses (teratogenic).**
C.W49.	**enzymes participating in digestion, mechanism of the production of hydrochloric acid in the stomach, the role of bile, course of absorption of digestion products;**

B.W22.	**physiology and regulation of reproductive functions of women and men;**
Skills– Graduate* is able to:	
A.U1.	**use optical microscope, also when using immersion technique;**
A.U2.	**recognise histological structures of organs, tissues, cells and cellular structures under an optical and electron microscope, describe and interpret their structure and relations between the structure and the function;**
A.U5.	**use anatomical, histological and embryological terminology in spoken and written language;**

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*

Number of effect of learning	**Effects of learning i time**
Knowledge – Graduate knows and understands:	
K5	**perceiving and recognizing own limitations and self-assessment of deficits and educational needs**
K7	**readiness to use objective sources of information**
Skills– Graduate is able to:	
S1	
Social Competencies – Graduate is ready for:	
SC1	

6. CLASSES

Form of class	**Class contents**	**Effects of Learning**
W – Lectures	1. *Skeletal muscle in health and in disease.* 2. *Hematopoiesis mechanisms – clinical considerations.* 3. *Hormonal regulation of hypothalamus – hypophysis – ovary – uterus axis. Gamete formation and menstrual cycle.* 4. *Fertilization and embryo formation till blastocyst stage.* 5. *Implantation and its regulation via growth and differentiation factors. Immunological issues of fertilization, improper places of implantation, embryo formation (presomite stage).* 6. *Development of chorionic cavity and trophoblast. Neural tube and neural crest formation, differentiation of mesoderm, blood vessel formation, embryo folding, endoderm differentiation, pharyngeal cleft and pouches.* 7. *Placenta formation, umbilical cord, maternal and fetal circulation, congenital malformations.* 8. *Connective tissue regeneration and degradation.* 9. *Angiogenesis – therapeutic approach.* 10. *Challenges of modern medicine.*	**A.W1.** **A.W4.** **A.W5.** **A.W6.** **C.W49.** **B.W22.**
(S) Seminars;	*S - Microscope, histological technique.*	**A.W1.** **A.W4.**

(C) Practical classes;	*C - Various cell types.* ***S - Compartments of cells and their function.*** ***C - Electron microscope and cell structure.*** *S - Cell cycle and its regulation.* *C - Cell division.* ***S - Structure and function of epithelial tissue.*** ***C - Epithelial tissue, glands.*** *S - Structure and function of connective tissue proper and adipose tissue.* *C - Connective tissue proper and adipose tissue.* ***S - Structure of cartilage and bone.*** ***C - Cartilage and bone.*** *S - Development of various types of bone tissue; remodeling of bones.* *C - Bone formation.* ***S - Structure, organization and function of peripheral nervous system.*** ***C - Nervous tissue. Peripheral nervous system.*** *S - Structure, organization and function of muscular tissue.* *C - Muscle.* ***S - Formation of particular types of blood cells.*** ***C - Blood and bone marrow.*** *S - Structure of vessels with particular emphasis on function of endothelial cells.* *C - Circulatory system.* ***S - Demonstration of histological slides before the intermediate examination – general histology.*** ***C – Practical intermediate examination – general histology.*** *S - Hormones produces by the hypophysis, regulation by the hypothalamus.* *C - Endocrine glands.* ***S - Structure of female reproductive system and its hormonal regulation.*** ***C - Female reproductive system.*** *S - Structure of male reproductive system and hormone regulation.* *C - Male reproductive system.* ***S - Structure of the immune system, types of lymphocytes, lymphokines.*** ***C - Immune system*** *S - Structures of the oral cavity.* *C - Gastro-intestinal system, part 1.* ***S - Glands in stomach and intestines structure and function.*** ***C - Gastro-intestinal system, part 2.*** *S - Relationship between structure and function of the liver.* *C - Gastro-intestinal system, part 3.* ***S - Upper and distal respiratory tract.*** ***C - Respiratory system.*** *S - Relationship between nephrons and blood vessels.* *C - Urinary system.*	**A.W5.** **A.W6.** **C.W49.** **B.W22.** **A.U1.** **A.U2.** **A.U5.** **K5** **K7**

	S - Structure and function of skin, development of the mammary gland. ***C - Skin & its appendages, mammary gland.*** *S - Structure of the eye, function of the retina.* *C - Nervous system.* ***S – Discussion and demonstration of histological slides – microscopic anatomy.*** ***C - Practical intermediate examination in Microscopic Anatomy.*** *S - Discussion and demonstration of histological slides before Final Examination of the Histology and Embryology.* *C – Slide practice before Final Examination of the Histology and Embryology.*	

7. LITERATURE

Obligatory

1. Junqueira's Basic Histology: Text and Atlas, last edition
2. Gartner L. P., "Textbook of Histology", Elsevier, last edition.
3. Sadler T. W. "Langman's Medical Embryology", 2015, Wolters Kluwer Health, thirteenth edition.
4. Daniel J. Chiego, Jr.: "Essentials of Oral Histology and Embryology": A Clinical Approach, Elsevier 4th edition, 2014

Supplementary

1. Stevens A., Lowe J. "Human Histology" 2005, Elsevier Mosby, third ed.
2. Ross M.H., Pawlina W. "Histology: A text and atlas", 2011, Lippincott Williams & Wilkins, sixth ed.
3. Schoenwolf, Bleyl, Brauer, Francis-West "Larsen's Human Embryology" 5th Ed.
4. Nanci A. "Ten Cate's - Oral Histology", 2008, Elsevier, seventh edition or newer

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
A.W1; A.W4; A.W5; A.W6; B.W22; C.W49; A.U5	**intermediate examination, final examination**	**minimum 60 % of good answers in total**
A.U1; A.U2	**practical class – notebook drawings, practical intermediate examination, practical final examination**	**credit from the teacher; minimum 60 % of good answers in total in practical intermediate and final examinations**
K5; K7	**observation by the teacher during the classes**	**credit from the teacher**

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

1. The student research club is supervised by Izabela Młynarczuk-Biały, M.D, Ph.D. and Ryszard Galus, M.D. Ph.D., Associate professor http://histologia.wum.edu.pl - Studenckie Koło Naukowe

General regulations - Histology and Embryology for medical students 6ED
2022/2023

Organization of classes and seminars

1. Histology and Embryology is taught during lectures, seminars and practical classes.
2. Presence in lectures, seminars and practical classes is obligatory. Coming late to class by more than 15 minutes will be treated as an absence.
3. Classes begin with the seminar followed by a practical part.
4. Students have to be prepared for the class. Tutor will verify student's preparation to the class. Subject of seminars and classes are specified in the Topics of classes and lectures.
5. During the class, students discuss with their professor topics of the class and inspect microscopic slides,
6. schemes and electronograms. Images of tissues and organs inspected under the microscope should be drawn with color crayons in the notebook. All drawings have to be properly described (legend to the drawing).
7. Microscopes are provided for every student in the class. At the end of the class student should switch off the microscope and cover it. Microscopic slides, electronograms, microscopes or their parts must not be removed from the class.
8. During the period preceding intermediate or final examinations, every student group can borrow a set of demonstration slides for an at-home training. Sets can be exchanged any number of times. Before exchanging or returning the set, students have to put slides in order, according to the attached list. Students are financially liable for lost or damaged slides.

Presence in the classes and seminars

- To get the credit for the semester Student must be present in lectures and seminars and get credit in all classes.
- The prerequisite for getting a credit for the class is a positive note received on the knowledge of the discussed subject and properly done drawings of microscopic slides.
- Days of classes, including days of intermediate examinations, are days of obligatory presence.
- **It is permitted to be absent up to 2 times during lectures and 2 times during classes in each semester.** Absence must be justified with the tutor. **Absence on 3 or more classes, regardless of the reason, results in not getting a credit for the semester**, hence student will not be admitted to the intermediate examination.
- **When students are absent, they are expected to negotiate with professors the form for make-up of lectures, seminars or classes missed.**
- Student is obliged to make up for missed class.
- Classes uncredited because of an absence or being unprepared must be passed in the form established by the Head of the Department. Head of the Department will appoint the date of this test.

Credit

1. Dates of the intermediate examinations are decided by the university Pedagogical Council and cannot be changed.
2. Only students who were present in lectures, seminars and got credit for all the classes are admitted to the intermediate examination.
3. Intermediate examination in general histology and in microscopic anatomy consist of two parts: practical (slide recognition) and theoretical.
4. Intermediate examination in embryology has no practical part.
5. Intermediate examinations on the first and the second date are MCQ tests. Other dates of the intermediate examination have the form that is determined by the Head of the Department.
6. Electronic intermediate examination tests online consist of 50 single choice questions. The duration of intermediate examination is 50 minutes. Electronic test examinations are held in the building of Main Library in the computer room.
7. The criteria to pass the test are determined by the Head of the Department, after the test, and they are expected to be not less than:
8. 60% of all questions in the test.
9. **Students may evaluate their paper during the quiz. Then, if any reservations arise, students can flag the question and express their concerns. Later complaints will not be accepted.**
10. The Department appoints two dates of each intermediate examination.
11. Intermediate practical part must be passed before the date of the retake MCQ test. Students who failed practical part of any intermediate examination before the date of the retake examination will not qualify for the retake and last retake of MCQ test.

Final examination

1. The final examination comprises topics discussed during classes, seminars and lectures.
2. Student must pass all intermediate examinations scheduled in the program of the course to be admitted to the final examination.
3. Dates of the final examinations are decided by the university Pedagogical Council and cannot be changed.
4. Final examination consists of two parts: practical and theoretical.
5. Failing practical or theoretical part results in failing the examination.
6. **Head of the Department can exempt a student from the THEORETICAL final examination, when the average of all students' marks received on intermediate examinations was at least 4½. Student IS NOT exempted from PRACTICAL examination. For such exemption student needs to apply to the Head of the Department in writing (template of the application is available on the Department web site).**

7. In the case of an absence during the final examination caused by medical condition, should present doctor's leave during three working days from the date of examination, or will receive a failing mark.
8. Retake of the examination is held during the retake examination session. If the student fails this examination, he/she can apply to the Dean for the permission for the second retake of the examination.

Practical examination

1. Practical part of the examination consists of recognizing 10 histological slides. Minimal number of recognized slides is 6. For each additionally recognized slide, the student receives 1 point, and for recognizing 10 slides - 5 points.
2. Students who failed practical examination on the first date will take the MCQ test, whose positive result will be treated as the result of retake examination (student has to take again only practical examination).
3. Students who passed practical examination on the first date, but failed the MCQ test, do not have to take the practical examination once again during the retake (student has to take again only MCQ test).

Theoretical examination

1. Theoretical part of the examination is the MCQ test that consists of 100 single choice questions. The duration of intermediate examination is 100 minutes. Electronic test examinations are held in the building of Main Library in the computer room.
2. Examination test contains questions on topics discussed in the course.
3. The criteria to pass the test are determined by the Head of the Department, after the test, and they are expected to be not less than:
    - 60% of questions in the remaining part of the test.
4. **Students may evaluate their paper during the quiz. Then, if any reservations arise, students can flag the question and express their concerns. Later complaints will not be accepted.**

Final grade

1. Final mark is set on the basis of both: practical and theoretical examination. Points received on both parts of the examination are considered.
2. Points from the practical examination are added to the points received on the MCQ test only to students, who had passed the MCQ test.
3. Points from the practical examination are added only once. These points are not added in examinations conducted during the retake session.

Position of the Chair regarding cheating during examinations

Cheating on examinations is a breach of ethics and Regulations of Studies at the Warsaw Medical University. Person actively or passively participating in cheating shall be punished by being expelled from the examination and receiving a failing mark. On the top of that, the Department shall institute disciplinary procedure against the cheating students.

Person actively participating in cheating is the one, **who copies results from other students or uses illegal notes or electronic devices to communicate or store data. Bringing such devices to examinations is forbidden.**
Passive participation in cheating means allowing other students copy one's own responses. Thus, a student is obliged to behave honestly, not to allow other students copy his/her own responses.
Head of the Department obliges students and examiners to strictly obey these regulations.

Signature of the Head of the Unit

Signature of the person responsible for the syllabus

OCCUPATIONAL SAFETY AND HEALTH AT WORK/STUDY

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher educatio from 26th of July 2019)*	**Medical science**
Study Profile *(general academic / practical)*	General academic
Level of studies *(1st level /2nd level/ uniform MSc)*	uniform MSc
Form of studies	**Full time studies**
Type of module / course *(obligatory / non-compulsory)*	**Obligatory**
Form of verification of learning outcomes *(exam / completion)*	**completion**
Educational Unit / Educational Units *(and address / addresses of unit / units)*	Department of Social Medicine and Public Health Oczki 3, 02-007 Warsaw tel: (+48 22) 621 51 97 tel./fax: (+48 22) 621 52 56 msizp@wum.edu.pl Department of Labor Protection and Environment Oczki 3., str. 02-007 Warsaw

	Tel. 22-57-20-884 elzbieta.domaszewicz@wum.edu.pl
Head of Educational Unit / Heads of Educational Units	Prof. MD Aneta Nitsch-Osuch, Elżbieta Domaszewicz, MSc
Course coordinator *(title, First Name, Last Name, contact)*	Irena Kosińska, MSc, PhD irena.kosinska@wum.edu.pl 664-268-514
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	Irena Kosińska MSc, PhD
Teachers	Irena Kosińska, MSc, PhD Sylwia Ziarek , MSc

2 BASIC INFORMATION

Year and semester of studies	I year, I semester	**Number of ECTS credits**	1,00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)		
Seminar (S)		
Practical classes (C)		
e-learning (e-L)	4 (Lecture)	0,16
Unassisted student's work		
Student's preparation for a seminar		
Student's preparation for a class		
Preparation for classes and completions (exam)	**21**	0,84

3 COURSE OBJECTIVES

O1	The aim of education is to familiarize students with the principles of occupational health and safety and fire safety during their studies at the Medical University of Warsaw, with particular emphasis on the risks associated with practical classes

	The subject is implemented under the Regulation of the Minister of Science and Higher Education of 30 October 2018 on how to ensure safe and hygienic working and education conditions at the university (Journal of Laws 2018, item 2090). (Pursuant to Article 51 paragraph 2 of the Act of 20 July 2018 - Law on Higher Education and Science (Journal of Laws, item 1668 and 2024))

4 STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*	
Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
C.W.14	The impact of abiotic and biotic (viruses, bacteria) environmental factors on the human body and the human population, and the routes of their penetration into the human body
C.W.15.	The consequences of exposure of the human body to various chemical and biological factors and the principles of prevention
C.W.20.	basic of disinfection, sterilization and aseptic procedures
D.W.18.	Team work rules
E. W.32	Basic issues of prevention and rules of conduct in the event of occupational exposure to hazardous and harmful factors
Skills– Graduate* is able to:	
D.U2	See the signs of anti-health and self-destructive behaviors and respond to them properly
D.U13	Follow ethical patterns in professional activities
D.U16	Show responsibility for improving their qualifications and transferring knowledge to others
E.U26	Plan management of exposure to blood borne infection

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5 ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*	
Number of effect of learning	**Effects of learning i time**
Knowledge – Graduate knows and understands:	

K1	
Skills– Graduate is able to:	
S1	
Social Competencies – Graduate is ready for:	
SC1	Noticing and recognizing own limitations, self-assessment of deficits and educational needs
SC2	Promoting pro-health behaviors
SC3	Use of objective information sources
SC4	Accepting responsibility related to decisions made in the course of professional activity, including the categories of self and others' safety

6 CLASSES

Form of class	Class contents	Effects of Learning
e-learning (e-L)	**Lecture 1**. Legal regulations in Occupational Safety and Hygiene (student obligations and right) Potential threats on workplace during the study (physical, chemical, biological, psychosocial factors) and protection against them. Post exposure prophylaxis procedure (PEP) tasks entailing exposure to HIV, HBV, HCV;	C.W15, C.W20, E.W32 E.U26, D.U16, D.U13, C.W.14 SC1, SC2, SC3, SC4
e-learning (e-L)	**Lecture 2**. Principles of ergonomy (health aspects of work on computer, illumination)	D.U2, SC2,SC2, SC3
e-learning (e-L)	**Lecture 3**. Proceedings in case of accident at work and in the event of special risk (fire, failure, a terrorist attack, flood and other) Principles of evacuation from buildings	D.W18, E.W32, D.U2, SC1, SC2, SC3, SC4;
e-learning (e-L)	**Lecture 4**. Principles to administer first aid	C.W15, C.W20, D.U13, SC!, SC@, SC3, SC4;

7 LITERATURE

Obligatory

1. Training materials (from lectures)
2. Internet site: www.osha.eu.int, www.who.int
3. Craighead E.J.: Pathology of Environmental an Occupational Disease, Mosby, 1995
4. Levy B.S., Wegman D., H.: Occupational Health. Recognizing and Preventing Work-Related Disease, 2005

Supplementary

1. Journal of Occupational & Environmental Medicine (selected number)
2. www.cdc.gov/niosh, www.ilo.org, www.ciop.pl

8 VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
e.g. G.K1, G.S1, K1	*This field defines the methods used for grading students e.g. pop quiz, test, written report etc.*	*e.g. threshold number of points*
e-learning (e-L) (e-L) 1 - (e-L) 4 C.W15, C.W20, D.W18, E.W32, D.U2, D.U13, D.U16, E.U26 C.W14 ; SC1, SC2, SC3, SC4 ;	Obligatory participation in e-learning lectures. Survey and test solution. Obtaining a certificate. Pass test: (20 single-choice questions), max 20 points can be obtained for the correct solution of the test - Test evaluated according to the criterion given on the right.	Completing the course consists of: 1. Preparation of the student to pass the subject - in accordance with the topics of the course and content of education and applicable literature 2.First, you should complete questionnaires before starting the test. Questionnaire . examine the general state of the Student's knowledge of hygiene rules, 3. Test solution: (the test continues 10 min) Passing the test **Criterion evaluation:** 2.0 (failed) - Receiving <12 points of correct answers from the test, absence from the lecture, no completed questionnaire. 3.0 (satsfactory) - meeting all the criteria for passing,(test - 12-14points) 3.5 (rather good) - meeting all pass criteria, (test - 15-16 points) 4.0 (good) - meeting all criteria for passing, (test- 17 points) 4.5 (more then good) - meeting all pass criteria, (test: 18 points) 5.0 (very good) - meeting all the criteria for passing, (test: 19-20 points)

9 **ADDITIONAL INFORMATION** *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

1. Classes are held in the form of e-learning on the e-learning platform of the Medical University of Warsaw.
2. The condition of passing the course is a positive grade from the test completing the e-learning course and completing the survey. You can take the test a maximum of two times.
3. Completion of the course takes place on the e-learning platform in the first semester. The personally signed Certificate should be sent to the address bhpstudent@wum.edu.pl
4. If the course is not passed, it is necessary to contact the course coordinator - dr inż. Irena **Kosińska (irena.kosinska@wum.edu.pl Phone number: 664-268-514, ul. Oczki 3, room 216)**
5. Rewriting the course credit is done with the consent of the Head of the Department of Social Medicine and Public Health Prof. MD Aneta Nitsch-Osuch (an application should be submitted to the secretariat of the Department p.101, at the beginning of the winter semester)
6. The Scientific Society of Hygiene and Prevention operates at the Department of Social Medicine and Public Health (contact irena.kosinska@wum.edu.pl) and the website of the circle: www.skn-higiena-profilaktyka.wum.edu.pl), implemented topics: Hygiene environment and nutrition.

Biophysics

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	Medical sciences
Study Profile *(general academic / practical)*	General academic
Level of studies *(1st level /2nd level/ uniform MSc)*	Uniform MSc
Form of studies	Full time studies
Type of module / course *(obligatory / non-compulsory)*	Obligatory
Form of verification of learning outcomes *(exam / completion)*	Credit
Educational Unit / Educational Units *(and address / addresses of unit / units)*	Department of Biophysics, Physiology and Pathophysiology Faculty of Health Sciences, Medical University of Warsaw, 5 Chałubińskiego Str., 02-004 Warsaw

	phone: +48 22 6286334 phone/fax: +48 22 6287846
Head of Educational Unit / Heads of Educational Units	Dariusz Szukiewicz, PhD, DSc, ProfTit
Course coordinator *(title, First Name, Last Name, contact)*	Piotr Jeleń, MSc, PhD e-mail: piotr.jelen@wum.edu.pl phone: +48 22 6286334
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	Piotr Jeleń, MSc, PhD e-mail: piotr.jelen@wum.edu.pl phone: +48 22 6286334
Teachers	Dariusz Szukiewicz, PhD, DSc, ProfTit Maria Sobol, MSc, PhD Agnieszka Malinowska, MSc, PhD Piotr Jeleń, MSc, PhD

2. BASIC INFORMATION

Year and semester of studies	I year, 1 semester	**Number of ECTS credits**	3.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)	4	0,16
Seminar (S)	15	0,60
Classes (C)	15	0,60
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions	41	1,64

3. COURSE OBJECTIVES

O1	Physics of human body

O2	Impact of physical factors on human body
O3	Physical bases of chosen imaging and therapeutic techniques in medicine

4. **STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING** *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*

Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
B.W5	laws of physics referring to fluid flow and the determinants of resistance to blood flow;
B.W6	natural and artificial sources of ionising radiation and the mechanisms of interaction of ionising radiation with matter;
B.W7	physicochemical and molecular basis of the functioning of sensory organs;
B.W8	physical bases of non-invasive imaging techniques;
B.W9	physical bases of the chosen therapeutic techniques including ultrasounds and irradiations;
Skills– Graduate* is able to:	
B.U1	apply physical phenomena to explain the effects of external factors, such as temperature, acceleration, pressure, electromagnetic field and ionising radiation on the human organism and its components;
B.U2	assess the health effects of absorption of a given dose of ionising radiation and observe the radiation protection rules;
B.U9	use the basic measurement equipment and assess the precision of the measurements;

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. **ADDITIONAL EFFECTS OF LEARNING** *(non-compulsory)*

Number of effect of learning	**Effects of learning i time**
Knowledge – Graduate knows and understands:	
Skills– Graduate is able to:	

Social Competencies – Graduate is ready for:	

6. CLASSES

Form of class	Class contents	Effects of Learning
Lecture L1	Biophysics in contemporary medicine.	B.W5, B.W6, B.W7, B.W8, B.W9
Lecture L2	The basics of ionising radiation and radiation protection	B.W6, B.W9
Seminar S1	Introduction to thermodynamics. Biological membranes (passive and active transport across a cell membrane, resting membrane potential, action potential).	B.W7, B.U1
Seminar S2	Biophysics of circulation (basic physical laws of fluid flow, types of fluids in fluid mechanics, laminar, turbulent and pulsatile flow, blood circulation system, physical properties of blood and blood vessels).	B.W5
Seminar S3	Heart electrical activity (genesis of ECG, heart axis).	B.W8, B.U9
Seminar S4	Respiratory biophysics (structure of the lungs, mechanics of breathing, respiratory cycle, gas flow in airways partial pressures of gases). Spirometry (pulmonary volumes and capacities). Respiration under usual and unusual conditions.	B.W5, B.U1, B.U9
Seminar S5	Imaging techniques in medicine (CT, PET, SPECT, MRI).	B.W8
Class C1	Sound waves. Physical bases of hearing. Audiometry screening and interpretation.	B.W7, B.U1, B.U9
Class C2	Physical basics of ultrasonography.	B.W8, B.U9
Class C3	Doppler ultrasonography. Blood flow characteristics in arteries.	B.W5, B.W8, B.U9
Class C4	Biophysics of vision (image formation in the human eye, eye accommodation, vision defects and their correction, eyepiece magnification).	B.W7, B.U9
Class C5	X rays – measurements and interpretation. Health effects of ionizing radiation absorption. Principles of radiological protection.	B.W6, B.W9, BU2, B.U9

7. LITERATURE

Obligatory

1. Daviodovits P.: Physics in Biology and Medicine (5-th ed.), Academic Press, 2018.

2. Herman I.P.: Physics of the Human Body, Springer, Berlin-Heidelberg-New York, 2016.

3. Ronto G., Tarjan I. (Eds.): An Introduction to Biophysics with Medical Orientation, (3rd ed.), Akadémiai Publishing Company, Budapest, 1999.

Supplementary

1. Glaser, R.: Biophysics, Springer-Verlag 2005.

2. Hobbie R.K., Roth B.J.: Intermediate Physics for Medicine & Biology (5-th ed.), Springer International Publishing AG, 2015.

3. Malmivuo J., Plonsey R.: Bioelectromagnetism, - Principles and Applications of Bioelectric and Biomagnetic Fields. New York, Oxford University Press, 1995.

4. Samuel J. Ling, Truman State University, Jeff Sanny, Loyola Marymount University William Moebs formerly of Loyola Marymount University (senior contributing authors)
University Physics (Vol 1, Vol 2, Vol 3) Access for free at openstax.org.

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
e.g. G.K1, G.S1, K1	*This field defines the methods used for grading students e.g. pop quiz, test, written report etc.*	*e.g. threshold number of points*
B.W5	Quiz, written report, final test	threshold number of points: 60 %
B.W6	Quiz, written report, final test	threshold number of points: 60 %
B.W7	Quiz, written report, final test	threshold number of points: 60 %
B.W8	Quiz, written report, final test	threshold number of points: 60 %
B.W9	Quiz, written report, final test	threshold number of points: 60 %
B.U1	Positive assessment of the skills acquired during the classes conducted by the teacher	sufficient skill acquisition assessed by a teacher
B.U2	Positive assessment of the skills acquired during the classes conducted by the teacher	sufficient skill acquisition assessed by a teacher
B.U9	Positive assessment of the skills acquired during the classes conducted by the teacher	sufficient skill acquisition assessed by a teacher

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

Before the first meeting students should check on the website of Department of Biophysics, Physiology and Pathophysiology which group they belong to and what is the order of seminars/experiments in that group (see “Division into Groups” and “Schedule”). If the sequence is changed this fact will be announced on the website.

Students belong to particular groups according to the division provided by the Dean’s Office (it is not a matter of free choice). Students can change their groups only at the beginning of the course in justified cases.

Before laboratory classes, students should read and understand the relevant instructions available on the e-learning platform. At the beginning of laboratory classes students can expect an introduction given by the teacher. Then the experiment / (demonstration) will be performed. Finally, students receive a form of an experimental report with the instructions to be followed and the questions to be answered. The report should be signed by a student. The form should be returned to the teacher before the end of the meeting.
Students are assessed on basis of the results of their reports. The results should be available for the students the next week.

Students' achievements are graded based on the final test results covering all material from lectures, seminars and practical classes. The test will be composed of 60 questions. To be admitted to the final test students are obliged to fulfil the following conditions:

- attend all seminars and practical classes,
- pass all of the quizzes on the e–learning platform (after each lecture and seminar students should complete a short quiz; to pass the quiz, student has to answer correctly at least 60 % of the questions),
- submit 5 experimental reports and collect at least 15 points (one experimental report would be assessed for maximum 5 points).

To pass the final test, the student has to answer correctly at least 60% of the questions.

Rules of grading:

grade	criteria
2.0 (failed)	0-35 correct answers
3.0 (satisfactory)	36-40 correct answers
3.5 (rather good)	41-45 correct answers
4.0 (good)	46-50 correct answers
4.5 (more than good)	51-55 correct answers
5.0 (very good)	56-60 correct answers

Students who fail the test may retake it. There are two (and only two!) chances of repeating the final test.

All absences must be excused (e.g. sick leave) and made up in the manner indicated by the teacher.
The further detailed information for students will be available on the website of the Department of Biophysics, Physiology and Pathophysiology.

Clinical Informatics and Biostatistics

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline	Medical science
Study Profile	General academic
Level of studies	Uniform MSc
Form of studies	Full time studies
Type of module / course	Obligatory
Form of verification of learning outcomes	Credit
Educational Unit	Department of Medical Informatics and Telemedicine 00-581 Warszawa, Litewska 14/16 phone (+48) 22 116 92 44 e-mail: zimt@wum.edu.pl
Head of Educational Unit	Andrzej Cacko, MD, PhD
Course coordinator	Joanna Michalik, MD, joanna.michalik@wum.edu.pl
Person responsible for syllabus	Joanna Michalik, MD, joanna.michalik@wum.edu.pl
Teachers	Andrzej Cacko, MD, PhD; andrzej.cacko@wum.edu.pl Joanna Michalik, MD; joanna.michalik@wum.edu.pl Krzysztof Krasuski, M.Sc.; krzysztof.krasuski@wum.edu.pl Jakub Kosma Rokicki, MD; jakub.rokicki@wum.edu.pl Irena Sergiej-Monkiewicz, MD; Emanuel Tataj, M.Sc.; emanuel.tataj@wum.edu.pl

2. BASIC INFORMATION

Year and semester of studies	I year, 1 and 2 semester	**Number of ECTS credits**	2.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)	4 (4 e-learning)	0,15
Seminar (S)	6 (6 e-learning)	0,21
Classes (C)	24	0,88
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions	21	0,76

3. COURSE OBJECTIVES

	The subject is taught in two modules: Clinical informatics and telemedicine and Biostatistics in clinical practice. The course is conducted in the form of blended-learning in lectures and in practice - in classes with an assistant, using a computer or a tablet. During the classes, clinical data collected in the Department during statistical analyses and examples of medical images are used.
O1	During the course, the student learns the basics of biostatistics, databases, including bibliography, applications enabling scientific research and sample programmes useful in professional practice.
O2	The aim of the classes is also to present basic information on new specialisations and medical faculties: telemedicine, medical and clinical computer science, e-Health, mHealth and virtual reality.
O3	Student will develop practical skills in data processing and analysis.

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING	
Code and number of effect of learning in accordance with standards of learning	**Effects in time**
Knowledge – Graduate* knows and understands:	
B.W26.	basic information about technology and biostatistical methods used in medicine, including medical databases, spreadsheets and basics of computer graphics
B.W27.	basic statistical analysis methods used in experimental and clinical research
B.W28.	applications of the contemporary telemedicine as a tool supporting a medical doctor's work
B.W29.	how to perform scientific, observational and experimental research, as well as in vitro tests the purpose of which is the development of medicine
Skills– Graduate* is able to:	
B.U10.	use databases, including the Internet and search for needed information with available tools
B.U11.	select the appropriate statistical test, perform basic statistical analyses and use appropriate methods for presenting the results; interpret the results of metanalysis, as well as conduct an analysis of the probability of surviving
B.U12.	explain the differences between prospective and retrospective study, randomised and clinical and case-control studies, descriptions of cases and experimental research, as well as arrange them according to their credibility and quality of scientific evidence
B.U13.	plan simple research and interpret the results and draw conclusions

5. ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*	
Number of effect of learning	**Effects of learning i time**
Knowledge – Graduate knows and understands:	
K1	process of developing new specialisations in the field of the academic discipline – medical sciences and achievements of leading representatives of Polish and world medicine
K2	fundamentals of evidence-based medicine
K3	methods of health assessment and the classification systems of diseases and medical procedures
Skills– Graduate is able to:	
S1	critically analyse medical literature, including English literature, and draw conclusions
Social Competencies – Graduate is ready for:	
SC1	keeping medical privilege and patients' rights

SC2	the use of objective data sources

6. CLASSES		
Form of class	**Class contents**	**Effects of Learning**
Lectures	**The module: Clinical Informatics and Telemedicine consists of lectures and classes. E-learning lectures are published on the eWUM Platform during the whole course.** **L1. – Lecture 1 –** Telemedicine - legal and practical background. **Asynchronous e-learning, eWUM platform, specified weeks**	B.W28., K1, K2, K3, S1, SC1, SC2
	L2. – Lecture 2 – Electronic Health Records. Rules of entering and storing data. Providing access to medical records and personal data protection. **Asynchronous e-learning, eWUM platform, specified weeks**	B.W28., K1, K2, K3, S1, SC1, SC2
	L3. – Lecture 3 – Selection of IT tools in the physician's professional practice. Medical databases. **Asynchronous e-learning, eWUM platform, specified weeks**	B.W28., K1, K2, K3, S1, SC1, SC2
	L4. – Lecture 4 – Decision Support Systems. **Asynchronous e-learning, eWUM platform, specified weeks**	B.W28., K1, K2, K3, S1, SC1, SC2
Classes	**C1. – Class 1 – Medical Internet.** Online bibliographic databases - medical information research and methodology for evaluating the reliability of information. Evidence-based medicine. **Onsite class**	B.W26., B.W27., B.W29., B.U10., B.U12., B.U13., K2., K3, S1, SC1, SC2
	C2. – Class 2 – Medical imaging - DICOM characteristics. Software for analysing and processing medical images. Fundamentals of image processing - discussion of basic formats, compression methods and their properties. Image data in medicine - examples. **Onsite class**	B.W26., B.U13., W1., S1, SC1, SC2
	C3. – Class 3 – mHealth, eHealth. New medical technologies. Telemedicine as a solution of health care problems. Examples of practical implementations. **Onsite class**	B.W26., B.W28., B.U10., K1., K3, S1, SC1, SC2
Classes	**Module Biostatistics in Clinical Practice. The e-learning lectures in this module are published on the eWUM Platform at deadlines specified for particular groups and are obligatory. There are no onsite classes during the period when these lectures are published.** **C4. – Class 4 – Database design.** Preparation and processing of data for statistical calculations. Data readability. Usage of a spreadsheet as a simple medical database, overview of program functions. **Onsite class**	B.W26., B.W27., B.W29., B.U10., B.U13., K3, S1, SC1, SC2
Seminars	**S1. – Seminar 1 – Introduction to biostatistics.** Research methodology - statistical methods. Planning a scientific research - an algorithm of investigation. Basic terms and statistical measurements. **Asynchronous e-learning, eWUM platform, specified weeks**	B.W26., B.W27., B.W29., B.U10., B.U11., B.U12., B.U13., K2., K3, S1, SC1, SC2
	S2. – Seminar 2 – Introduction to biostatistics.	B.W26., B.W27., B.W29., B.U10., B.U11., B.U12., B.U13.,

	Review of chosen statistical tests - selection of test according to the type of variables. Descriptive analysis and statistical inference. Interpretation of statistical analysis results. Selected techniques of statistical analysis. **Asynchronous e-learning, eWUM platform, specified weeks**	K2., K3., S1, SC1, SC2
Classes	**C5. – Class 5 – Descriptive statistics.** Distribution of a variable. Practical exercises on the selected samples. Introduction to the software for statistical analysis planning and data visualisation. **Onsite class**	B.W26., B.W27., B.W29., B.U10., B.U11., B.U12., B.U13., K2., S1, SC1, SC2
	C6. – Class6 – Statistical analysis software - practical classes. Hypothesis testing. Use of parametric and non-parametric tests. Exercises on sample clinical data. **Onsite class**	B.W26., B.W27., B.W29., B.U10., B.U11., B.U12., B.U13., K2., S1
	C7. – Class 7 – Statistical analysis software - practical classes. Regression analysis. Exercises on sample clinical data. Overview of selected publications. **Onsite class**	B.W26., B.W27., B.W29., B.U10., B.U11., B.U12., B.U13., K2., S1
	C8. – Class 8 – Evaluation of the Population Health. Analysis of selected indicators and data from WHO databases. **Onsite class**	B.W26., B.W27., B.W29., B.U10., B.U11., B.U12., B.U13., K2., S1, SC1, SC2
	E-test (MCQ) – questions on the material of lectures and classes. **The electronic test is conducted during the last class.**	B.W26., B.W27., B.W28., B.W29., B.U10., B.U11., B.U12., B.U13., K1, K2, K3, S1, SC1, SC2

7. LITERATURE

Obligatory

1. Lectures and educational materials prepared on WUM e-learning Platform.

Supplementary

1. Clinical Informatics Study Guide Text and Review. John T. Finnell, Editor, Brian E. Dixon, Editor, Springer 2016.
2. Fundamentals of Clinical Trials, 4e, Lawrence M. Friedman, Curt D. Furberg, David L. DeMets, Springer 2010
3. Digital Imaging and Communications in Medicine (DICOM), Oleg S. Pianykh, Springer 2012
4. Epidemiology and Biostatistics, Bryan Kestenbaum, Springer 2009

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
B.W26., B.W27., B.W28., B.W29., B.U10., B.U11., B.U12., B.U13., K1, K2, K3, S1, SC1, SC2	Lecture completion: completion of e-learning activities by the specified deadline.	To pass the e-modules - obtaining at least 51% of the points.

B.W26., B.W27., B.W28., B.W29., B.U10., B.U11., B.U12., B.U13., K1, K2, K3, S1, SC1, SC2	Completion of classes with teacher: activity, fulfilment of exercises.	Monitoring of the exercises by the teacher. The assistant gives a final evaluation of all the classes.
B.W26., B.W27., B.W28., B.W29., B.U10., B.U11., B.U12., B.U13., K1, K2, K3, S1, SC1, SC2	Course completion: e-test: lectures and classes material, 50 questions, open questions and MSQ. **The electronic test is conducted during the last class. The format of the electronic test (online/onsite) depends on the epidemic situation.**	**Grade ranges for the electronic test:** 2.0 (ndst) up to 51% of points 3.0 (dst) more than 51% to 60% of points 3.5 (ddb) more than 60% to 70% of points 4.0 (db) more than 70% to 80% of points 4.5 (pdb) over 80% to 90% of points 5.0 (bdb) above 90% of points **The final course grade is the average of the class grades and the final test.**

9. **ADDITIONAL INFORMATION** *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

Course begins with classes conducted by assistants at the Department of Medical Informatics and Telemedicine (Litewska 16, 3rd floor). Dates of lectures and classes for particular groups are given in the timetable and the course schedule in the eWUM Platform. During the first class, students will receive detailed information on the e-course.

To access the eWUM Platform (e-learning.wum.edu.pl/en), students log in as for the SSL-WUM service:
Please enter your ID (s0+ album number): s0XXXXX and enter the same password used for the SSL-WUM service.
We kindly ask each student to check before class if they can log in to the eWUM Platform. In case of any problems, please get in touch with the WUM IT Department (it.wum.edu.pl).

The person responsible for the didactics: Joanna Michalik, MD; joanna.michalik@wum.edu.pl

Course Regulations:
1) Classes conducted by the Department of Medical Informatics and Telemedicine are compulsory, except for optional classes.
2) Students are entitled to one unexcused absence per class cycle. A larger number of unexcused absences results in failing to pass the course.
3) In the case of unexcused absence, the student cannot make up the classes.
4) In the case of absence explained by a medical exemption or activity in the University's governing bodies, the student must make up the classes in a form agreed with the teacher. The student must report to the teacher immediately after the reason for the absence ceases.
5) Being late for classes is treated as an absence.
6) Applications to re-grade classes are accepted during the first two weeks of the semester. Applications should include the syllabus of the course in which the credit or mark is to be transcribed.
7) Credit for a course is given according to the syllabus.

History of Medicine

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher educatio from 26th of July 2019)*	Medical sciences
Study Profile *(general academic / practical)*	General academic
Level of studies *(1st level /2nd level/ uniform MSc)*	Uniform MSc
Form of studies	Full time studies
Type of module / course *(obligatory / non-compulsory)*	Obligatory
Form of verification of learning outcomes *(exam / completion)*	Completion for grade
Educational Unit / Educational Units *(and address / addresses of unit / units)*	Department of History of Medicine 00-581 Warsaw 14a Litewska St. e-mail: historia-medycyny@wum.edu.pl www.historiamedycyny.wum.edu.pl Secretariat: 00-575 Warsaw 16 Litewska St., room 103 tel. + 48 22 116 92 60

Head of Educational Unit / Heads of Educational Units	Ewa Skrzypek, MD, PhD	
Course coordinator *(title, First Name, Last Name, contact)*	Ewa Skrzypek, MD, PhD	ewa.skrzypek@wum.edu.pl
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	Ewa Skrzypek, MD, PhD	ewa.skrzypek@wum.edu.pl
Teachers	Ewa Skrzypek, MD, PhD	ewa.skrzypek@wum.edu.pl

2. BASIC INFORMATION

Year and semester of studies	1st year, 2nd semester	**Number of ECTS credits**	1

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)	-	-
Seminar (S)	30	0.75
Classes (C)	-	-
e-learning (e-L)	-	-
Practical classes (PC)	-	-
Work placement (WP)	-	-
Unassisted student's work		
Preparation for classes and completions	10	0.25

3. COURSE OBJECTIVES

O1	Acquaintance with the development of medical sciences in the world and in Poland throughout history.
O2	Acquaintance with major medical discoveries and outstanding people in the history of medicine.
O3	Acquaintance with the history of selected medical equipment and hospital systems in Poland and in the world.
O4	Acquaintance with the history of selected diseases, *most famous patients* included.

O5	Presentation of the most important aspects of the history of medicine teaching in Poland and in the world.

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*

Code and number of effects of learning in accordance with standards of learning *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
D.W20	history of medicine, medicine of primitive peoples and old civilisations as well as characteristic features of medieval medicine
D.W21	features of modern times medicine and its major discoveries
D.W22	process of the development of new specialties in the field of scientific discipline – medical sciences and achievements of leading representatives of Polish and world medicine
Skills– Graduate* is able to:	
D.U16	show responsibility for raising their own qualifications and transferring knowledge to others

** In appendix to the Regulation of Minister of Science and Higher Education from 26th of July 2019 „graduate", not student is mentioned.*

5. ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*

Number of effect of learning	**Effects of learning in time**
Knowledge – Graduate knows and understands:	
K1	-
Skills– Graduate is able to:	
S1	-
Social Competencies – Graduate is ready for:	
SC1	-

6. CLASSES

Form of class	**Class contents**	**Effects of Learning**

Seminars	S1 – Seminar 1 – Why medical history?	D.W20, D.W21, D.W22 i D.U16
	S2 – Seminar 2 – Hippocrates – father of medicine	D.W20, D.W21, D.W22 i D.U16
	S3 – Seminar 3 – Outline of the history of anatomy and pathological anatomy / / pathomorphology	D.W20, D.W21, D.W22 i D.U16
	S4 - Seminar 4 – Outline of the history of histology and physiology	D.W20, D.W21, D.W22 i D.U16
	S5 – Seminar 5 – Outline of the history of microbiology, immunology and genetics	D.W20, D.W21, D.W22 i D.U16
	S6 – Seminar 6 – Outline of the history of surgery and internal medicine	D.W20, D.W21, D.W22 i D.U16
	S7 – Seminar 7 – Outline of the history of gynaecology, obstetrics and paediatrics	D.W20, D.W21, D.W22 i D.U16
	S8 – Seminar 8 – Outline of the history of neurology, neurosurgery and psychiatry	D.W20, D.W21, D.W22 i D.U16
	S9 – Seminar 9 – Who named it? The few medical eponyms among Polish women	D.W20, D.W21, D.W22 i D.U16
	S10 – Seminar 10 – Chronology of medical history. Summary of the course	D.W20, D.W21, D.W22 i D.U16
	S11 – Seminar 11 – Final test	D.W20, D.W21, D.W22 i D.U16

7. LITERATURE

Obligatory

1. All obligatory reading materials will be provided by the lecturer in .pdf files.

Supplementary

2. Ackerknecht E. H.: *A Short History of Medicine,* The Johns Hopkins University Press, Baltimore and London 1982.
3. Bostridge M.: *Florence Nightingale. The Women and Her Legend,* Penguin Books 2008.
4. Brown J.: *Influenza. The hundred-year hunt to cure the deadliest disease in history,* Touchstone 2018.
5. Bynum W., Bynum H. (eds.): *Great Discoveries in Medicine,* Thames & Hudson, London 2011.
6. Finn G. M. (ed.): *30-second medicine. The 50 crucial milestones, treatments and technologies in the history of health, each explained in half a minute,* Ivy Press, London 2017.
7. Hager Th.: *Ten Drugs. How Plants, Powders and Pills Have Shaped the History of Medicine,* Abrams Press, New York 2019.
8. Harper P. S.: *A Short History of Medical Genetics,* Oxford University Press, Oxford 2008.
9. Jauhar S.: *Heart. A History,* Oneworld, London 2019.
10. Jewell H.: *100 Nasty Women of History,* Hodder Stoughton, London 2017.
11. Lieberman J. A., Ogas O.: *Shrinks. The Untold History of Psychiatry,* Weidenfeld Nicolson, London 2016.
12. Martin S.: *A Short History of Disease. Plagues, Poxes and Civilisations,* Pocket Essentials, Gloucester 2015.
13. Mukherjee S.: *The Emperor of All Maladies. A Biography of Cancer,* Fourth Estate, London 2011.
14. Mukherjee S.: *The Gene. An Intimate History,* Vintage, London 2017.
15. Nuland Sh. B.: *Doctors. The Illustrated History of Medical Pioneers,* New York 2008.
16. Oldstone M. B. A.: *Viruses, Plagues and History. Past, Present and Future,* Oxford University Press, Oxford 2010.
17. Paul G.: *An Illustrated History of Medicine. A Medical Exploration in Fifty Objects,* Quad Books 2016.
18. Porter R. (ed.): *Cambridge Illustrated History. Medicine,* Cambridge University Press, Cambridge 2001.
19. Ribatti D.: *Milestones in Immunology. Based on Collected Papers,* Academic Press, Elsevier, London 2017.
20. Siemionow M.: *Face to Face. A Short History of Face Transplantation,* Springer, Chicago 2019.
21. Skrzypek E.: *Portraits of the Honorary Doctors,* Medical University of Warsaw, Warsaw 2016.

22. Snow S. J.: *Blessed Days of Anaesthesia. How Anaesthetics Changed the World?,* Oxford University Press, Oxford 2009.
23. Spearing S.: *A History of Women in Medicine. Cunning Women, Physicians, Witches,* Pen & Sword Books Ltd, Yorkshire – - Philadelphia 2019.
24. Strathern P.: *A Brief History of Medicine from Hippocrates to Gene Therapy,* Robinson, London 2005.
25. Wadman M.: *The Vaccine Race. How Scientists Used Human Cells to Combat Killer Viruses,* Black Swan, London 2018.
26. Youngson R., Schott I.: *A Brief History of Bad Medicine. True stories of weird medicine and dangerous doctors,* Robinson 2012.

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
D.W20, D.W21, D.W22 i D.U16	Continuous assessment in the course of classes; final, single-choice test	**Form of receiving credit – COMPLETION FOR GRADE** Final, single-choice test; active participation in classes; attendance **2.0 (failed) –** 0-10 pt **3.0 (satisfactory)** – 11-12 pt **3.5 (rather good)** – 13-14 pt **4.0 (good)** – 15-16 pt **4.5 (more than good)** – 17-18 pt **5.0 (very good)** – 19-20 pt

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

1. Classes are held according to the time-table provided by the Dean's Office.
2. Person responsible for didactics: Ewa Skrzypek, MD, PhD; e-mail: ewa.skrzypek@wum.edu.pl
3. No change is possible to the dean's group assignment.
4. The use of mobile phones and other recording equipment is forbidden.
5. Students cannot be late for classes.
6. Students are obliged to attend all seminars. In the case of any absence, even justified, Students are obliged to determine the way of making up for the absence with the Head of the Department.
7. Three or more absences exclude the possibility of getting a course credit.
8. A course credit is given on the basis of:
   a) class attendance,
   b) active participation in classes,
   c) positive grade from the final test.

LATIN IN MEDICINE

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher educatio from 26th of July 2019)*	Medical sciences
Study Profile *(general academic / practical)*	General academic
Level of studies *(1st level /2nd level/ uniform MSc)*	Uniform MSc
Form of studies	Full time studies
Type of module / course *(obligatory / non-compulsory)*	Obligatory
Form of verification of learning outcomes *(exam / completion)*	Credit
Educational Unit / Educational Units *(and address / addresses of unit / units)*	Centre for Foreign Languages The Didactic Center, 2a, Trojdena St., 02-109 Warsaw, tel. 22 5720863 e-mail: sjosekretariat@wum.edu.pl www.sjo.wum.edu.pl

Head of Educational Unit / Heads of Educational Units	Maciej Ganczar, PhD m.ganczar@wum.edu.pl
Course coordinator *(title, First Name, Last Name, contact)*	Beata Olędzka, PhD beata.oledzka@wum.edu.pl
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	Beata Olędzka, PhD beata.oledzka@wum.edu.pl
Teachers	Beata Olędzka, PhD beata.oledzka@wum.edu.pl

2. BASIC INFORMATION

Year and semester of studies	1st year, 1st/2nd semester	**Number of ECTS credits**	1.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)		
Seminar (S)		
Classes (C)	20	1.00
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions		

3. COURSE OBJECTIVES

O1	The student should be able to recognise and use Latin and Greek medical terms.
O2	The student should be able to make plural forms of Latin nouns.
O3	The student should be able to recognise and use Latin and Greek prefixes, suffixes and abbreviations.

4. **STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING** *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*	
Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to t Regulation of Minister of Science and Higher education from 26th o July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
D.W6	the significance of verbal and non-verbal communication in the process of communicating with the patient and the notion of trust in the interaction with the patient.
Skills– Graduate* is able to:	
D.U17	critically analyse literature (including literature in English) and is able to draw conclusions.

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. **ADDITIONAL EFFECTS OF LEARNING** *(non-compulsory)*	
Number of effect of learning	**Effects of learning i time**
Knowledge – Graduate knows and understands:	
K1	Latin and Greek medical terms.
K2	Latin phrases and abbreviations used in medical terminology.
Skills– Graduate is able to:	
S1	use Latin and Greek medical terms.
S2	use Latin phrases and abbreviations used in medical terminology.
Social Competencies – Graduate is ready for:	
SC1	continuing education and training shall.

6. CLASSES

Form of class	Class contents	Effects of Learning
Classes	C1 – Discussing the syllabus (the course content, learning outcomes and the methods of their verification; rules and regulations; credit receiving criteria). A brief history of Latin and an introduction to the language. C2 – Latin nouns and their basic forms. Grammatical gender. The human skeleton. C3 – Forms and functions of the possessive/genitive case. Names of muscles. C4 – Latin adjectives. Anatomical planes and directions. C5 –Plural forms of Latin nouns. The human body. C6 – Greek alphabet. Greek and Latin words present in European languages and medicine. C7 – Basic word structure. The most common suffixes - their origin and meanings. The names of inflammatory conditions and tumours. C8 – Prepositions. Common prepositional phrases. Greek and Latin prefixes. C9 – Elements of pharmacology. Prescription. Common abbreviations. C10 – The final test.	D.W6, D.U17, K1, K2, S1, S2, SC1

7. LITERATURE

Obligatory

Oledzka B., *Latin and Greek in medicine*, Warszawa 2022.

Supplementary

Olędzka B., *Latin in Medicine. Course for medical students,* Oficyna Wydawnicza WUM 2013.

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
D.W6, D.U17, K1 K2, S1, S2, SC1	Written test to verify the content presented during the classes in the form of tasks checking the specialized vocabulary. Short open answers. Passing score – 60%.	The scale of grades is as follows: 2.0 (failed) below 60% 3.0 (satisfactory) 60%-69,99% 3.5 (rather good) 70%-79,99% 4.0 (good) 80%-85,99% 4.5 (more than good) 86%-90,99% 5.0 (very good) 91%-100% To successfully complete the Latin in medicine course, each student needs to

		obtain a credit. To obtain a credit, a student is required to: **1. Attend all classes.** Each student is allowed to miss (2) two classes without having to give an excuse. If a student misses a class, she/he must catch up on the missed material. The student is obliged to make up for each absence by performing a special written/oral task assigned by the teacher. It is the student's responsibility to communicate with the class teacher as soon as possible about any attendance issues. A student who misses more than 2 classes will not be allowed to take the course test at the end of the academic year and will not receive course credits. **2. Come to classes punctually.** If a student arrives late three (3) times, it will constitute one absence (the teacher takes attendance at the very beginning of the class) it is the student's responsibility to ask the teacher to clear the absence off the student's record break just after the class. If a student is 15 or more minutes late, it will constitute one absence. **3. Have the book and complete exercises on their own in each class.** **4. Actively participate in each class.** **5. Complete all the assignments by the due date.** **6. Pass the final course test at the end of the semester – written test to verify the content presented during the classes in the form of tasks checking the specialized vocabulary. Short open answers. Passing score – 60%.** A student who fails the course test can sit a retake test twice. The first retake is held at least a week after the first attempt, the second and FINAL retake two weeks after the first retake or in the retake examination period. The final course grade which student receives is the score of the course test (Grade: 2 (fail) / 3 / 3.5 / 4 / 4.5 / 5 (very good)), or a grade 3 (satisfactory) for passing a retake test. A student who misses a scheduled test will not receive credit unless she/he presents

		a valid medical note within three days of the scheduled test date and makes up the missed test at the date set by the class teacher. A student who fails the second retake needs to repeat the course. If classes are moved online, they will take place according to a previously agreed schedule in the form of video meetings. It is obligatory that both the instructor and the students have their web cameras on. Having the camera off will count as an absence from class.

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

Person responsible for the teaching: Beata Olędzka, PhD, beata.oledzka@wum.edu.pl

Rules and regulations of the Foreign Language Department https://sjo.wum.edu.pl/content/regulamin-sjo

POLISH LANGUAGE

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher educatio from 26th of July 2019)*	**Medical sciences**
Study Profile *(general academic / practical)*	**General academic**
Level of studies *(1st level /2nd level/ uniform MSc)*	**Uniform**
Form of studies	**Full-time**
Type of module / course *(obligatory / non-compulsory)*	**Obligatory**
Form of verification of learning outcomes *(exam / completion)*	**Completion**
Educational Unit / Educational Units *(and address / addresses of unit / units)*	**Foreign Language Department** **The Didactic Center, ul. Trojdena 2a., 02-109 Warsaw** **sjosekretariat@wum.edu.pl, tel. 22 5720863** **www.sjo.wum.edu.pl/**

Head of Educational Unit / Heads of Educational Units	Maciej Ganczar, PhD
Course coordinator *(title, First Name, Last Name, contact)*	Anna Maczkowska, MA amaczkowska@wum.edu.pl
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	Anna Maczkowska, MA amaczkowska@wum.edu.pl
Teachers	Maciej Ganczar, PhD Beata Olędzka, PhD

2. BASIC INFORMATION

Year and semester of studies	1st, 1st and 2nd semester	**Number of ECTS credits**	5.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)		
Seminar (S)		
Classes (C)	70	3
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions	160	2

3. COURSE OBJECTIVES

O1	The aim of the 1st year Polish language course is to introduce Polish letters, sounds and basic language structures as well as vocabulary that will provide the students with foundations on which the II year basic medical Polish language competencies can be built.

4. **STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING** *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*	
Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
Skills– Graduate* is able to:	
D.U18	communicate with the patient in one of the foreign languages at B2+ level of the Common European Framework of Reference for Languages

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. **ADDITIONAL EFFECTS OF LEARNING** *(non-compulsory)*	
Number of effect of learning	**Effects of learning i time**
Knowledge – Graduate knows and understands:	
K1	
K2	
Skills– Graduate is able to:	
S1	recognise and write printed and handwritten letters
S2	recognise and pronounce Polish sounds
S3	inform and inquire about name, age, nationality, marital status, family members, occupation, place of residence, living conditions
S4	describe and inquire about daily activities and past events
S5	use selected expressions referring to time, place and quantity
Social Competencies – Graduate is ready for:	
SC1	continually broadening their knowledge
SC2	

6. CLASSES

Form of class	Class contents	Effects of Learning
D1	Discussing the syllabus (the course content, learning outcomes and the methods of their verification; rules and regulations; credit receiving criteria)	D.U18
D2	The Polish alphabet and sounds • Some useful phrases.	D.U18, S1, S2, S3, S4, S5
D3/4	Greetings and introductions • Cardinal numbers: 1-20 • Nouns: gender; the nominative singular • The demonstrative pronoun *to + jest* • The instrumental singular. Questions: *kto? co?*, *czy?* • *Kim pan/pani jest?* Pronunciation practice.	D.U18, S1, S2, S3, S4, S5
D5/6	Personal pronouns: the nominative singular • The formal and informal *you* • The verb *być*: present tense singular • Pronunciation practice	D.U18, S1, S2, S3, S4, S5
D7/8	Adjectives: gender; the nominative singular • Questions: *jaki, -a, -e* • The pronouns *ten, ta, to* • Cardinal numbers: 20-100 • Pronunciation practice.	D.U18, S1, S2, S3, S4, S5
D 9/10	Possessive pronouns: the nominative singular • Questions: czyj/a/e ? • Nouns and adjectives: the instrumental singular • Jobs • Nationalities • Countries • Questions: kim?, skąd?	D.U18, S1, S2, S3, S4, S5
D11/12	Nouns and adjectives: the accusative singular. *Proszę....* • Cardinal numbers: 100-1000 • Pronunciation practice. • The prepositions w and na to describe location • Questions: gdzie?	D.U18, S1, S2, S3, S4, S5
D13/14	Selected verbs followed by the accusative • Ordinal numbers: 1-12 • Telling the time • Questions: kogo?, co?, która (godzina)?, o której (godzinie)? • Pronunciation practice	D.U18, S1, S2, S3, S4, S5
D15/16	Progress test	D.U18, S1, S2, S3, S4, S5, SC1
D17/18	Nouns and adjectives: the genitive singular and plural • Negative sentences • Questions: kogo?, czego? • Pronunciation practice	D.U18, S1, S2, S3, S4, S5
D19/20	Verbs of motion: chodzić, iść, jechać • Means of transport • The prepositions do and na to describe direction • Questions: czym? • Pronunciation practice	D.U18, S1, S2, S3, S4, S5
D21/22	Adverbs of frequency (e.g. zawsze, często, czasem) • The times of day (e.g. rano, wieczorem, w nocy) • Description of daily activities • Pronunciation practice	D.U18, S1, S2, S3, S4, S5
D23/24	. Days of the week • The school timetable • Pronunciation practice • The past tense singular • Expressions of time: wczoraj, w zeszłym tygodniu/miesiącu/roku, … temu • Pronunciation practice	D.U18, S1, S2, S3, S4, S5
D25/26	The past tense •Family and hobbies • Living conditions • Pronunciation practice	D.U18, S1, S2, S3, S4, S5
D 27/28	Uses of the genitive with numbers, containers, adverbs of quantity • Time phrases with the preposition od (e.g. od dwóch godzin, od pięciu miesięcy, od roku) • Questions: od jak dawna/od kiedy? • Pronunciation practice • Pronunciation practice	D.U18, S1, S2, S3, S4, S5
D 29/30	The verbs musieć and móc (the present tense) • Expressions of time: co tydzień/dwa miesiące/pięć lat, etc.; raz, dwa, etc. razy dziennie, w tygodniu/miesiącu/roku • Pronunciation practice	D.U18, S1, S2, S3, S4, S5
D31/32	Course test revision	D.U18, S1, S2, S3, S4, S5

D33/34	The course written test • Course test revision.	D.U18, S1, S2, S3, S4, S5, SC1
D35	The course oral test.	D.U18, S1, S2, S3, S4, S5

7. LITERATURE

Obligatory

The title of the textbook will be given at the first class meeting.

Supplementary

Handouts prepared by the teachers.

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
D.U18, S1, S2, S3, S4, S5, SC1	Written test. Oral test.	To successfully complete the I year Polish language course and obtain credit, a student is required to: • *attend all classes* (min. 13 out of 15 in a semester) **A student who misses more than 2 classes per semester without a valid excuse will not be allowed to take the course tests and will not receive course credits.** Absences due to illness will be excused on presentation of a valid medical note within one week of return to study. In the case of two or more excused absences per semester the student must make up the missed classes. The student is obliged to make up for each absence by performing a special written/oral task assigned by the teacher. If a student misses a class, she/he must catch up on the missed material. It is the student's responsibility to communicate with the class teacher as soon as possible about any attendance issues. • *come to classes punctually* If a student arrives less than 15 minutes late three times per semester, it will count as one absence. Arriving to class more than 15 minutes late is counted as an absence. • *actively participate in each class* • *complete all the assignments by the due date* • *pass the progress test at the end of the winter semester and the course written and oral tests (covering the coursework of both the winter and summer semesters) at the end of the summer semester* A student who fails the course tests can take two resits. The final course grade a student receives is the average (arithmetic mean) of the written and oral test grades (grades of 2-5), or a grade of 3 for passing a resit. A minimum score of 60% must be obtained on each (written and oral) test to pass the course. A student who misses a scheduled test will receive a score of 0 unless she/he notifies the class teacher of the reason for her/his failure to take the test within three days of the scheduled test date and makes up the missed test if the reason is justified at the date set by the class teacher.

		A student who fails the second resit needs to repeat the course. Students who are 'independent users' of the Polish language (Level B2 as described in the Common European Framework) may be exempted from attending the first year Polish language course (and the second year Polish language course provided they achieve the required score) if they pass the B2 level examination administered by the University's Language Centre (Studium Języków Obcych) at the beginning of Year 1 Students interested in taking the exam should check with their class teacher for the exam date, time and location at the first class meeting. The scale of grades is as follows: 2.0 (failed) Below 60% 3.0 (satisfactory) 60-69% 3.5 (rather good) 70-79% 4.0 (good) 80-85% 4.5 (more than good) 86-90% 5.0 (very good) 91-100%

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

Rules and regulations of the Foreign Language Department https://sjo.wum.edu.pl/content/regulamin-sjo

Propaedeutics of molecular biology

1. IMPRINT	
Academic Year	2022/2023
Faculty	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher educatio from 26th of July 2019)*	**Medical science**
Study Profile *(general academic / practical)*	General academic
Level of studies *(1st level /2nd level/ uniform MSc)*	Uniform MSc
Form of studies	**Full time studies**
Type of module / course *(obligatory / non-compulsory)*	**Obligatory**
Form of verification of learning outcomes *(exam / completion)*	**Completion**
Educational Unit / Educational Units *(and address / addresses of unit / units)*	Department of General Biology and Parasitology, 5 Chałubińskiego Str., 02-004 Warsaw, tel. (22) 6212607, e-mail: biologia@wum.edu.pl

Head of Educational Unit / Heads of Educational Units	**Ph.D., Professor, Daniel Młocicki**
Course coordinator *(title, First Name, Last Name, contact)*	**Ph.D., Associate Professor, Monika Dybicz, monika.dybicz@wum.edu.pl**
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	**Monika Dybicz, monika.dybicz@wum.edu.pl**
Teachers	**Monika Dybicz, Aleksandra Sędzikowska**

2. BASIC INFORMATION

Year and semester of studies	1st year, 1st semester	**Number of ECTS credits**	2.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)		
Seminar (S)	5	0.30
Classes (C)	15	1.00
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions	10	0.70

3. COURSE OBJECTIVES

O1	The objective is to provide knowledge which enable medical students to have a broad view of molecular biology.
O2	The subject focuses on broad base of knowledge about the genome, molecular mechanisms of cell processes and expression of genetic information in humans.
O3	The performance of fundamental molecular techniques.

4. **STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING** *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*	
Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
B.W13	Performance of fundamental molecular techniques.
B.W14	Functions of the genome, transcriptome and basic methods used in their study, processes of DNA replication, repair and recombination, transcription, translation and DNA, RNA degradation, and concepts of gene expression regulation.
C.W10	Benefits and risks considering GMO presence in ecosystem.
Skills– Graduate* is able to:	
B.U8	Use basic techniques applied in molecular biology, e.g. PCR, RFLP, nucleic acids electrophoresis.
B.U9	Support simple measuring apparatus and assess the accuracy of measurements.
B.U13	Plan and perform simple scientific research and interpret their results and conclude.

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. **ADDITIONAL EFFECTS OF LEARNING** *(non-compulsory)*	
Number of effect of learning	**Effects of learning in time**
Knowledge – Graduate knows and understands:	
K1	Fundamental molecular techniques.
K2	The principles of conducting scientific, observational and experimental research and disseminating their results.
Skills– Graduate is able to:	
S1	Plan own educational activity and constantly improve education to update knowledge.
S2	Interpret the basic results of molecular studies and critically assesses their results in correlation with the possibility of a genetic disease in a patient.
S3	Communicate with colleagues in the team and share knowledge.

Social Competencies – Graduate is ready for:	
SC1	Continuous improve education connected with the expansive molecular biology development.
SC2	Use of objective sources of information.
SC3	Formulation conclusions from own measurements or observations.

6. CLASSES

Form of class	Class contents	Effects of Learning
Seminars	1. Human genome structure and function. 2. DNA and RNA structure and function. 3. DNA replication. 4. Transcription and translation, DNA repair and recombination, gene expression regulation. 5. Mutagenesis.	B.W13, B.W14
Classes	1. Basic rules of laboratory work. DNA extraction. 2. Continuation of DNA extraction. 3. *In vitro* DNA amplification (PCR and modifications). 4. RFLP and other molecular techniques. 5. Electrophoresis. 6. GMO (Genetically Modified Organisms). 7. Analysis of gene mutations determining the development.	B.W13, B.W14, C.W10

7. LITERATURE

Obligatory

1. Workbook: Molecular Biology - materials for 1st year students of English Division Medicine. Monika Dybicz, Aleksandra Sędzikowska. Oficyna Wydawnicza WUM, Warszawa, 2020.
2. Molecular Biology. Third Edition. David P. Clark, Nanette J. Pazdernik, Michelle R. McGehee. Elsevier, 2019.

Supplementary

1. Molecular Biology of the Gene. Seventh Edition. James. D. Watson, Tania A. Baker, Stephen P. Bell, Alexander Gann, Michael Levine, Richard Losick. Cold Spring Harbor Laboratory Press, 2013.

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
B.W13, B.W14, C.W10, B.U8, B.U9, B.U13	Multiple Choice Questions test	Over 55% correct answers
B.W13, B.W14, C.W10, B.U8, B.U9, B.U13	Completion of individual exercises based on the reports of the exercises in the workbook.	Correct record of results obtained during exercises and their proper interpretation.

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

1) Students are required to attend all classes.
2) Students should be prepared for the subject of the particular class.
3) Absence from class is justified on the basis of a medical certificate or certificate of a random accident. The class should be done with another group after prior agreement with the person responsible for the subject.
4) Classes start on time, being late is treated as an absence (students are not allowed to enter the room).
5) Students use the workbook "Molecular Biology - materials for 1st year students of English Division Medicine" during the practical classes. It is sent in pdf version to students before the beginning of the course.
6) Students should wear a lab coat and lab gloves.
7) Persons applying for transfer of the subject from previous years or from another university should write an application to the Head of the Department of General Biology and Parasitology and obtain permission of the Dean.

Propaedeutics of addiction medicine

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher educatio from 26th of July 2019)*	**Medical sciences**
Study Profile *(general academic / practical)*	*general academic*
Level of studies *(1st level /2nd level/ uniform MSc)*	*uniform MSc*
Form of studies	Full time studies
Type of module / course *(obligatory / non-compulsory)*	**Obligatory**
Form of verification of learning outcomes *(exam / completion)*	completion (credit)
Educational Unit / Educational Units *(and address / addresses of unit / units)*	II Department of Psychiatry, Medical University of Warsaw Prof. Andrzej Kokoszka, MD, PhD, 8 Kondratowicza St. (section G, 4 floor), phone 22 326 58 92**,** **!!!!!!Attention !!!!! seminary's and classes room – building H I-st floor Lecture's Room tel. 22/326-54-45 !!!!!!**

Head of Educational Unit / Heads of Educational Units	Prof dr hab Andrzej Kokoszka
Course coordinator *(title, First Name, Last Name, contact)*	**Joanna Mikuła MSc** **Joanna.mikuła@wum.edu.pl** **Phone +48 22 326 54 45**
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	**Joanna Mikuła MSc** **Joanna.mikuła@wum.edu.pl** **Phone +48 22 326 54 45**
Teachers	**Joanna Mikuła MSc, Anna Kułakowska MSc, Sasza Rychlica MSc, Joanna Emma Szczerba MSc,**

2. BASIC INFORMATION

Year and semester of studies	First year/summer semester	**Number of ECTS credits**	1.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)		
Seminar (S)	5	0,2
Classes (c)	10	0,3
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions	15	0,5

3. COURSE OBJECTIVES

O1	To acquire general knowledge in the area of addiction, i.e. diagnosis, psychopathology, treatment
O2	To acquire competence in contact and intervention for addicted patients

O3	To acquire knowledge in the area of psychological mechanisms and problems in the family of addicted patient

4. **STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING** *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*

Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
C.W45	symptoms of the most common acute poisonings, including alcohol and drugs and other psychoactive substances, heavy metals and selected groups drugs
D.W3.	mechanisms, goals and methods of treating addiction to psychoactive substances
D.W13.	forms of violence, models explaining domestic violence and violence in the chosen ones institutions, social conditions of various forms of violence and the role of a doctor in recognizing it
E.W17.5	the most common symptoms, principles of diagnosis and treatment mental disorders, including: 5) disorders related to the use of psychoactive substances
Skills– Graduate* is able to:	
E.U15.	recognize the condition after consuming alcohol, drugs and other stimulants
D.U10.	identify risk factors for the occurrence of violence, recognize violence and react accordingly
D.U2.	to perceive the signs of anti-health and self-destructive behavior and properly on not react;
E.U16.	plan diagnostic, therapeutic and prophylactic procedures

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. **ADDITIONAL EFFECTS OF LEARNING** *(non-compulsory)*

Number of effect of learning	**Effects of learning in time**
Knowledge – Graduate knows and understands:	

D.W1.	The social dimension of health and disease, the impact of the social environment (family, social networks) and social inequalities and socio-cultural differences on health, as well as the role of social stress in healthband self-destructive behaviors;
D.W15.	principles of motivating the patient to pro-health behavior and informing about an unfavorable prognosis
D.W5.	Rules and methods of communication with the patient and family, which are used to build an empathetic, trust-based relationship;
D.W6.	the importance of verbal and non-verbal communication in the communication process with the patient and the concept of trust in interaction with the patient
D.W11.	The problem of adapting the patient and family to the disease as a difficult situation and to events related to it, including dying and the family mourning process;
Skills– Graduate is able to:	
D.U4.	Build an atmosphere of trust during the entire diagnostic and treatment proces;
D.U5.	Conduct a conversation with an adult patient, child and family using the technique of active listening and expressing empathy and talk with the patient about his life situation
D.U11.	Use bsic psychological and supportive intervention,
D.U16.	demonstrate responsibility for upgrading and transferring knowledge of others
Social Competencies – Graduate is ready for:	
SC1	establishing and maintaining a deep and respectful contact with the patient, and showing understanding for worldview and cultural differences
SC3	observance of medical secrecy and patient rights

6. CLASSES

Form of class	Class contents	Effects of Learning
Seminar 1	Medical aspects of alcohol dependence 1. Neurobiological basis of addiction, the role of the reword system and nueurohormones 2. Motives for using alcohol 3. Definitions of terms: risky drinking, harmful drinking, alcohol addiction .4.Addiction diagnosis: diagnostic criteria based on the ICD 10. ICD 11 and DSM5 classification, alcohol withdrawal syndrome 5. Harms related to the use of alcohol: somatic, psychological, social	C.W45, D.W1., D.W3, E.W17.5 E.U15.
Seminar2	Addiction to drugs and new psychoactive substances 1. Risk factors for the development of addiction to substances: social, psychological, genetic, biological 2. The pathophysiology of addictions 3. Addiction diagnosis: diagnostic criteria based on the ICD 10, ICD11 and DSM 5 classification; models of harmful and risky use 4. Groups of psychoactive substances opioids, cannabinoids, hallucinogens, stimulants, benzodiazepines, new psychoactive substances ("legal highs") - action, withdrawal syndromes 5. Effects and health and social harms of the mentioned groups of substances	C.W45, D.W3, E.W17.5
Seminar 3	Addiction therapy	

	1. The concept of psychological mechanisms of addiction. 2. Basic assumptions of addiction therapy 3. Motivating to start therapy 4. Organization of the work of addiction treatment facilities 5. The role of self-supporting groups, including Alcoholics Anonymous and Narcotics Anonymous in the treatment of addicts D.W3, D.W6	
Seminar 4	A family with an addiction problem 1. Co-addiction 2. Roles of children in alcoholic family. 3. Adult Children of the Alcoholic 4. Domestic violence D.U2, D. U10, D.W11	
Seminar 5	Behavioral addictions 1.Definition of behavioral addictions 2.Diagnosing of behavioral addictions 3. Risk factors for the development of behavioral addictions 4. The most popular behavioral addictions: gambling; sex; overeating; addiction to new technologies; smartphone, internet, games, 5. Harm connected to behavioral addictions 6. Behavioral addiction treatment D.W15, D.W3, D.W6	
Classes 1,2	Methods of early detection and treatment of substances use disorders. Role of screening test. E.W17, E.U2,	
Classes 3,4	Diagnosing and motivating addicts to the therapy, short therapeutic interventions, motivational interview, referral to specialist therapeutic centers. Selection of the appropriate therapeutic model depending on the severity of the addiction problem in the patient D.W6, D.W15, D.U4, D.U5, D.U11, E.U15, E.U16	
Classes 5,6	Supporting family members suffering from addiction problems: adults and children. The problem of children of addicts - developmental and psychological consequences, adult children of alcoholics (ACA). D.U4, D.U5, D.U10, D.W11	
Classes 7,8	Cooperation with members of self-help movements, meeting with members of AA and NA	
Classes 9,10	Presentation of practical tools and methods of therapy of addiction. providing support to the victims of physical and mental violence. D.W3, E.U16	

7. LITERATURE

Obligatory

3. Chapter on “Substance use and addictive disorders” ss.616-893 in Kaplan H.I., Sadock B.J. Synopsis of psychiatry. Eleven edition. Walter Kluwer, Baltimore, 2015

Supplementary

4. The-Addiction-Recovery-Skills-Workbook- Suzette Glasner-Edwards
New Harbinger Publications, Oakland,2015

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
D.W13,D.W3, E.W17.5, C.W45, D.W11	Test	>60% correct answers Pass without grade
C.W45, D.W1,D.W3, D.W6, D.W15, E.W17.5, E.U15,	Oral check of preparation to each seminar	Active participation on seminars
D.W6, D.W15, D.U4, D.U5, D.U11, E.U15, E.W17.5, E.U2, E.U16	Oral check of preparation for each practical classes.	Active participation in practical classes

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

1. **Class attendance is obligatory**
2. **All absences should be made up for, and form and date of making up for them should be agreed with person responsible for teaching.**
3. **Active participation in the classes is a condition for obtaining credit.**

Syllabus for regulated fields of study:

Library Training

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	Medical science
Study Profile *(general academic / practical)*	General academic
Level of studies *(1st level /2nd level/ uniform MSc)*	Uniform MSc
Form of studies	Full time studies
Type of module / course *(obligatory / non-compulsory)*	Obligatory
Form of verification of learning outcomes *(exam / completion)*	credit
Educational Unit / Educational Units *(and address / addresses of unit / units)*	Main Library of the Medical University of Warsaw, Żwirki I Wigury 63, 02-091 Warszawa

Head of Educational Unit / Heads of Educational Units	mgr Irmina Utrata
Course coordinator *(title, First Name, Last Name, contact)*	mgr Irmina Utrata (22) 116 60 11, (22) 116 60 12 email: irmina.utrata@wum.edu.pl
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	mgr Irmina Utrata (22) 116 60 11, (22) 116 60 12 email: irmina.utrata@wum.edu.pl
Teachers	e-learning

2. BASIC INFORMATION

Year and semester of studies	Year I Semestr I	**Number of ECTS credits**	0.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)		
Seminar (S)	2 (e-learning)	
Classes (C)		
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions		

3. COURSE OBJECTIVES

O1	To prepare for independent and effective use of library services and resources
O2	To develop the skills of searching information about library resources by using library tools and resources
O3	To show the benefits of the use of library services and resources
04	To show the benefits of the lifelong learning and professional development

4. **STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING** *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*

Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
G.K1	Students have the knowledge about organisational structure of the Medical University of Warsaw (MUW) library system; Knows rules for how the MUW library system works
G.K2	Students have the knowledge about print and electronic library resources
G.K3	Students have the knowledge about using the library card and online catalogs
G.K4	Students know the library website – the main source of knowledge about the library services, resources and regulations
G.K5	Students know about the most useful scientific libraries in Warsaw, including medical libraries
Skills– Graduate* is able to:	
G.S1	Students identify their own information needs and knows how to meet them
G.S2	Students use resources and services offered by the MUW library system
G.S3	Students use the library tools and resources and are able to find professional information effectively
G.S4	Students use the Warsaw scientific libraries tools and resources

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. **ADDITIONAL EFFECTS OF LEARNING** *(non-compulsory)*

Number of effect of learning	**Effects of learning i time**
Knowledge – Graduate knows and understands:	
K1	
K2	
Skills– Graduate is able to:	
S1	

S2	
Social Competencies – Graduate is ready for:	
SC1	Students are independent in the effective use of library services and resources
SC2	Students are aware of the need of systematic update of their own knowledge by usage of the professional medical scientific information
SC3	Students are interested in a new library offer – library tools and resources

6. CLASSES

Form of class	Class contents	Effects of Learning
e-learning (e-L)	1. Organisational structure of the MUW library system 2. Selected libraries of Warsaw 3. Characteristic of the library resources and MUW library system 4. Characteristic of the basic library collections 5. Library services 6. Characteristic of the library catalogs and description of the library catalogs usage 7. Library website, where library resources and services are presented	G.K1, G.S2, SC1, SC3 G.K5, G.S4, SC3 G.K2, G.S1, G.S2, SC1, SC2 G.K2, G.S1,G.S2,SC1, SC2 G.K4,G.S1, G.S2, G.S3, S.C1- SC3 G.K3, G.S1, G.S3, SC1-SC3 G.K4,G.S1-G.S3,SC1-S.

7. LITERATURE

Obligatory

Library training online, available on the library website – http://biblioteka-szkolenia.wum.edu.pl/content/library-training-english-division

Supplementary

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
e.g. G.K1, G.S1, K1	*This field defines the methods used for grading students e.g. pop quiz, test, written report etc.*	*e.g. threshold number of points*
G.K1 -G.K5, G.S1-GS4, SC1-SC3	Online test	Giving correct answers 20 (67%) out of 30 questions 2.0(failed) 0% - 66% 3.0(satisfactory) 67% - 76% 3.5(rather good) 77% - 82% 4.0(good) 83% - 89%

		4.5(more than good) 90% - 96% 5.0(very good) 97% - 100%

9. **ADDITIONAL INFORMATION** *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

Physical Education

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher educatio from 26th of July 2019)*	Medical Science
Study Profile *(general academic / practical)*	General academic
Level of studies *(1st level /2nd level/ uniform MSc)*	Uniform MSc
Form of studies	Full-time studies
Type of module / course *(obligatory / non-compulsory)*	Obligatory
Form of verification of learning outcomes *(exam / completion)*	Credit
Educational Unit / Educational Units *(and address / addresses of unit / units)*	Department of Physical Education and Sport, 2c Trojdena Street, ph. 22 48 57 20 528 e-mail: studiumwfis@wum.edu.pl

Head of Educational Unit / Heads of Educational Units	mgr Jerzy Chrzanowski MSc
Course coordinator *(title, First Name, Last Name, contact)*	Mgr Michał Sieńko MSc (e-mail: michal.sienko@wum.edu.pl)
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	Mgr Michał Sieńko MSc
Teachers	Mgr Michał Sieńko MSc

2. BASIC INFORMATION

Year and semester of studies	Year 1, semester 1	**Number of ECTS credits**	0.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)		
Seminar (S)		
Classes (C)	60	
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions		

3. COURSE OBJECTIVES

O1	Significance of physical activity in human life.
O2	Aim and forms of physical activity.
O3	Physical activity and influence on the development of fitness.

4. **STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING** *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*	
Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to t Regulation of Minister of Science and Higher education from 26th July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
G.K1	Knows and understands the rules of team games.
G.K2	The role of physical activity in life.
Skills– Graduate* is able to:	
G.S1	To do a proper warm up before main training session.
G.S2	Referee matches of various team games.

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. **ADDITIONAL EFFECTS OF LEARNING** *(non-compulsory)*	
Number of effect of learning	**Effects of learning i time**
Knowledge – Graduate knows and understands:	
K1	rules of statics and biomechanics in relation to the human body during a specific physical activity
K2	
Skills– Graduate is able to:	
S1	use basic knowledge about your own physical limitations while performing the basic elements of the technique of selected sports and recreational disciplines, assess your own deficits and educational needs, and plan physical activity and its evaluation
S2	
Social Competencies – Graduate is ready for:	
SC1	promoting patterns of healthy life, recognizing health needs and planning activities in the field of prevention and promotion of "whole life sports"
SC2	

6. CLASSES

Form of class	Class contents	Effects of Learning
C1-C15 practical	In line with the sports program or recreational discipline chosen by the student, covering the development of motor skills: strength, speed, endurance, motor coordination, agility and flexibility. Learning about new and attractive forms of physical activity, including "sports of the whole life" (individual and team), ensuring active participation in physical culture. Movement as a factor in preventing disease and strengthening health.	A.W3 B.W7 B.W21 D.W15 G.W21 D.U2 G.U2

7. LITERATURE

Obligatory

In line with the selected sports program or recreational discipline - presented during the first class, available for viewing on the Study website www.swfis.wum.edu.pl in the Didactics tab.

Supplementary

In line with the selected sports program or recreational discipline - presented during the first class, available for viewing on the Study website www.swfis.wum.edu.pl in the Didactics tab.

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
A.W3 B.W7 B.W21 D.W15 G.W21	*- observation of the student's work* *- assessment of activity during classes* *- fitness tests*	*- regular attendance at classes (attendance 100%)* *- participation in fitness tests*

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

Sports and recreational sections of the AZS WUM University Club.
The regulations of classes and information on the possibility of making up for classes due to absences can be found on the website of Studium: studiumwfis@wum.edu.pl in the Didactic tab.

First Medical Aid with Elements of Nursing

1. IMPRINT	
Academic Year	2022/2023
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline *(in accord with appendix to the Regulation of Minister of Science and Higher educatio from 26th of July 2019)*	**Medical sciences**
Study Profile *(general academic / practical)*	General academic
Level of studies *(1st level /2nd level/ uniform MSc)*	Uniform MSc
Form of studies	**Full time studies**
Type of module / course *(obligatory / non-compulsory)*	**Obligatory**
Form of verification of learning outcomes *(exam / completion)*	**Credit (test with mark)**
Educational Unit / Educational Units *(and address / addresses of unit / units)*	**1st Department of Anesthesiology and Intensive Care WUM** **Lindleya 4 street, 02-005 Warsaw, Poland** **www.anestezjologia1@wum.edu.pl** **22 502 17 21** **2nd Department of Anesthesiology and Intensive Care WUM** **Banacha 1a street, 02-097 Warsaw, Poland** **Kait.csk@uckwum.pl**

	22 317 98 61 **Department of Pediatric Anesthesiology and Intensive Care WUM** **Zwirki I Wigury 63A street, 02-091 Warsaw, Poland** **Dz_anestezja@uckwum.edu.pl** **22 317 98 61**
Head of Educational Unit / Heads of Educational Units	dr hab. n. med. Janusz Trzebicki dr hab. n. med. Paweł Andruszkiewicz dr hab. n. med. Izabela Pągowska-Klimek
Course coordinator *(title, First Name, Last Name, contact)*	**Marek Janiak MD** **22 502 17 21** **Marek.janiak@wum.edu.pl**
Person responsible for syllabus *(First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)*	**Marek Janiak MD** **22 502 17 21** **Marek.janiak@wum.edu.pl**
Teachers	**1st Department of Anesthesiology and Intensive Care:** dr n. med. Beata Błaszczyk, dr n. med. Lidia Jureczko, dr n. med. Marcin Kołacz, dr n. med. Rafał Kowalczyk, dr n. med. Paweł Zatorski, lek. Jan Biławicz, lek. Marek Janiak, lek. Jan Pluta, lek. Piotr Mieszczański, lek. Małgorzata Gaworczyk, lek. Maja Mytyk, lek. Marcin Motyka **2nd Department of Anesthesiology and Intensive Care:** dr hab. n. med. Paweł Andruszkiewicz, dr n. med. Wojciech Romanik, lek. Anna Kosińska, lek. Maciej Michałowski, lek. Marta Dec, lek. Paula Dudek, lek. Jarosław Gadomski, lek. Michał Rykowski, lek. Orest Stach, lek. Aleksandra Święch-Zarzycka, lek. Dawid Tomasik, lek. Paulina Walczak-Wieteska, lek. Łukasz Wróblewski, lek. Mateusz Zawadka **Department of Pediatric Anesthesiology and Intensive Care:** dr hab. n. med. Izabela Pągowska-Klimek**,** dr n. med. Magdalena Mierzewska-Schmidt, lek. Artur Baranowski, lek. Katarzyna Mazur-Wołynko, lek. Piotr Sawicki, lek. Dariusz Skaba, lek. Maciej Kaszyński

2. BASIC INFORMATION

Year and semester of studies	I year, 1 semester	**Number of ECTS credits**	3.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)		
Seminar (S)	9	0.9
Classes (C)	36 (21 Simulation Centre)	0.9
e-learning (e-L)		
Practical classes (PC)		

Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions	30	1.2

3.	**COURSE OBJECTIVES**
O1	Resuscitation skills based on most recent guidelines
O2	Methods of assessing basic vital parameters In life-threathening conditions
O3	Recognition of life-threathening situations
O4	Basic nursing skills both in and out of hospital

4. **STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING** *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*

Code and number of effect of learning in accordance with standards of learning *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th July 2019)*	**Effects in time**
Knowledge – Graduate* knows and understands:	
F.W7.	applicable recommendations concerning resuscitation of newborns, children and adults;
C.W45.	Symptoms of the most common acute intoxications, including the intoxication with alcohol, drugs and other psychoactive substances, heavy metals and selected groups of medicines
Skills– Graduate* is able to:	
E.U7.	Evaluate the general condition, the state of consciousness and awareness of a patient
E.U14.	Recognize immediate threats to life
E.U15.	Recognize states under the influence of alcohol, drugs and other stimulants
E.U29.	Perform the basic medical procedures, including: 1) Body temperature measurement, pulse count and non-invasive blood pressure check, 2) Vital signs monitoring with aid of a pulse oximeter and cardiac monitor 3) Spirometry, oxygen therapy, manual ventilation and basics of mechanical ventilation 4) Oro- and nasopharyngeal airways device placement 5) Intravenous, intramuscular, subcutaneous injections, intravenous cannulation, venous blood sampling, blood culture taking, arterial and capillary blood sampling, 6) Nasal, pharyngeal and skin swab taking, 7) Male and female urinary bladder catheterization, nasogastric tube placement, stomach lavage, enema,

	8) Standard resting electrocardiogram with adequate interpretation, electrical cardioversion and defibrillation 9) Simple strip test and blood glucose check
E.U33.	Initiate the basic management in acute poisoning
E.U36.	Properly manage traumas (place a bandage, immobilize, manage and suture wounds)
F.U5.	Place a venous access
F.U8.	Immobilise a limb temporarily, choose the kind of immobilisation necessary to be applied in typical clinical cases and control the appropriate blood flow in the limb after an immobilising dressing is put on
F.U10.	Perform basic life resuscitation with automated external defibrillation devices and other resuscitation measures, as well as first aid
F.U21.	Assess an unconscious patient according to the international point scales

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*

Number of effect of learning	**Effects of learning i time**
Knowledge – Graduate knows and understands:	
K1	
K2	
Skills– Graduate is able to:	
S1	
S2	
Social Competencies – Graduate is ready for:	
SC1	
SC2	

6. CLASSES

Form of class	**Class contents**	**Effects of Learning**
Lectures (e-learning) asynchronic		
W1	Introduction to practical classes In the simulation centre 1) Blood vessel cannulation 2) Transport of patient In life-threathening condition 3) Introduction to simulation classes	E.U7.

W2	Unconscious patient	E.U7., F.U21.
W3	Basic Life Support (BLS) with the use of AED	F.W7.,F.U10.
W4	Pediatric BLS. Life-threatening conditions in children	F.W7., E.W6.
W5	First aid in poisoning	C.W45.
W6	Sudden cardiac arrest in special circumstances	F.W7.
W7	Cardiac and pulmonary life-threatening conditions	F.W7.
W8	Metabolic and neurological life-threatening conditions	F.W7.
W9	Monitoring	E.U29.
W10	History of resuscitation. Ethical and legal considerations with first aid	F.W7.
Seminars		
S1	Introduction: safety of first aid responder, infection risk. Chain of survival. ABCD examination. Contents of first aid kit	F.W7.
S2	Emergency medical services functioning, patient transport, diagnostic suites, emergency department, intensive care units (a walk In the hospital „the route of a trauma patient")	E.U36., F.U8., F.U9.
S3	Review with clinical cases, final test (15 questions)	F.W7., C.W45., E.U7.,E.U14., E.U15., E.U29., E.U33., E.U36., F.U5., F.U8., F.U9., F.U10., F.U21.
Practical classes	A student not preapared for these classes may not be allowed to attend	
C1	Adult and pediatric BLS + AED	F.W7.
C2	Practical skills assessment of BLS + AED. Management of trauma patient, life-threatening conditions	F.W7., F.U5., F.U8., F.U9., F.U10., E.U36.
C3	Nursing skills (subcutaneous, intramuscular, intravenous injections; fluid infusion; blood pressure measurement, pulse check; cardiac monitor connection, ECG taking)	E.U29., F.U5.

7. LITERATURE

Obligatory

2021 European Resuscitation Council (ERC) guidelines

Supplementary

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion

e.g. G.K1, G.S1, K1	*This field defines the methods used for grading students e.g. pop quiz, test, written report etc.*	*e.g. threshold number of points*
F.W7., C.W45., E.U7., E.U14., E.U15., E.U29., E.U33., E.U36., F.U5., F.U8, F.U9., F.U10., F.U21.	Presence during classes Practical skills assessment Theoretical knowledge test	Active participation in all seminars and practical classes. Independent management of cardiopulmonary resuscitation (BLS skills). Completion of single best answer multiple choice questions (MCQ) – 15 test questions.

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

During the practical classes and on contact with patients, we recommend medical clothing with short sleeves. Please do not wear private clothing. In case of using a white apron on personal clothing, the apron should be fastened. Long hair should be pinned back. It is necessary to change to theatre applicable footwear with adherence to safety rules. During practical classes in areas with patients – the rule "nothing below elbow" should be applied – that is watches, jewelry should be taken off. The "5 moments of hand hygiene" should be applied. Diagnostic medical gloves should be donned only after cleaning and/or disinfection of hands, directly before patient contact.

Prior to practical classes in the Medical Simulation Centre, it is mandatory to complete the following e-lectures
Before 1st class: W1, W2, W3, W4
Before 2nd class: W5, W6, W7, W8
Before 3rd class: W9, W10
Any student not prepared for practical classes may not be allowed to participate.

In case of absence during classes, it is mandatory to participate with another group. All issues related to the absence must be reported to the head of the department.

Before taking the final test, the student is obligated to receive a pass during the BLS classes.
A second attempt will be allowed during the make-up examination session.

The subject is finalized and signed in the Pediatric Department of Anesthesiology and Intensive Care MUW.
Any missed classes need to be consulted with the Head of the Pediatric Department of Anesthesiology and Intensive Care MUW or any person the Head deems responsible for ED students.

VOCATIONAL TRAINING:

Nursing – 4 weeks – 120h
1st year, 6-year program ED students
Faculty of Medicine

Upon completion of each year of their study students are required to take their summer holiday vocational training which is mandatory and is included in the Polish medical curriculum.

First year students undergo a one-month nursing training being attached to the nursing personnel as nursing assistants (auxiliaries at teaching hospitals of medical academies) universities either in Poland or selected foreign countries.
At a teaching hospital in Poland the head of the ward/department or an appointed instructor in charge provides a detailed programme as well as scheduled duties and maintains both supervision and assessment of student's performance.

The instructor in charge of first year students should be a fully qualified nurse who will supervise all nursing duties performed by students also those carried out with regard to patients in severe condition requiring intensive care.

Students are expected to have three to nine seven-hour duties on all shifts including up to three night shifts.

The main goals of the training are:

1. To acquaint students with a significant role of the nurse in the nursing and treatment of the patient,
2. To enable students to:

- acquire skills in performing ward routines e.g., taking temps and BP, making beds and changing bedclothes, maintaining patients' personal hygiene, offering bedpans and urinals, feeding patients, preparing drugs ordered for administration,
- learn the techniques of giving subcutaneous and intramuscular injections and instituting intravenous infusions.

Throughout the course of the training students are expected to make records of their activities and procedures performed. They are also assessed by the instructor in charge and are finally granted their passing mark by the head of the department. Certificates written in English or translated should be submitted to the Dean's Office of the Medical University of Warsaw by October 5th of the subsequent academic year.