



MEDICAL  
UNIVERSITY  
OF WARSAW



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

[http: // www.wum.edu.pl/](http://www.wum.edu.pl/)

**5<sup>th</sup> YEAR CURRICULUM**

**6-year program**

**Academic year: 2024/2025**

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## **AUTHORITIES OF MEDICAL UNIVERSITY OF WARSAW – TERM 2024-2028**

**Rector** – Professor Rafał Krenke, MD, PhD

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

**Vice Rector for Science and Technology Transfer** – Professor Marcin Sobczak, MD, PhD

**Vice Rector for Human Resources** – Professor Dorota Olczak-Kowalczyk, MD, PhD

**Vice Rector for Clinical Affairs and Investments** – Professor Agnieszka Cudnoch-Jędrzejewska, MD, PhD

**Vice Rector for International Relations, Development and Promotion** – Professor Michał Grąt, MD, PhD

## **FACULTY AUTHORITIES OF MEDICAL UNIVERSITY OF WARSAW – TERM: 2024-2028**

**Faculty of Medicine** – Professor Paweł Włodarski MD, PhD

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

## **DEAN’S OFFICE**

**Head of the Dean’s Office** – Krystyna Jarzab, MA

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

**Student Administration Officer (4th, 5th, 6th -Year)** – Dominka Renik, MA and Patrycja Karpińska, MA

## **STUDENT GOVERNMENT REPRESENTATIVES:**

**President** – Alexis Vourtsis

**Vice President, Head of Academic Affairs** – Alexander Steiner

**Vice President, Head of Student Affairs** – Sylvie Marie Régine Etienne

**Head of Communications and Administrative Management** – Maria Kienitz

**Social Media Coordinator** – Michail Koutentakis

**Events Coordinator** – Dyia Bachour

**Events Coordinator** – Divit Amarnani

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

## **CLASS REPRESENTATIVE:**

Aleksandra Frankowska – 5 year

## SCHEDULE – ACADEMIC YEAR 2024/2025

### 6-year program

#### **WINTER SEMESTER – 01.10.2024 – 16.02.2025**

STUDENT'S ACADEMIC CLASSES: 01.10.2024 – 22.12.2024

07.01.2025 – 26.01.2025

WINTER HOLIDAYS: 23.12.2024 – 06.01.2025

**EXAM SESSION: 27.01.2025 – 02.02.2025**

DAYS OFF BETWEEN SEMESTER: 03.02.2025 – 09.02.2025

RETAKE EXAM SESSION: 10.02.2025 – 16.02.2025

#### **SUMMER SEMESTER – 17.02.2025 – 30.09.2025**

STUDENT'S ACADEMIC CLASSES: 17.02.2025 – 18.04.2025

05.05.2025 – 15.06.2025

EASTER HOLIDAYS: 19.04.2025 – 27.04.2025

SPRING HOLIDAYS: 28.04.2025 – 04.05.2025

DAYS OFF BEFORE EXAM SESSION: 16.06.2025 – 22.06.2025

**EXAM SESSION: 23.06.2025 – 11.07.2025**

SUMMER HOLIDAYS: 14.07.2025 – 30.09.2025

RETAKE EXAM SESSION: 01.09.2025 – 14.09.2025

Curriculum of the 5<sup>th</sup> year of 6-year 2024/2025 ED program and the list of contents

5th year

page	subject	form of credit	semester	Total no of hours	including				ECTS
					lecture	seminar	class	practical	
5	Anesthesiology and Intensive Care	exam	1	60		20	40		3
12	Neurology	exam	1	100		30	70		5
18	Oncology	exam	1&2	60	20	20	20		3
24	Ortopedics and Traumatology	exam	1&2	60		20	40		3
29	Forensic Medicine with Elements of Law	exam	1&2	50		25	25		3
35	Ophtalmology	exam	1&2	50		10	40		2
40	Internal Medicine-Diabetology	credit	1&2	30	4	16	10		2
44	Internal Medicine-Gastroenterology	credit	1&2	30	4	16	10		2
49	Internal Medicine-Nephrology	credit	1	30	4	16	10		2
54	Internal Medicine-Endocrinology	credit	1&2	30	4	16	10		2
59	Neurosurgery	credit	2	30		10	20		2
64	Pediatrics - nephrology	credit	1&2	30	5	10	15		2
69	Pediatrics - hematology & oncology	credit	1&2	30	5	10	15		2
73	Obstetrics and Gynecology + Endocrinology	credit	2	140		20	120		9
78	Surgery	credit	1&2	100		35	65		7
101	Public health	credit	2	25		25			1
82	Rehabilitation	credit	2	30		10	20		1
86	Transplantology	credit	2	40	6	19	15		2
91	Palliative Medicine	credit	1	20		20			1
95	Neonatology	credit	1&2	15		5	10		1
106	Vocational Training - Emergency Medicine, Obstetrics & Gynecology	credit	2	140				140	4
	Optional course	credit	1&2	60		60			4
				1160	52	413	555	140	63



# Anesthesiology and Intensive Care

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Examination
<b>Educational Unit / Educational Units</b>	<p>---1<sup>st</sup> Department of Anesthesiology and Intensive Care (1MC1), Infant Jesus Teaching Hospital, Lindleya 4, 02-005 Warsaw <a href="http://www.anestezjologia1.wum.edu.pl">www.anestezjologia1.wum.edu.pl</a> 22 502 17 21</p> <p>--- 2<sup>nd</sup> Department of Anesthesiology and Intensive Care (1MC2), Public Central Teaching Hospital, Banacha 1a, 02-097 Warsaw, Poland <a href="mailto:kait.csk@uckwum.pl">kait.csk@uckwum.pl</a> +48 22 599 20 01</p> <p>---Department of Paediatric Anaesthesia (1MC3), Pediatric Teaching Clinical Hospital, 63a Żwirki i Wigury St., 22 317 98 61</p>
<b>Head of Educational Unit / Heads of Educational Units</b>	<p>dr hab. n. med. Janusz Trzebicki (1MC1)</p> <p>dr hab. n. med. Paweł Andruszkiewicz (1MC2)</p> <p>dr hab. n. med. Izabela Pągowska-Klimek (1MC3)</p>
<b>Course coordinator</b>	(1MC1) dr hab. n. med. Janusz Trzebicki, e-mail: <a href="mailto:janusz.trzebicki@wum.edu.pl">janusz.trzebicki@wum.edu.pl</a>
<b>Person responsible for syllabus</b>	<p>(1MC1) dr Marek Janiak MD, ph:+48 22 502 17 21; e-mail: <a href="mailto:marek.janiak@wum.edu.pl">marek.janiak@wum.edu.pl</a></p> <p>(1MC2 ) lek. Łukasz Wróblewski, e-mail: <a href="mailto:lukasz.wroblewski@wum.edu.pl">lukasz.wroblewski@wum.edu.pl</a></p> <p>(1MC3) dr Magdalena Mierzewska-Schmidt, e-mail: <a href="mailto:magdalena.mierzewska-schmidt@wum.edu.pl">magdalena.mierzewska-schmidt@wum.edu.pl</a></p>
<b>Teachers</b>	1st Department of Anesthesiology and Intensive Care:

	<p>dr hab. n. med. Janusz Trzebicki, Beata Błaszczuk MD PhD, Lidia Jureczko MD PhD, Marcin Kołacz MD PhD, Rafał Kowalczyk MD PhD, Jan Pluta MD PhD, Marek Janiak MD PhD, Romana Cal MD, Przemysław Bornaštajn MD</p> <p>2nd Department of Anesthesiology and Intensive Care: dr hab. n. med. Paweł Andruszkiewicz, Wojciech Romanik MD PhD, Anna Kosińska MD, Marta Dec MD, Paula Dudek MD, Jarosław Gadomski MD, Aleksandra Święch-Zarzycka MD, Dawid Tomasiak MD, Paulina Walczak-Wieteska MD, Łukasz Wróblewski MD, Mateusz Zawadka MD PhD, Aleksandra Zawiślak-Michalak MD, Agata Graczyńska MD</p> <p>Pediatric Department of Anesthesiology and Intensive Care: dr hab. n. med. Izabela Pągowska-Klimek, Magdalena Mierzewska-Schmidt MD PhD, Maciej Kaszyński MD PhD, Katarzyna Mazur-Wołynko MD, Dariusz Skaba MD</p>
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<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	V year, IX semester	<b>Number of ECTS credits</b>	3.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)			
Seminar (S)		20	0.40
Classes (C)		40	1.60
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		30	1.00

<b>3. COURSE OBJECTIVES</b>	
O1	Knowledge and practical skills in advanced cardiopulmonary resuscitation based on most recent guidelines
O2	Knowledge and practical skills in recognition and management of life threatening conditions
O3	Knowledge of pain management in diverse clinical scenarios
O4	Knowledge of pre-operative management of a surgical patient
O5	Knowledge of fundamentals of general and regional anesthesia
O6	Understanding perioperative monitoring
O7	Understanding indications for intensive care treatment
O8	Understanding of futile therapy in intensive care

O9	Knowledge and practical skills in management of respiratory failure
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#### 4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of the effect of learning in accordance with standards of learning	Effects in the field of:
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##### Knowledge – Graduate\* knows and understands:

E.W6.	the most common life threatening conditions in children and the management of these conditions
E.W29.	principles of pain management, including in cancer and chronic pain
E.W41.	capabilities and limitations of laboratory testing in emergencies
F.W4.	principles of perioperative safety, patient preparation for surgery, general and local anesthesia and controlled sedation
F.W5.	post-operative treatment with analgesic therapy and postoperative monitoring
F.W6.	indications for and principles of use of intensive care
F.W7.	applicable recommendations concerning resuscitation of newborns, children and adults
F.W15.	principles of suspecting and recognizing the brain death
C.W29.	definition and pathophysiology of shock, especially the differential diagnosis of shock and multiorgan failure
D.W5.	rules and methods of communication with patients and their family that contribute to development of an empathic relationship, based on trust
D.W14.	rules of promotion of health, its objectives and main directions of operation, with a special focus on the awareness of healthy lifestyle
G.W11.	principles of the medical privilege, keeping medical documentation and penal, civil and professional liability of a medical doctor

##### Skills– Graduate\* is able to:

E.U13.	assess and describe the patient's somatic and psychological states
E.U16.	plan diagnostic, therapeutic and preventive treatment
E.U18.	propose the individualization of applicable therapeutic guidelines and alternative treatment in the case of ineffectiveness or contraindications to standard therapy
E.U21	recognize the conditions in which life expectancy, functional patient state or preferences limit the treatment according to the guidelines for a given disease

E.U24.	interpret laboratory test results with the identification of reasons for deviation
E.U25.	use feeding protocols (enteral and parenteral)
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 the aid of a pulse oximeter and cardiac monitor, 3) spirometry, oxygen therapy, manual ventilation and basics of mechanical ventilation 4) oro- and nasopharyngeal airway 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 catheterisation, nasogastric tube placement, stomach lavage, enema, 8) standard resting electrocardiogram with adequate interpretation, electrical cardioversion and defibrillation, simple strip test and blood glucose check.
E.U32.	plan specialist consultations
E.U33.	initiate the basic management in acute poisoning
E.U34.	monitor the patient's condition in acute chemical or medication poisoning
E.U37.	properly manage traumas (place a bandage, immobilize, manage and suture wounds)
E.U38.	keep a patient's medical records.
F.U5	place a venous access
F.U10	perform basic life resuscitation with automated external defibrillation devices and other resuscitation measures, as well as first aid
F.U11	perform resuscitation according to the latest advanced guidelines
F.U12	monitor perioperative care with the aid of basic vital signs;
F.U21	assess an unconscious patient according to the international point scales
D.U1	include patient's subjective needs and expectations resulting from the socio-cultural background in the entire therapeutic process
D.U5	conduct an interview with an adult patient, a child and the family with empathy and listeni actively; is able to discuss the patient's life situation
D.U13	respect ethical standards in professional activities
D.U15	observe patient rights
D.U16	assume the responsibility for improving his/her qualifications and teaching other people
D.U17	critically analyze the medical bibliography (also in English) and draw conclusions

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



<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
<b>Knowledge – Graduate knows and understands:</b>	
<b>Skills– Graduate is able to:</b>	
<b>Social Competencies – Graduate is ready for:</b>	
K1	developing and maintaining a deep and respectful contact with a patient, demonstrating understanding of differences in belief and culture
K2	being guided by the patients wellbeing, placing it first line
K3	keeping doctor-patient confidentiality and patient’s rights
K4	making decisions for patients based on ethical principles, with the understanding of their social background and limitations resulting from the disease
K5	observing and identifying own limitations and assessing personal deficits and educational needs
K6	propagating health behaviours
K7	using objective sources of information
K8	formulating conclusions based on personal measurements and observations
K9	introducing rules of professional relations and teamwork among specialists, inclusive of representatives from other medical specialties, also in a multicultural and multinational environment
K10	formulating opinions regarding different aspects of professional activity
K11	taking responsibility for decisions made during professional activities, inclusive of self and others safety

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
Seminar		
S1	Patient preparation for surgery and general anesthesia, Post-operative patient monitoring	E.W41, F.W4, F.W5, E.U13, E.U16, E.U32, F.U12, D.W5, D.W14, D.U1, D.U5, D.U13, D.U14, D.U15, D.U16, D.U17, G.W11
S2	Safe use of local anesthetics. Regional anesthesia: peripheral nerve blockade.	F.W4, E.U32
S3	Regional anesthesia: central nerve blockade	F.W4, E.U32
S4	Postoperative pain management	E.W29
S5	Principles of intensive care: indications. Futile therapy.	F.W6, F.W15, E.U18, E.U21, E.U24, E.U25

S6	Respiratory failure - management	F.W6
S7	Shock – management, intravascular access	C.W28
S8	Management of life-threatening conditions in children	E.W6
Practical classes		
C1	ALS (Advanced Life Support) – practical skills/Simulation Center	F.W7
C2	Management of life threatening conditions. Point of care ultrasonography in anesthesiology, intensive care and emergency states	E.U29, E.U33, E.U34, E.U37, F.U5, F.U10, F.U11, F.U21
C5 C6 C7 C8	Practical classes in operating theatres	F.W4, F.U5
C9	Practical classes in the postoperative and recovery units	E.U38, F.U5, F.U12
C10	Practical classes in the intensive care unit	E.U38, E.U16, E.U24 K1-K11

## 7. LITERATURE

### Obligatory

1. European Resuscitation Council (ERC) 2021 Advanced Life Support (ALS) guidelines [www.erc.edu](http://www.erc.edu)
2. 2011 and 2022 European Society of Anesthesiology and Intensive Care (ESAIC) perioperative fasting in adults and children [https://journals.lww.com/ejanaesthesiology/Fulltext/2011/08000/Perioperative\\_fasting\\_in\\_adults\\_and\\_children\\_.4.aspx](https://journals.lww.com/ejanaesthesiology/Fulltext/2011/08000/Perioperative_fasting_in_adults_and_children_.4.aspx) [https://www.esaic.org/uploads/2022/01/pre\\_operative\\_fasting\\_in\\_children\\_a\\_guidelin.pdf](https://www.esaic.org/uploads/2022/01/pre_operative_fasting_in_children_a_guidelin.pdf)
3. 2022 Joint ESAIC/ESRA guidelines on regional anaesthesia in patients on antithrombotic drugs: [https://www.esaic.org/uploads/2022/01/regional\\_anaesthesia\\_in\\_patients\\_on\\_antithrom.pdf](https://www.esaic.org/uploads/2022/01/regional_anaesthesia_in_patients_on_antithrom.pdf)
4. Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2021: <https://www.sccm.org/Clinical-Resources/Guidelines/Guidelines/Surviving-Sepsis-Guidelines-2021>
5. Acute Respiratory Distress Syndrome: The Berlin Definition <https://jamanetwork.com/journals/jama/article-abstract/1160659>
6. “Anesthesia Student Survival Guide” Jesse M Ehrenfeld; Scott Segal; Richard D Urman 2010
7. “Basic Clinical Anesthesia” Paul K Sikka; Shawn T Beaman; James A Street 2015
8. Morgan & Mikhail’s Clinical Anesthesiology, 7e (available via [www.biblioteka.wum.edu.pl](http://www.biblioteka.wum.edu.pl))

### Supplementary

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
E.W6 E.W29 E.W41 F.W4 F.W5 F.W6 F.W7 F.W15 C.W29 E.U13 E.U16 E.U18 E.U21 E.U24 E.U25 E.U29 E.U32 E.U33 E.U34 E.U37 E.U38 F.U5 F.U10 F.U11 F.U12 F.U21 D.W5 D.W14 G.W11 D.U1 D.U5 D.U13 D.U14 D.U15 D.U16 D.U17 K1-11	Student presence card – activity and presence will be noted in the card during classes. Short entry tests based on materials provided prior to class before each seminar may be done (10 questions)	Acquiring knowledge from lectures in given anesthesia department. Presence during classes and active participation confirmed by educator. Pass of short test with at least 7 correct answers; in case of failure – repeat oral colloquium with assistant until pass.
E.W6 E.W29 E.W41 F.W4 F.W5 F.W6 F.W7 F.W15 C.W29 E.U13 E.U16 E.U18 E.U21 E.U24 E.U25 E.U29 E.U32 E.U33 E.U34	Practical assessment by assistant during cardiopulmonary resuscitation	Competence in advanced life support. Pass of entry test with at least 7 correct answers. In case of failure – a repeat oral

E.U37 E.U38 F.U5 F.U10 F.U11 F.U12 F.U21 D.W5 D.W14 G.W11 D.U1 D.U5 D.U13 D.U14 D.U15 D.U16 D.U17 K1-11	Entry test before simulation center class may be done (10 questions)	colloquium with assistant/lecturer until pass.
E.W6 E.W29 E.W41 F.W4 F.W5 F.W6 F.W7 F.W15 C.W29 E.U13 E.U16 E.U18 E.U21 E.U24 E.U25 E.U29 E.U32 E.U33 E.U34 E.U37 E.U38 F.U5 F.U10 F.U11 F.U12 F.U21 D.W5 D.W14 G.W11 D.U1 D.U5 D.U13 D.U14 D.U15 D.U16 D.U17 K1-11	Final examination – test consisting of true/false questions in computer lab or paper based	RESULTS: 2.0 (fail) <70% correct 3.0 (satisfactory) 70-73% 3.5 (rather good) 74-76% 4.0 (good) 77-79% 4.5 (more than good) 80-82% 5.0 (very good) 83+%

## 9. ADDITIONAL INFORMATION

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.

Students unprepared for classes may not be allowed to attend: mini tests may be conducted.

PUNCTUALITY is mandatory.

Detailed information on the conduct and plans of the classes will be provided in electronic form or during the first class in the assigned department.

Groups are divided to be under the primary care of the 1<sup>st</sup> Department (Lindleya) or the 2<sup>nd</sup> Department (Banacha); please check the master program provided by the deanery which group is allocated to a given department; group swaps are not allowed after the start of the classes and students will be allowed to change Departments only in exceptionally rare cases.

Access to materials will be made available via the electronic platform [www.e-learning.wum.edu.pl](http://www.e-learning.wum.edu.pl)

Login details are the same as for the SSL-WUM platform

Identifier: (s0 + album number): s0XXXXX

Password: the same as for SSL-WUM

Additional materials necessary for seminars, practical classes and entry tests will be made available electronically.

A student presence card is mandatory and must be submitted to the department secretariat. Presence during all classes must be noted in the student card and at the end of the classes must be brought back to the secretariat. All issues related to the absence must be reported to the Head of the given department or to the course coordinator, Marek Janiak/Łukasz Wróblewski.

Form of credit: written final test and practical skills assessment in ALS. In cases of exam failure, a second term will be given in the form of an oral exam arranged with an assistant from the given Anesthesiology Department.

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### ATTENTION

The final 10 minutes of the last class of the block/semester/year should be allotted for students to fill out the Survey of Evaluation of Classes and Academic Teachers



## Neurology

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes (exam / completion)</b>	exam
<b>Educational Unit / Educational Units (and address / addresses of unit / units)</b>	Department of Neurology, Medical University of Warsaw, Banacha Str. 1a , 02-097 Warsaw phone 225882858, fax 22-599-18-57, e-mail: neurosek@wum.edu.pl
<b>Head of Educational Unit / Heads of Educational Units</b>	Prof.dr hab.n.med. Anna Kostera-Pruszczyk
<b>Course coordinator (title, First Name, Last Name, contact)</b>	Dr n. med. Aleksandra Podlecka-Piętowska <a href="mailto:apodlecka@wum.edu.pl">apodlecka@wum.edu.pl</a> Dr n.med. Marta Lipowska <a href="mailto:marta.lipowska@wum.edu.pl">marta.lipowska@wum.edu.pl</a>
<b>Person responsible for syllabus (First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)</b>	Prof. dr hab. n.med. Anna Kostera-Pruszczyk <a href="mailto:anna.kostera-pruszczyk@wum.edu.pl">anna.kostera-pruszczyk@wum.edu.pl</a> Dr n.med. Aleksandra Podlecka-Piętowska <a href="mailto:apodlecka@wum.edu.pl">apodlecka@wum.edu.pl</a>
<b>Teachers</b>	Prof. dr hab. n.med. Anna Kostera-Pruszczyk Prof. dr hab. n.med. Beata Zakrzewska-Pniewska Prof. dr hab. n.med. Piotr Janik Prof. dr hab. n.med. Magdalena Kuźma-Kozakiewicz Dr hab. n.med. Monika Nojszewska

	Dr hab. n.med. Anna Potulska-Chromik Dr n.med. Antoni Ferens Lek. Anna Frączek Dr hab. n.med. Aleksandra Golenia Dr n.med. Biruta Kierdaszuk Dr n.med. Marta Lipowska Dr n.med. Anna Łusakowska Dr n.med. Andrzej Opuchlik Dr n.med. Anna Macias Dr n.med. Aleksandra Podlecka-Piętowska Dr n.med. Ewa Sobieszczuk Dr n.med. Piotr Szczudlik Dr n.med. Justyna Kaczyńska Lek. Cecylia Rajczewska-Oleszkiewicz Lek. Judyta Barańska Lek. Krzysztof Nieporęcki
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<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	5 year, winter semester	<b>Number of ECTS credits</b>	5.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)			
Seminar (S)		30	1,5
Classes (C)		70	3
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		15	0.5

<b>3. COURSE OBJECTIVES</b>	
O1	etiology and symptoms of neurologic diseases which they can deal with during their work as general practitioner (family doctor)
O2	diagnostic procedures and tests used in neurology and interpretation of their results
O3	management of the most common neurological diseases

**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*)

<b>Code and number of the effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> ( <i>in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019</i> )
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**Knowledge – Graduate\* knows and understands:**

G.K1/ E.W1	environmental and epidemiological conditions of the most common diseases
G.K2/ E.W13	basic syndromes of neurological symptoms
G.K3/ E.W14	causes, symptoms, principles of diagnosis and therapeutic management in the most common diseases of the nervous system, including: 1) headaches: migraine, tension headache, headache syndromes and V nerve neuralgia, 2) cerebral vascular diseases, especially stroke, 3) epilepsy, 4) infections of the nervous system, in particular meningitis, Lyme disease, herpetic encephalitis, neurotransmission diseases, 5) dementia, in particular Alzheimer's disease, frontal dementia, vascular dementia and other dementia syndromes, 6) diseases of the basal ganglia, in particular Parkinson's disease, 7) demyelinating diseases, in particular multiple sclerosis, 8) diseases of the neuromuscular system, in particular amyotrophic lateral sclerosis and sciatica, 9) craniocerebral injuries, in particular concussion;
G.K4/ E.W42	indications for the implementation of monitored therapy

**Skills– Graduate\* is able to:**

G.S1/ E.U1	conduct a medical interview with an adult patient;
G.S2/ E.U3	conduct a complete and targeted physical examination of an adult patient;
G.S3/E.U7	assess the general condition, state of consciousness and awareness of the patient;
G.S4/ E.U12	carry out differential diagnosis of the most common diseases of adults and children;
G.S5/ E.U14	recognize life-threatening states;
G.S6/ E.U15	recognize the condition after consuming alcohol, drugs and other stimulants;
G.S1/ E.U16	plan diagnostic, therapeutic and prophylactic procedures;
G.S7/ E.U20	qualify the patient for home and hospital treatment;
G.S8/ E.U21	identify conditions in which the life expectancy, functional state or patient preferences limit the management of the guidelines defined for the given disease
G.S9/ E.U24	interpret the results of laboratory tests and identify the causes of deviations from the norm
G.S10/ E.U30, 5	assist in the following medical procedures and procedures: a lumbar puncture

\* 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*)

<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
<b>Knowledge – Graduate knows and understands:</b>	
K1	
K2	
<b>Skills– Graduate is able to:</b>	
S1	
S2	
<b>Social Competencies – Graduate is ready for:</b>	
SC1	
SC2	

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
SEMINARS	<p>They discuss the symptoms, diagnosis and treatment of the most common neurological diseases and syndromes.</p> <p>The topics of the seminars include:</p> <ol style="list-style-type: none"> <li>1. Anatomy and physiology of the Central and Peripheral Nervous System- repetition</li> <li>2. Hemorrhagic stroke and subarachnoid hemorrhage</li> <li>3. Ischemic stroke</li> <li>4. Management of ischemic stroke</li> <li>5. Motor neuron disease and other spinal cord diseases</li> <li>6. Skeletal muscle diseases</li> <li>7. Myasthenia and disorders of the neuromuscular junction</li> <li>8. Peripheral neuropathies</li> <li>9. Demyelinating diseases</li> <li>10. Back pain - diagnosis and management</li> <li>11. Vertigo- diagnosis and management</li> <li>12. Headache - diagnosis and management</li> <li>13. Neoplastic tumors of the nervous system</li> <li>14. Epilepsy</li> <li>15. Traumatic lesion of the nervous system</li> <li>16. Movement disorders</li> <li>17. Dementias</li> <li>18. Neurological signs and symptoms in systemic diseases and general medicine</li> <li>19. Brain death and neurocritical care</li> </ol>	G.K1, G.K2., G.K3, G.K4
Practical training	<ol style="list-style-type: none"> <li>1. teaching physical neurological examination,</li> <li>2. interpretation of diagnostic tests and algorithms of diagnostic procedure,</li> <li>3. demonstration of patients with selected neurological diseases</li> <li>4. demonstration of basic additional tests used in neurological diagnostics: Doppler ultrasound examination, neuroimages, EMG, EEG</li> </ol>	G.S1, G.S2, G.S3, G.S4, G.S5, G.S6, G.S7, G.S8, G.S9, G.S10,

## 7. LITERATURE

### Obligatory

“Lange Clinical Neurology”, Greenberg D, Aminoff M, Simon R. edition 11, Mc Graw Hill Education 2020

The manual has not been updated since 2020. In the event of discrepancies, the information from the annually updated seminars shall apply.

### Supplementary

1. “Neurology and Neurosurgery Illustrated” K.W.Lindsay, I.Bone. Churchill Livingstone 2010
2. “Clinical neuroanatomy” R.S Snell, 8 edition. Lippincott Williams & Wilkins, a Wolters-Kluwer.2022
3. “Mosby’s Color Atlas and Text of Neurology”. Perkin DG; Times Mirrors Int. Publishers Ltd 1998

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
G.S2	Practical skills examination	Positive evaluation of the teaching assistant
G.K1, G.K2., G.K3, G.K4	Final colloquium ( 50 MCQ and open questions).	threshold number of points - 30 good answers
G.K1, G.K2., G.K3, G.K4 G.S1, G.S3, G.S4, G.S5, G.S6, G.S7, G.S8, G.S9, G.S10,	Final exam in winter exam session ( 100 MCQ)	exam threshold = 56 good answers  thresholds for individual grades: <ul style="list-style-type: none"><li>• grade 3.0 = 56-64 good answers</li><li>• grade 3.5 = 65-73</li><li>• grade 4.0 = 74-82</li><li>• grade 4.5 = 83-91</li><li>• grade 5.0 = 92-100</li></ul>

## 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*)

- Duration of the neurology course: 3 weeks (from Monday to Friday)
- During the course it is possible to be absent only once .The student makes up for this absence in the form determined by the assistant (presence on duty, writing a paper etc.)
- If a student has 2-3 absences, he/she must make up for them with another group or in the form determined by the assistant. Only then, the student can take the colloquium, which he/she passes with another group.
- More than 3 absences result in failure to complete a block of classes.

### SEMINARS

The seminars are conducted live by assistants. Seminar outlines and additional self-study materials are available on the e-learning platform.

### PRACTICAL TRAINING

The first week of classes is devoted to teaching neurological examination and demonstrations of clinical cases. In the following weeks, students are divided into subgroups and examine patients under the supervision of designated assistants. In the last week of classes, a practical test of neurological examination skills is carried out.

### PRELIMINARY TEST



The preliminary test takes place on the first day of the course. The test consists of 5 questions and covers the basic knowledge of the anatomy and physiology of the nervous system. The test questions are on the web site: [neurologia1.wum.edu.pl](http://neurologia1.wum.edu.pl)  
In the event of a negative result of the test, the student must take it again at the end of the first week of classes.

#### PRACTICAL SKILLS EXAMINATION

In the last week of the classes, students are checked for their practical skills in neurological examination

#### FINAL COLLOQUIUM

On the last day of the course students take the final colloquium consisting of 50 open and multiple choice questions. At least 30 correct answers are required to pass the test. The colloquium can be re-passed only twice. If the results of the repetitive tests are negative, the student must repeat the entire course of neurology.

To credit the neurology course, the student must be present at all classes (with the exception of 1 allowed absence) and have at least a satisfactory (3.0) grade with:

- preliminary test
- practical skills examination
- final colloquium

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#### **ATTENTION**

The final 10 minutes of the last class of the block/semester/year should be allotted for students to fill out the Survey of Evaluation of Classes and Academic Teachers



## Oncology

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module/ course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Exam
<b>Educational Unit / Educational Units</b>	<p>- Department of Oncology (<b>2W11</b>), Medical University of Warsaw 1a Banacha Str., 02-097 Warsaw phone 22-599 13 91, fax 22-599-13-90, e-mail: <a href="mailto:onkologia.csk@uckwum.pl">onkologia.csk@uckwum.pl</a></p> <p>- Department of Hematology, Oncology and Internal Medicine (<b>1WP</b>), Medical University of Warsaw, 1a Banacha Str., 02-097 Warsaw phone 22-599 28 18, fax 22-599-14-18, e-mail: <a href="mailto:hematologia@wum.edu.pl">hematologia@wum.edu.pl</a></p>

<b>Head of Educational Unit / Heads of Educational Units</b>	Prof. Rafał Stec, M.D, PhD (2W11) Prof. Grzegorz W. Basak, M.D., PhD (1WP)
<b>Course coordinator</b>	Leszek Kraj, M.D, PhD (2W11), e-mail: leszek.kraj@wum.edu.pl
<b>Person responsible for syllabus</b>	Leszek Kraj, M.D, PhD (2W11), e-mail: leszek.kraj@wum.edu.pl
<b>Teachers</b>	Rafał Stec, M.D, PhD, Leszek Kraj M.D. PhD, , Leszek Kraj M.D. PhD, Rafał Machowicz M.D. Ph.D., Prof Wiesław Wiktor Jędrzejczak M.D, Ph.D, Anna Waszczuk M.D. Ph.D., Krzysztof Woźniak, M.D., Małgorzata Osmola M.D., Aleksandra Semeniuk-Wojtaś M.D., PhD., Maciej Gryziak M.D., Martyna Tyszka, M.D.

## 2. BASIC INFORMATION

<b>Year and semester of studies</b>	5 year, 9 & 10 semester	<b>Number of ECTS credits</b>	3.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)		20	1.0
Seminar (S)		20	1.0
Classes (C)		20	1.0
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions			

## 3. COURSE OBJECTIVES

O1	Diagnostic tests in oncology
O2	Epidemiology of cancer
O3	Contemporary cancer therapy
O4	Palliative medicine
O5	Pain care in cancer therapy
O6	The most common cancers - principles of diagnostic and therapeutic procedures

**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*)

<b>Code and number of the effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> ( <i>in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019</i> )
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**Knowledge – Graduate\* knows and understands:**

E.W23	The student knows environmental and epidemiological conditions of the most common human cancers
E.W24	The student knows the basics of early detection of tumors and oncology screening principles
E.W25	The student knows the possibilities of contemporary cancer therapy (including multimodal therapy), perspectives of cell and gene therapies and their undesirable effects
E.W26.	The student knows the principles of combined therapies in oncology, algorithms of diagnostic and therapeutic procedures in the most common human cancers
E.W27.	The student knows and understands the causes, symptoms, principles of diagnosis and therapeutic treatment in the most common problems of palliative medicine, including: a. symptomatic treatment of the most common somatic symptoms. b. Proceedings in tumor cachexia and in the prevention and treatment of pressure ulcers
E.W28	The student knows the rules of palliative treatment with the patient in the terminal state
E.W29	The student knows the principles of pain treatment, including cancer and chronic pain

**Skills– Graduate\* is able to:**

E.U1	The student conducts a medical interview with an adult patient
E.U16	The student plans diagnostic, therapeutic and prophylactic procedures
E.U18	The student proposes to individualize the existing therapeutic guidelines and other methods of treatment for ineffectiveness or contraindications to standard therapy
E.U21	The student defines the states in which the duration of life, functional status or preferences of the patient limit the treatment in accordance with the guidelines laid down for a given disease
E.U24	The student interprets laboratory tests and identifies the causes of deviations
E.U30	The student assists in carrying out the following procedures and medical procedures: transfusion of blood and blood derivatives, drainage of the pleural cavity, puncture of the peritoneal cavity, lumbar puncture, fine needle biopsy
E.U31	The student interprets the pharmaceutical characteristics of medicinal products and critically assesses the advertising materials regarding medicines
E.U32	The student plans specialist consultations
E.U38	The student completes the patient's medical records

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

<b>5. ADDITIONAL EFFECTS OF LEARNING (non-compulsory)</b>	
<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
<b>Knowledge – Graduate knows and understands:</b>	
K1	
K2	
<b>Skills– Graduate is able to:</b>	
S1	
S2	
<b>Social Competencies – Graduate is ready for:</b>	
SC1	
SC2	

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
LECTURES	<p><b>Lectures (prof. Wiesław Jędrzejczak) 1WP</b></p> <ol style="list-style-type: none"> <li>1. Epidemiology of cancer</li> <li>2. Biology of cancer</li> <li>3. Biology of cancer and therapeutic strategies</li> <li>4. General diagnostic approach to cancer patient</li> <li>5. General therapeutic approach to cancer patient</li> <li>6. Cancer chemotherapy – basic principles.</li> <li>7. Cancer chemotherapy – specific regimens.</li> <li>8. Hormonotherapy and biotherapy of cancer</li> <li>9. Search for new cancer remedies and clinical trials.</li> <li>10. Patient with cancer: how to talk with him?</li> </ol> <p>Lectures take place in the <b>Aula A in Didactic Centre at 2a Trojdena St.</b> at 14:00-15:30 – Mondays from October 14, 2024</p>	E.W23 E.W24 E.W25 E.W26 E.W27 E.W28 E.W29
SEMINARS	<p><b>SEMINARS and CLASSES</b></p> <p><b>Monday</b></p> <p>8:00- 8:15 Introduction to the Oncology</p> <p>8:15-9.45 Case studies: basic cancer signs. Interpretation of relevant laboratory and imaging tests useful in oncology</p> <p>10.00-11:00 Seminar: Cancer staging</p> <p>11:30-13.00 Rounds in oncology division. Preparation of cytostatic agents for administration.</p>	E.W23 E.W24 E.W25 E.W26 E.W27 E.W28 E.W29 E.U1 E.U3 E.U7

	<p>13.10-14:00 Oncology - concept of comprehensive care, future trends in care and therapy.</p> <p><b>Tuesday</b>  8.00-9.00 Clinical approach to principles of chemotherapy  9:00–10:00 Case studies: Breast Cancer  10.00 -10:45 Rounds in oncology division.  11.00-12.00 Case studies: patients suffering from common cancers of the gastrointestinal tract: stomach, pancreas, colon and rectum  12.30 – 14.00 Case studies: patients suffering from common cancers of the genitourinary system: kidney, bladder, prostate, testis</p> <p><b>Wednesday</b>  8.00-9.45 Rounds in oncology division.  10.00 -10.45 Case studies: patients suffering from skin cancer including malignant melanoma.  10:45-11:30 Case studies: patients suffering from lung cancer  12.00 - 2.00 Seminar: Principles of radiotherapy Demonstration of typical cases treated primarily by radiotherapy. Demonstration of typical cases treated by radiotherapy in conjunction to chemotherapy.</p> <p><b>Thursday</b>  8.00-9.45 Rounds in oncology division.  10.00–11.00 Case studies: patients suffering from breast cancer, ovarian cancer, cancers of the uterus  11.30 –12:45 Supportive care in oncology  13:00-14:00 Oncological emergencies</p> <p><b>Friday</b>  8.00 -9.30 Problems in palliative care and how to approach them  9:30-10:30 Exercises on phantoms  10:30–11:30 Case studies: Central nervous system tumors  12.00-13.00 Patient suffering from cancer of the head and neck. Patient suffering from cancer of unknown primary site.</p> <p>Due to the availability of room please check the schedule before the classes –  leszekkraj@wum.edu.pl</p>	E.U12 E.U14 E.U16 EU17 E.U18 E.U20 E.U21 E.U22 E.U23 E.U24 E.U25 E.U29 E.U30 E.U31 E.U32 E.U37 E.U38

## 7. LITERATURE

### Obligatory

Oxford Handbook of Oncology – Jim Cassidy et al, 4<sup>th</sup> Edition

### Supplementary

1. "Harrison's Principles of Internal Medicine - current edition
2. Cancer, De Vita, Helmann, Rosenberg 11-th Edition

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
E.U1, E.U16, E.U18 E.U21, E.U24, E.U30 E.U31, E.U32, E.U38	Practical skills examination	Positive evaluation of the teaching assistant
	Final colloquium ( 30 MCQ test questions).	threshold number of points - 21 good answers
E.W23, E.W24, E.W25 E.W26., E.W27., E.W28 E.W29	Final exam in summer exam session ( 80 MCQ test questions )	<b>3.0 (satisfactory)</b> 60% points to pass <b>3.5 (rather good)</b> Gauss curve <b>4.0 (good)</b> Gauss curve <b>4.5 (more than good)</b> Gauss curve <b>5.0 (very good)</b> Gauss curve

## 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)*

5<sup>th</sup> year- presence on 90% of practical classes and electronic test at the end of the classes– the test consists of 30 random questions. The students failing test can write it for the second time. In case of second failure oral retake takes place. If the oral retake fails – the course is failed and has to be repeated.

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### ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.



## Orthopedics and Traumatology

### 1. IMPRINT

<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical science
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Exam
<b>Educational Unit / Educational Units</b>	<p>1. <b>Clinic of Orthopedics and Traumatology (1WE)</b>, Infant Jesus Teaching Hospital, 4 Lindlay'a St. 02-005 Warsaw, Poland Phone: 48 22 502 15 14; e-mail: <a href="mailto:klort@wum.edu.pl">klort@wum.edu.pl</a></p> <p>2. <b>Department of Orthopaedics and Rehabilitation (2WG/ WLS 21)</b>, Międzyleski Szpital Specjalistyczny, 2 Bursztynowa St., 04-749 Warsaw, Poland (3<sup>rd</sup> floor, building "C") Phone: 48 22 473 52 18, e-mail: <a href="mailto:ortopedia@mssw.pl">ortopedia@mssw.pl</a></p>
<b>Head of Educational Unit / Heads of Educational Units</b>	<p>1. Dr hab. Paweł Łęgosz, MD PhD (1WE)</p> <p>2. Prof dr hab Artur Stolarczyk, MD Ph.D (WLS21)</p>
<b>Course coordinator</b>	<p>1. Dr Łukasz Szelterski PhD, MD (1WE)</p> <p>2. Dr Piotr Stępiński, MD (WLS21)</p>
<b>Person responsible for syllabus</b>	<p>1. Dr Łukasz Szelterski PhD, MD</p> <p>2. Piotr Stępiński, MD</p>
<b>Teachers</b>	<p>1. (1WE) Dr Łukasz Szelterski, Dr Wojciech Żakiewicz, Dr Piotr Strzelczyk, Dr Bartosz Szostakowski, Dr Artur Leśkow, Dr Sławomir Struzik</p> <p>2. (WLS21) Piotr Stępiński M.D, Marcin Łapiński MD, Maciej Świercz M.D., Monika Dorocińska M.D., Dawid Jegierski M.D., Bartosz Maciąg M.D.</p>

### 2. BASIC INFORMATION



<b>Year and semester of studies</b>	V year, 9 & 10 semester	<b>Number of ECTS credits</b>	3.0
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)			
Seminar (S)	20	1.5	
Classes (C)	40	1.5	
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions			

<b>3. COURSE OBJECTIVES</b>	
O1	Learning the principles of assessing, differential diagnosis and treatment of general orthopaedics, traumatic and non-traumatic disorders
O2	Learning the basics of an orthopedic physical examination
O3	Improve knowledge of the anatomy, physiology and pathophysiology of the musculoskeletal system

<b>4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING</b>	
<b>Code and number of the effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>  A.W1, A.W2, A.U3, A.U4, F.W1, pts 3&4, F.W2, F.W3, F.W4, F.W5, F.W10, F.W13 pt. 6, E.U.23, F.U.7, F.U.8
<b>Knowledge – Graduate* knows and understands:</b>	
A.W1	appropriate Polish and English anatomical, histological and embryological terminology
A.W2	structure of the human body in the topographical approach (upper and lower limb, chest, abdomen, pelvis, back, neck, head) and the functional approach (skeletal system, muscular system, urinary system, reproductive system, nervous system and sensory system, integumentary system)
F.W.2	specific paediatric surgery, including traumatology, otolaryngology, acquired defects and diseases in children which require surgical treatment
F.W1, 3 &4	causes, symptoms, principles of diagnosis and therapeutic treatment in relation to the most common diseases

	<p>requiring surgical intervention taking into account the distinctions of childhood, in particular:</p> <p>3) limb and head diseases</p> <p>4) bone fractures and organ injuries</p>
F.W3	rules of qualification and performance, as well as the most common complications of basic surgical procedures and invasive diagnostic and therapeutic procedures
F.W4	principles of perioperative safety, patient preparation for surgery, general and local anaesthesia and controlled sedation
F.W5	post-operative treatment with analgesic therapy and postoperative monitoring
F.W10, 1, 2, 3	<p>problems of contemporary imaging studies, in particular:</p> <p>1) radiological symptomatology of basic diseases</p> <p>2) instrumental methods and imaging techniques used to perform therapeutic procedures</p> <p>3) indications, contraindications and preparation of patients for particular types of imaging examinations and contraindications to the use of contrast agents</p>
F.W.13, 6	<p>causes, symptoms, principles of diagnosis and therapeutic treatment in the case of the most common diseases of the central nervous system in terms of:</p> <p>6. diseases of the spine and spinal cord</p>

**Skills– Graduate\* is able to:**

G.S1	Able to assess an x-ray with regards to the most typical fractures, especially long bones
A.U3	explain the anatomical background of the physical examination
A.U4	correlate the relationships between the anatomical structures on the basis of in vivo diagnostic studies, especially medical imaging (X-ray, contrast-enhanced studies, computed tomography, magnetic resonance imaging)
E.U23	propose a rehabilitation programme for the most common diseases
F.U7	assess the result of radiographic studies in terms of the most frequent kinds of fractures, especially long bone fractures
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

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

<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
-------------------------------------	----------------------------------

**Knowledge – Graduate knows and understands:**

G.W1	health assessment methods of an individual and a population, disease and medical procedure classification
	Understands the causes, typical symptoms, basis for diagnosis and treatment of the most common orthopedic conditions
	Understands basics and specifics of pediatric orthopedics, including trauma, congenital and acquired conditions which may require surgical treatment
<b>Skills– Graduate is able to:</b>	
S1	Student is able to carry out procedures following injuries (dressing or casting, cleaning and suturing a wound)
G.U7	recognise when examining a child the behaviours and symptoms suggesting that the child is a victim of violence
G.U3	interpret the incidence of diseases and disability
<b>Social Competencies – Graduate is ready for:</b>	
SC1	
SC2	

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
Seminars in the the form of E-learning webinars on MS TEAMS with corresponding materials available on <a href="http://wum.edu.pl">wum.edu.pl</a>	<ul style="list-style-type: none"> <li>• Musculoskeletal structure and function</li> <li>• Orthopedic examination</li> <li>• Osteoarthritis</li> <li>• Non articular/soft tissue disorders</li> <li>• Developmental dysplasia of the hip</li> <li>• Congenital and developmental conditions</li> <li>• Joint arthroplasty</li> <li>• Orthopedic oncology</li> <li>• Distraction osteogenesis</li> <li>• Principles of fracture and healing</li> <li>• Fracture management</li> <li>• Upper limb injuries</li> <li>• Lower limb injuries</li> <li>• Spinal injuries</li> <li>• Hand injuries</li> <li>• Principles of pediatric trauma</li> <li>Shoulder conditions and injuries</li> </ul>	A.W.1-2; F.W.1 pts 3 and 4; F.W.2 - 5; F.W 10; F.W.13 pt 6 A.U.3 A.U.4 E.U.23 F.U.7-8
Classes	1 – Practical classes of internal fixation of the long bones in the clinical simulation center 2- Practical classes of joint arthroscopy in the clinical simulation center 2 - Emergency duty including basic plaster casting and immobilisation lessons	A.W.1-2; F.W.1 pts 3 and 4; F.W.2 - 5; F.W 10; F.W.13 pt 6 A.U.3 A.U.4 E.U.23 F.U.7-8

## 7. LITERATURE

### Obligatory

"Current Diagnosis & Treatment in Orthopedics", H.B. Skinner, Lange, 2006

### Supplementary

1. "Textbook of Orthopaedics", John Ebenezar, Anshan, 2006
2. "Blueprints Orthopedics" Grant Cooper, Blackwell Publishing, 2005
3. "Orthopaedics", Robert H. Fitzgerald, Mosby, 2002

## 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.W2, A.U3, A.U4, F.W1, pts 3&4, F.W2, F.W3, F.W4, F.W5, F.W10, F.W13 pt. 6, E.U.23, F.U.7, F.U.8	Completion of the entire e-learning course and attendance at all webinar classes. MCQ exam.	<i>e.g. threshold number of points</i>

## 9. ADDITIONAL INFORMATION

Classes/webinars/seminars will take place between 9:00 and 15:00 at the Clinic of Orthopedics and Traumatology Lindley's 4 campus or web

Missed classes/webinars/seminars will have to be completed with other group or need to be individually arranged with the coordinator.

### Dep. 1WE classes:

Gr 2- 05.05-16.05.2025

### Dep. 2WG/ WLS21 classes:

Gr 1- 24.02-07.03.2025

Gr 3-12.05-23.05.2025

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### ATTENTION

The final 10 minutes of the last class of the block/semester/year should be allotted for students to fill out the Survey of Evaluation of Classes and Academic Teachers



## Forensic medicine with elements of law

### 1. IMPRINT

<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module/ course</b>	obligatory
<b>Form of verification of learning outcomes</b>	exam
<b>Educational Unit / Educational Units</b>	Department of Forensic Medicine, Oczki 1 St., Warsaw 02-007, Poland phone 22 628-89-75; fax 22 628-89-75 ext. 33 www.medycynasadowa.wum.edu.pl e-mail: forensic@medycynasadowa.wum.edu.pl sekretariat@medycynasadowa.wum.edu.pl

<b>Head of Educational Unit / Heads of Educational Units</b>	prof. Paweł Krajewski, MD, PhD
<b>Course coordinator</b>	Mieszko Olczak, MD, PhD, <a href="mailto:mieszko.olczak@wum.edu.pl">mieszko.olczak@wum.edu.pl</a> ; tel. 22 628-89-75 ext. 69
<b>Person responsible for syllabus</b>	Mieszko Olczak, MD, PhD, <a href="mailto:mieszko.olczak@wum.edu.pl">mieszko.olczak@wum.edu.pl</a> ;
<b>Teachers</b>	Marcin Fudalej MD PhD, <a href="mailto:marcin.fudalej@wum.edu.pl">marcin.fudalej@wum.edu.pl</a> ; Agnieszka Dąbkowska, MD PhD, <a href="mailto:adabkowska@wum.edu.pl">adabkowska@wum.edu.pl</a> ; Mieszko Olczak, MD, PhD, <a href="mailto:mieszko.olczak@wum.edu.pl">mieszko.olczak@wum.edu.pl</a> ;

## 2. BASIC INFORMATION

<b>Year and semester of studies</b>	V year, IX and X semester	<b>Number of ECTS credits</b>	3.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)			
Seminar (S)		25	1
Classes (C)		25	1
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		50	1

## 3. COURSE OBJECTIVES

O1	Adaptation of medical knowledge for the purpose of law
O2	Understanding of death, thanatology, and goals for forensic autopsy.
O3	Understanding different mechanisms of natural and unnatural deaths.
O4	Forensic issues of traumatology.

05	Forensic toxicology.
06	Forensic genetics.
07	Forensic aspects of interpersonal violence and child abuse.

**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**

**Effects in the field of:** (*in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019*)

**Knowledge – Graduate\* knows and understands:**

G.W7	the legal obligations with regard to confirmation of death
G.W12	the definition of unnatural death and sudden death and the differences between trauma and injury
G.W13	the legal basis and rules of conduct of the doctor during the examination of the body on crime scene and forensic examination of the body
G.W14	rules of forensic medical diagnostics and giving opinions in cases concerning infanticide and reconstruction of the circumstances of a road accident
G.W15	the rules of forming up opinions as an witness expert in criminal cases
G.W16	the rules of forensic medical opinions regarding the ability to participate in procedural activities, biological effect of trauma and health loss
G.W18	the rules of collecting material for toxicological and hemogenetic research

**Skills– Graduate\* is able to:**

G.U7	to recognize the behavior and symptoms indicating the possibility of violence against a child
G.U9	collect blood for toxicological tests and material for genetic test

*\* 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 in the fields of:**

**Knowledge – Graduate knows and understands:**

K1	the rules and obligations applied to human cadavers G.W33
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K2	issues related to serology and forensic genetics G.W35
K3	basics of forensic toxicology G.W36

**Skills– Graduate is able to:**

S1	evaluate postmortem changes G.U28
S2	asses the effects of facial and skull injuries in terms of criminal and civil proceedings G.U30

**Social Competencies – Graduate is ready for:**

SC1	
SC2	

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
Seminar	Introduction to Forensic Medicine. Educational contents: confirmation of death, medico-legal thanatology, post-mortem changes, forensic and hospital autopsy, procedures applied to bodies found at crime scene	G.W 7; G.W 12; G.W 13; G.W 15; G.W 33; G.W 37;
Seminar	Sudden natural death. Educational contents: sudden natural death due to different diseases, autopsy manifestations of different chronic diseases.	G.W 7; G.W 12; G.W15, G.W16; G.W 33; G.W 37;
Seminar	Asphyxia. Educational contents: mechanism of death, different types of asphyxia, autopsy findings in cases of asphyxia	G.W 33; G.W 37;
Seminar	Traumatology. Educational contents: different types of trauma and injuries (blunt force trauma, sharp force trauma, gunshot injuries, death in fire, electrocution, hypothermia)	G.W 16; G.W 33; G.W 37;
Seminar	Traffic injuries. Educational contents: traffic injuries, injuries of various types of road participants (pedestrians, car occupants, car drivers, bicyclists, motorcyclists).	G.W 14; G.W 33;
Seminar	Forensic toxicology. Educational contents: different types of toxins, toxicological examination in forensic medicine, autopsy findings in different types of fatal poisoning	G.W 16; G.W 36;
Seminar	Forensic genetics. Educational contents: basics of forensic genetics.	G.W 37;
Seminar	Child and sexual abuse. Educational contents: injuries indicating child abuse, examination of a rape victim.	G.W 7; G.W 9; G.W 16; G.W 35; G.U 7; G.U 9;
Seminar	Human identification. Educational contents: methods used for an identification of a person of unknown identity, examination of a body remains.	G.W 9; G.W 28; G.W 16; G.W 35;
Practical classes	Medico-legal autopsy of the dead	G.U 9; G.U 28; G.W 37;
Practical classes	Medico-legal autopsy of the dead	G.U 9; G.U 28; G.W 37;
Practical classes	Medico-legal autopsy of the dead	G.U 9; G.U 28; G.W 37;
Practical classes	Medico-legal autopsy of the dead	G.U 9; G.U 28; G.W 37;
Practical classes	Medico-legal autopsy of the dead	G.U 9; G.U 28; G.W 37;



Practical classes	Medico-legal autopsy of traumatic death.	G.U 28; G.U 30; G.W 16; G.W 37;
Practical classes	Medico-legal autopsy of traumatic death.	G.U 28; G.U 30; G.W 16; G.W 37;
Practical classes	Medico-legal autopsy of an unidentified body.	G.U 9; G.U 28; G.W 37;
Practical classes	Medico-legal examination of human body remains (determining the number of individuals, sex, age, stature, body weight, signs of trauma), forming opinion about cause of death.	G.U 9; G.U 28; G.W 16; G.W 35; G.W 37;

<b>7. LITERATURE</b>
<b>Obligatory</b>
<ol style="list-style-type: none"> <li>1. Handbook of Forensic Pathology V.J.M. DiMaio, S. E. Dana Taylor and Francis Group 2007.</li> <li>2. Simpson's Forensic Medicine R. Shepherd, Arnold 2003</li> </ol>
<b>Supplementary</b>
<ol style="list-style-type: none"> <li>1. Encyclopedia of Forensic Sciences J.A.Siegel, P.J. Saukko, 2013 Academic Press</li> <li>2. Forensic Analysis of the skull M.Y.Iscan, R.P. Helmer, Wiley-Liss</li> </ol>

<b>8. VERIFYING THE EFFECT OF LEARNING</b>		
<b>Code of the course effect of learning</b>	<b>Ways of verifying the effect of learning</b>	<b>Completion criterion</b>
G.W7; G.W12; G.W13; G.W14; G.W15, G.W16; G.W18; G.W33; G.W35; G.W36; G.W37;	Continuous assessment in the classroom - on seminars and practical classes, written reports, discussion.	Active participation in the class, 100% attendance (a maximum 2 day of absences during the course could be accepted, however absence on the seminars must be covered by writing an essay covering the topic of a seminar, and absence on autopsies (practical classes) - by assisting in additional autopsy after a regular teaching hours. Positive result of the MCQ test.
		<p>Assessment:</p> <p>2.0 (failed) - Final test result less than 66%. More than two day of absences during the course, no active participation in seminar classes or classes, lack of basic knowledge in the field of thanatology, opinions and toxicological and genetic diagnostics in forensic medicine.</p> <p>3.0 (satisf.) - Final test result 66.01-74%. The condition of completing the course is attendance at all classes, participation in exercises and seminars and demonstrating skills in the medical and forensic issues covered by the curriculum at the basic level.</p> <p>3.5 (more than satisf.) - Final test result 74.01-80%. The condition for obtaining the grade is attendance at all classes, participation in exercises and seminars, and demonstrating skills in medical and forensic issues covered by the curriculum at a level above elementary.</p> <p>4.0 (good) - Final test result 80.01-88%. Active participation in exercises and seminars and demonstrating the skills of practical application of knowledge in forensic and medical opinions.</p>

		<p>4.5 (more than good) - Final test result 88.01-94%. Active participation in exercises and seminars as well as skills in the practical application of knowledge in forensic medical opinions in high level.</p> <p>5.0 (very good) - Final test result 94.01-100%. Active participation in exercises and seminars and demonstrating the skills of practical application of knowledge in forensic and medical opinion in very high level.</p>
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**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. All classes are held in Forensic Medicine Department facility at Oczki 1 St. in Warsaw.
2. Classes start at 8:30.
3. For practical classes, the student must have his own apron and protective glasses or visor, street shoes are accepted.
4. The use of mobile phones or other recording devices during forensic class **is strictly prohibited**.
5. A student can miss maximum two days of the course, however absence on each lecture **must be covered** by writing an essay covering the topic of a lecture, and absence on autopsy – by assisting in additional autopsy after regular teaching hours. Students can get credit and proceed to the final exam only after completing all Department’s requirements. For three late arrivals, the student is obliged to make up an additional autopsy.
6. If student’s absences exceed limitations listed above, he/she is required to take a complete course with another group.
7. Examination grades are final, and we do not allow positive ratings to be improved.
8. Any comments or complaints regarding the final test are considered up to 5 working days after publishing the exam results – a visit to the teacher must be arranged before.
9. In case of failed exam the retake is an oral exam.

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**ATTENTION**

The final 10 minutes of the last class in the block/semester/year should be allocated to students’ Survey of Evaluation of Classes and Academic Teachers.



# OPHTHALMOLOGY

## 1. IMPRINT

<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Exam
<b>Educational Unit / Educational Units</b>	Department of Ophthalmology 13 Sierakowskiego Str, 03-709 Warsaw Phone: 48 22 511 63 77; e-mail: <a href="mailto:klinika@spkso.waw.pl">klinika@spkso.waw.pl</a>
<b>Head of Educational Unit / Heads of Educational Units</b>	Professor Jacek P. Szaflik MD, PhD
<b>Course coordinator</b>	Monika Łazicka-Gałecka, MD PhD e-mail: <a href="mailto:monika.lazicka-galecka@wum.edu.pl">monika.lazicka-galecka@wum.edu.pl</a>
<b>Person responsible for syllabus</b>	Monika Łazicka-Gałecka, MD, PhD e-mail: <a href="mailto:monika.lazicka-galecka@wum.edu.pl">monika.lazicka-galecka@wum.edu.pl</a>
<b>Teachers</b>	Professor Jacek P. Szaflik MD, PhD, FEBO Ewa Langwińska MD, PhD Justyna Izdebska MD, PhD Anna Zaleska-Żmijewska MD, PhD Michał Post, MD, PhD Anna Kurowska, MD, PhD Monika Udziela, MD, PhD Joanna Przybek-Skrzypecka MD, PhD, FEBO Monika Łazicka-Gałecka MD.PhD

<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	V year, winter and summer semester	<b>Number of ECTS credits</b>	2.00
<b>FORMS OF CLASSES</b>	<b>Number of hours</b>	<b>ECTS credits calculation</b>	
<b>Contacting hours with academic teacher</b>			
Lecture (L)	0		
Seminar (S)	10	0,4	
Classes (C)	40	1,6	
e-learning (e-L)	0		
Practical classes (PC)	0		
Work placement (WP)	0		
<b>Unassisted student's work</b>			
Preparation for classes and completions	20		

<b>3. COURSE OBJECTIVES</b>	
O1	Gaining knowledge about pathophysiology, symptoms and signs, diagnostics tools and treatment methods for the most common eye disorders
O2	Acquiring the ability to perform Basic ophthalmologic examinations, diagnosing acute ophthalmological disorders and eye injuries
O3	Providing immediate first ophthalmological aid

<b>4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING</b>	
<b>Code and number of the effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
<b>Knowledge – Graduate* knows and understands:</b>	
F.W11	eye diseases, in particular: 1) treatment methods of the most common eye disorders, ophthalmological complications of systemic diseases with their ophthalmological symptomatology and proper procedures to be used in such cases,

	<p>2) ophthalmological complications of systemic diseases with their ophthalmological symptomatology and proper procedures to be used in such cases;</p> <p>3) surgical treatment methods of common eye diseases,</p> <p>4) Basic groups of medicines used in ophthalmology, their adverse effects and interactions,</p> <p>5) groups of medicines for general use causing complications, as well as ophthalmological contraindications and the respective mechanism;</p>
F.W3	rules of qualification and performance, as well as the most common complications of Basic surgical procedures and invasive diagnostic and therapeutic procedures;
F.W10 p.3	indications, contraindications and preparation of patients for particular types of imaging examinations and contraindications to the use of contrast agents;
F.W13 p.3	causes, symptoms, principles of diagnosis and therapeutic treatment in the case of the most common diseases of the central nervous system in terms of: cranial-cerebral injuries,
F.W14	basic issue related to transplantology, indications for the transplantation of permanently impaired organs and tissues, as well as the related procedures;

**Skills– Graduate\* is able to:**

F.U19	perform ophthalmic screening tests;
F.U20	recognise ophthalmic conditions that require an immediate specialist aid and provide initial, qualified aid in the case of physical and chemical eye injuries;
F.U3	observe the rules of asepsis and antisepsis;

\* 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 in the fields of:
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**Knowledge – Graduate knows and understands:**

K1	
K2	

**Skills– Graduate is able to:**

S1	
S2	

**Social Competencies – Graduate is ready for:**

SC1	
SC2	

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
Seminars	S1 - Introduction to ophthalmology. Principles of optics	F.W11
	S2 - Diseases of conjunctiva and cornea	F.W11, F.W3
	S3 – Diseases of the ocular adnexae and the anterior segment disorders: eyelids, dry eye syndrome, cataract	F.W11, F.W3
	S4 – Diseases of the retina and vitreous. Diseases of uveal tract	F.W11, F.W3, F.W10 p3
	S5 – Ocular surgery	F.W11, F.W3, F.W14
	S6 – Glaucoma- diagnosis and treatment	F.W11, F.W3
	S7 – Ocular injuries. Emergency in ophthalmology	F.W11, F.W3, F.W13 p.3
	S8 – Neuroophthalmology. Strabismus.	F.W11, F.W10 p.3
	S9 – Ocular manifestations of systemic diseases	F.W11
Practical classes	C1-C9: students learn how to take an ophthalmology history; perform visual and ophthalmological examinations, including Visual acuity, color vision, comparative visual field, autokeratorefractometer, slit lamp examination, eye motility, pupillary reflexes, macular and optic disc optical coherence (OCT) test, anterior segment OCT; and ophthalmic first aid procedures: removal of a foreign body from the conjunctival sac, irrigation of the conjunctival sac, application of eye drops, ointments and bandages, practice in the ophthalmological simulation center	F.U20 F.U19 F.U3 F.W11 F.W3 F.W10 F.W14 F.W13

<b>7. LITERATURE</b>
<b>Obligatory</b>
1. Materials from the seminars (available on-line at the Medical University of Warsaw e-learning platform)
<b>Supplementary</b>
1. „Ophthalmology at a Glance” Jane Olver, Lorraine Cassidy, ISBN: 978-0-632-06473-1, May 2005, ©2005, Wiley-Blackwell
2. Clinical Ophthalmology” by Jack J. Kanski, and Brad Bowling

<b>8. VERIFYING THE EFFECT OF LEARNING</b>		
<b>Code of the course effect of learning</b>	<b>Ways of verifying the effect of learning</b>	<b>Completion criterion</b>
F.W11 F.W3 F.W10 p.3) F.W13 p.3) F.W14	Final exam – 50 single choice questions	threshold number of points: ≥94% (50-47 points) – <b>5.0</b> 93%-86% (46-43 points) – <b>4,5</b> 85%-76% (42-38 points) – <b>4.0</b> 75%-68% (37-34 points) – <b>3.5</b> 67%-60% (33-30 points) – <b>3.0</b>

		≤59% (29-0 points) – 2.0
F.U19, F.U20, F.U3,	Practical skills examination	Positive evaluation of the teaching assistant
F.W11 F.W3 F.W10 p.3) F.W13 p.3) F.W14 F.U19, F.U20, F.U3,	Quiz and test available on-line at the Medical University of Warsaw e-learning platform	complete activity on e-learning platform

## 9. ADDITIONAL INFORMATION

Seminars are available on-line at the Medical University of Warsaw e-learning platform. Students need to read/listen to the seminars prior to the stationary classes begin.

Classes start the seminar at. 8.30 in the Conference Room on the first floor, room 1.12. The cloakroom for students is located on the 1<sup>st</sup> floor of the hospital rm 1.17).

In special cases, the students will be informed about any organizational changes by e-mail by the starost of the group.

The contact with the Clinic is by e-mail: [klinika@spkso.waw.pl](mailto:klinika@spkso.waw.pl) or by phone: 22 5116377 (Clinic's office).

Only one absence is acceptable. More absences have to be worked off with a different group.

Medical clothing and changeable footwear are required during the classes. Medical clothing with short sleeves is recommended. In the case of a medical apron worn over private clothing, it should be closed. Jewellery (watches, rings, bracelets, etc.) is not allowed. Nails must not be painted and long hair should be pinned together. Protective gloves should be put on after washing / disinfecting hands immediately before contact with the patient.

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### ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.



## Internal Medicine - Diabetology

### 1. IMPRINT

<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full-time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Completion
<b>Educational Unit / Educational Units</b>	Department of Internal Medicine, Endocrinology and Diabetology, Medical University of Warsaw; Mazovian Brodnowski Hospital, 8 Kondratowicza St, 03-242 Warsaw, Poland
<b>Head of Educational Unit / Heads of Educational Units</b>	Professor Przemysław Witek MD, PhD
<b>Course coordinator</b>	Paweł Kuca MD, PhD, e-mail: <a href="mailto:pawel.kuca@wum.edu.pl">pawel.kuca@wum.edu.pl</a>
<b>Person responsible for syllabus</b>	Paweł Kuca MD, PhD, e-mail: <a href="mailto:pawel.kuca@wum.edu.pl">pawel.kuca@wum.edu.pl</a>
<b>Teachers</b>	Przemysław Witek, MD, PhD Roman Kuczerowski, MD, PhD Paweł Kuca, MD, PhD Patrycja Adamek, MD Aleksandra Dubiel, MD Łukasz Działach, MD Agnieszka Maksymiuk-Kłós, MD Magdalena Poteraj, MD Joanna Sobolewska, MD Zuzanna Żak, MD

### 2. BASIC INFORMATION



<b>Year and semester of studies</b>	V year 9 & 10 semester	<b>Number of ECTS credits</b>	2.00
<b>FORMS OF CLASSES</b>	<b>Contacting hours with academic teacher</b>	<b>Number of hours</b>	<b>ECTS credits calculation</b>
Lecture (L)			
Seminar (S)		16	0.5
Classes (C)		10	0.5
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		15	0,5

<b>3. COURSE OBJECTIVES</b>	
O1	Improve the skills of history taking and proper physical examination.
O2	Ability to conduct differential diagnosis and to use proper diagnostic path in diabetology
O3	Ability to recognize and treat life-threatening conditions in diabetology Ability to treat and monitor treatment of common types of diabetes

<b>4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING</b>	
<b>Code and number of the effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> E.W1, E.W7, E.W40, E.W41, E.U1, E.U3, E.U7, E.U12, E.U13, E.U14, E.U16, E.U18, E.U24, E.U38
<b>Knowledge – Graduate* knows and understands:</b>	
G.K1	knows and understands principles of history taking and physical examination (E.W7)
G.K2	knows and understands environmental and epidemiological determinants of the most common illnesses and the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common internal diseases occurring in adults and their complications: neuropathy, nephropathy, retinopathy, cardiovascular diseases (E.W1, E.W7)
G.K3	knows and understands theoretical and practical bases of laboratory diagnosis, interpretation of laboratory values and others basic tests and capabilities and limitations of laboratory testing in emergencies (E.W7, E.W40, E.W41)
<b>Skills– Graduate* is able to:</b>	

G.S1	Take history and perform physical examination of patients with diabetes, collect medical history from adult patients , conduct a complete and targeted physical examination in adults, evaluate the general condition, the state of consciousness and awareness of a patient, assess and describe the patient’s somatic and psychological states (E.U1, E.U3, E.U7, E.U13)
G.S2	interpret laboratory tests and imaging tests in diabetes, interpret laboratory test results with the identification of reasons for deviation (E.U24)
G.S3	provide differential diagnosis of particular symptoms including metabolic disorders (E.U12)
G.S4	plan diagnostic procedures and treatment in common type of diabetes (E.U16)
G.S5	prepare and analyse clinical cases, keep a patient’s medical records (E.U13, E.U38)
G.S6	recognize, diagnose and treat life-threatening conditions in diabetology (E.U14)
G.S7	present a patient case to other doctor, consult relevant abnormalities in laboratory and imaging tests, plan diagnostic, therapeutic and preventive treatment, propose the individualisation of applicable therapeutic guidelines and alternative treatment in the case of ineffectiveness or contraindications to standard therapy (E.U13, E.U14, E.U16, E.U18)

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

<b>5. ADDITIONAL EFFECTS OF LEARNING (non-compulsory)</b>	
<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
<b>Knowledge – Graduate knows and understands:</b>	
K1	
<b>Skills– Graduate is able to:</b>	
S1	
<b>Social Competencies – Graduate is ready for:</b>	
SC1	

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
bedside classes	Training of practical issues connected with making history, signs and symptoms assessment as well as diagnosis and treatment.	E.U1, E.U3, E.U7, E.U12, E.U13, E.U14, E.U16, E.U24, E.U38
Lectures	<b>Lectures:</b> 1. Clinical cases of acute complications in diabetes. 2. Clinical cases of retinopathy, nephropathy and neuropathy. 3. Clinical examples of diabetic foot. 4. Clinical cases of diabetes in pregnancy.	E.W1, E.W7, E.W40, E.W41, E.U13, E.U14, E.U16, E.U18
Seminars	S1-Pathophysiological basis for glucose metabolism disorders classifications. Metabolic syndrome. S2- Diabetes type 2 and type 1-differences in pathophysiology. S3- Diet and physical activity in diabetes. S4- Goals of treatment for patient with diabetes	E.W1, E.W7, E.W40, E.W41

	<p>S5- Insulin in the treatment for patients with diabetes : algorithms, insulin pumps</p> <p>S6- Hypoglycemic agents in the treatment of diabetes with introduction to new drugs.</p> <p>S7- Acute complications of diabetes .</p> <p>S8 -Chronic complications of diabetes –retinopathy and nephropathy.</p> <p>S9 -Chronic complications of diabetes – neuropathy and diabetic foot .</p> <p>S10-Cardiovascular diseases in diabetes .</p> <p>S11. Diabetes in specyfic situations: hospitalization, diabetes in pregnancy, elderly.</p> <p>12. Common endocrinopaties in diabetology</p>	
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## 7. LITERATURE

### Obligatory

1. Kumar and Clark's Clinical Medicine , 8e/9e (Kumar, Kumar and Clark's Clinical Medicine) by Parven Kumar
2. Harrison's Internal Medicine (20 th edition)

### Supplementary

International Textbook of Diabetes Mellitus , 2 Volume Set 4 th edition by R.A. DeFronzo (Editor ) , e.Ferrannini (Editor), George Alberti (Editor) 2015

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
<i>e.g. G.K1, G.S1, K1</i>	<i>This field defines the methods used for grading students e.g. pop quiz, test, written report etc.</i>	<i>e.g. threshold number of points</i>
G.S1, G.S2, G.S3, G.S4, G.S6	Active participation in all seminars and classes.	Obligatory attendance and active participation in all seminars and classes.
G.S5, G.S7	Preparing a power-point presentations.	Presentation of case report.
G.K1, G.K2, G.K3	Execution of assigned tasks on the e-learning platform.	Execution of assigned tasks on the e-learning platform.
G.K1, G.K2, G.K3	Test at the end of the course .	3.0 (satisfactory).

## 9. ADDITIONAL INFORMATION

At the first day of the course we meet at the entrance of the clinic (The Department of Endocrinology, Diabetology and Internal Medicine – Kondratowicza Street 8, building C, 7th floor) at 8:00 a.m.  
Then we present the detailed schedule of classes.  
From Tuesday students present case reports indicated by the teacher.

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### ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.



## Internal Medicine – Gastroenterology

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical Sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full-time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Credit
<b>Educational Unit / Educational Units</b>	Department of Gastroenterology and Internal Medicine (1WZ) <i>Chair and Department of Gastroenterology and Internal Diseases</i> SP CSK, 1A Banacha St., 02-097 Warsaw tel (+48 22) 599 28 38, fax (+48 22) 599 18 38, e-mail: <a href="mailto:klingast@wum.edu.pl">klingast@wum.edu.pl</a> Seminars - Block D, Ground Floor, Room no 23, at 8.00 every day. Practical Classes - at the Department, Block D, 3rd Floor.
<b>Head of Educational Unit / Heads of Educational Units</b>	Dr hab. n. med Adam Przybyłkowski
<b>Course coordinator</b>	Anna Mackiewicz-Pracka, MD PhD, e-mail: <a href="mailto:anna.mackiewicz@wum.edu.pl">anna.mackiewicz@wum.edu.pl</a>
<b>Person responsible for syllabus</b>	Anna Mackiewicz-Pracka , MD PhD, e-mail: <a href="mailto:anna.mackiewicz@wum.edu.pl">anna.mackiewicz@wum.edu.pl</a>
<b>Teachers</b>	Assoc. prof. Adam Przybyłkowski Anna Drobińska, MD, PhD Joanna Ligocka, MD, PhD Piotr Nehring, MD, PhD Anna Mackiewicz-Pracka, MD, PhD Lek. Robert Kucharski Lek. Katarzyna Celińska-Dzikowska Lek. Aleksandra Budnicka-Borkowicz Lek. Krzysztof Hadrian Lek. Adam Czaplicki Lek. Jakub Pietrzak Lek. Karolina Szymańska-Cybulska Lek. Paweł Podgórski

	Lek. Konrad Sosnowski Lek. Adam Trzciński Lek. Paulina Żybul Lek. Maciej Małyszko Lek. Mikołaj Góral Lek. Michał Kowalski Lek. Katarzyna Wiejak
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## 2. BASIC INFORMATION

<b>Year and semester of studies</b>	5th year, 9 <sup>th</sup> and 10 <sup>th</sup> semester	<b>Number of ECTS credits</b>	2.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)		4	0,13
Seminar (S)		16	0,53
Classes (C)		10	0,33
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		30	1,00

## 3. COURSE OBJECTIVES

O1	The goal of the program is to acquaint students with the prevention diagnosis and treatment of the basic problems in gastroenterology.
O2	During this program all students have seminars and case studies/practical classes.
O3	During practical classes each group has an opportunity to take medical history, examine a patient and discuss all diagnostic tests (biochemical, imaging and endoscopic) with patient's physician. Also, all students have dedicated classes for the observation and participation during various diagnostic and therapeutic endoscopic procedures e.g. gastroscopy, ERCP, colonoscopy, sigmoidoscopy.

## 4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

<b>Code and number of effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>  E. W7.3, 9, E.W10; E. W23; E. W24; E. W28, E. U1; E. U3, E. U7; E.U13; E.U18; E.U21.; E.U24 ;E.U30; E. U32)
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**Knowledge – Graduate\* knows and understands:**

EW7 pkt. 3, 9	reasons, symptoms, diagnostic and treatment procedures of the most frequent internal diseases and their complications in adult patients: 3) digestive system diseases, including oral cavity, oesophagus, stomach and duodenum, intestine, pancreas, liver, bile duct and gall bladder diseases, 9) water-electrolytic disturbances and acid-base disturbances, dehydration, hyperhydration, electrolyte imbalance, acidosis and alkalosis;
E.W 10	basic principles of pharmacotherapy in the elderly;
E.W 23	environmental and epidemiological conditions of the most common cancers;
E.W24	basics of early detection of tumours and oncology screening principles;
E.W28	rules of palliative treatment of a patient in the terminal state

**Skills– Graduate\* is able to:**

E.U1	collect medical history from adult patients
E.U3	conduct a complete and targeted physical examination in adults
E.U7	evaluate the general condition, the state of consciousness and awareness of a patient
E.U13	assess and describe the patient’s somatic and psychological states
E.U18	propose the individualisation of applicable therapeutic guidelines and alternative treatment in the case of ineffectiveness or contraindications to standard therapy;
E.U21	recognise the conditions in which life expectancy, functional patient state or preferences limit the treatment according to the guidelines for a given disease;
E.U24	interpret laboratory test results with the identification of reasons for deviation;
E.U30 p. 4	assist in the following procedures and medical treatments: 4) peritoneal cavity puncture,
E.U32	plan specialist consultations;

\* 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 in the fields of:
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**Knowledge – Graduate knows and understands:**

K1	Knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common internal diseases occurring in adults and their complications; digestive system diseases including diseases of the oral cavity, oesophagus, stomach and duodenum, intestine, pancreas, biliary tract and gallbladder
K2	Knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common internal diseases occurring in adults and their complications: liver.

**Skills– Graduate is able to:**

S1	Assists in carrying out the following procedures and medical treatments: puncturing the peritoneal cavity
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S2	Assists in endoscopic procedures: gastroscopy, colonoscopy, sigmoidoscopy, ERCP, EUS.
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**Social Competencies – Graduate is ready for:**

SC1	Has the ability to recognise and differentiate the common gastrointestinal diseases in adults.
SC2	Has the ability to order the proper diagnostic tests and treatment.

**6. CLASSES**

Form of class	Class contents	Effects of Learning
Lecture	W1- Peptic ulcer disease, gastritis and stomach cancer	
Lecture	W2- Inflammatory bowel diseases	
Seminar	S1 - Diagnostic Approach in Gastroenterology	
Seminar	S2- GI Bleeding	
Seminar	S3 - Peptic ulcer disease, gastritis and stomach cancer	
Seminar	S4 - Diverticular Disease	
Seminar	S5 - Diseases of the Oesophagus and GERD	
Seminar	S6- Diseases of the Gallbladder and Bile Duct	
Seminar	S7 - Functional Disorders of GI Tract	
Seminar	S8 - Diarrhea and Malnutrition	
Seminar	S9 - Acute Pancreatitis	
Seminar	S10 - Chronic Pancreatitis	
Seminar	S11 - Colorectal Cancer	
Seminar	S12 - Acute and Chronic Liver Disease	
Seminar	S13 – Pancreatic Tumor	
Seminar	S14 - Cirrhosis and Its Complications, Liver Transplantation	
Seminar	S15 - Liver Cancer	
Seminar	S16 – Gastrointestinal Endoscopy	
Practical Classes/Online Case studies	C1-5-Practical bedside classes with appointed teacher	

**7. LITERATURE**

**Obligatory**

Harrison's Principles of Internal Medicine 20th Edition, Chapters on Gastroenterology and Diabetes

**Supplementary**

Harrison's Gastroenterology and Hepatology 3rd by Dan L. Longo, Anthony S. Fauci.

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
E. U1; E. U3, E.U7; E.U30. 4 E.U13E.U18; E.U21.; E.U24., E. U32	Active participation in all seminars and classes.	
EW7 pkt. 3, 9 E.W23.E.W24.; E.W 28; E.W10; E.W23.E.W24.; E.W 28	Single choice 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)

Department of Gastroenterology and Internal Medicine website:  
[www.gastroenterologia.wum.edu.pl](http://www.gastroenterologia.wum.edu.pl)

Venue:

Department of Gastroenterology and Internal Diseases

SP CSK, 1A Banacha St.,

Seminars - Block D, Ground Floor, Room no 23, at 8.00 every day.

Practical Classes - at the Department, Block D, 3rd Floor.

Students who are not vaccinated won't be allowed to attend practical classes. Alternative, case-based classes based will be conducted in Block D, Ground Floor, Room no 23.

*Abridged Rules of Classes in The Department of Gastroenterology and Internal Medicine:*

Knowledge in anatomy, pathophysiology and pathology of gastrointestinal tract as well as credit in Introduction to Internal Medicine is required.

Punctuality to seminars and practical classes is obligatory.

Students are obligated to wear lab coats/scrubs, have stethoscope and student's ID on every classes.

In case of single excused absence student should attend the class in a form discussed with appointed teacher.

Detailed information about classes held in the Department of Gastroenterology and Internal Medicine are available on a board next to Department office. (SP CSK, Block D, 3rd Floor)

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### ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.





## Internal medicine - Nephrology

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical science
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	full-time studies
<b>Type of module / course</b>	obligatory
<b>Form of verification of learning outcomes</b>	Completion
<b>Educational Unit / Educational Units</b>	Department of Nephrology, Dialysis and Internal Medicine UCK WUM 1a Banacha St. Warsaw 02-097 Phone: 22-599-2658 e-mail: nefrologia@wum.edu.pl
<b>Head of Educational Unit / Heads of Educational Units</b>	Professor Jolanta Małyszko
<b>Course coordinator</b>	Tomasz Głogowski, MD, PhD; tel. no. 22 599 2641; e-mail tomasz.glogowski@wum.edu.pl
<b>Person responsible for syllabus</b>	Tomasz Głogowski, MD, PhD; tel. no. 22 599 2641; e-mail tomasz.glogowski@wum.edu.pl
<b>Teachers</b>	Jolanta Małyszko, professor, PhD, MD Longin Niemczyk, PhD, MD Małgorzata Kępska-Dzilińska, PhD, MD Zuzanna Jakubowska, PhD, MD Tomasz Głogowski, PhD, MD Wojciech Krasowski, MD Michał Markowski, MD

<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	V year /9th & 10th semester	<b>Number of ECTS credits</b>	2.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)		4	0.15
Seminar (S)		16	0.50
Classes (C)		10	0.35
e-learning (e-L)		0	0
Practical classes (PC)		0	0
Work placement (WP)		0	0
<b>Unassisted student's work</b>			
Preparation for classes and completions		30	1

<b>3. COURSE OBJECTIVES</b>	
O1	Gaining knowledge about diagnostic and therapeutic approach to selected disorders of the kidneys and urinary tract
O2	Theoretical and practical principles of renal replacement therapy (hemodialysis, peritoneal dialysis, kidney transplantation)

<b>4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING</b> <i>(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)</i>	
<b>Code and number of effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b>
<b>Knowledge – Graduate* knows and understands:</b>	
G.K1	E.W1 environmental aspects and epidemiology of the most common diseases
G.K2	E.W7 causes, clinical manifestation, diagnostic and therapeutic approach to the most common diseases of the kidneys and urinary tract and associated complications in adult population: Acute kidney injury and chronic kidney disease, glomerular diseases, interstitial diseases, renal cysts, nephrolithiasis, urinary tract infections, neoplasms of the urinary tract, specifically the urinary bladder and the kidney.
<b>Skills– Graduate* is able to:</b>	
G.S1	E.U1. Conduct medical interview with an adult patient E.U3. Conduct a complete and targeted physical examination of an adult patient

	E.U14 Recognize life-threatening conditions E.U16. Plan diagnostic, therapeutic and prophylactic procedures E.U24. Interpret laboratory test results and identify any abnormalities and their underlying causes
G.S2	

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

Number of effect of learning	Effects in the fields of:
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### Knowledge – Graduate knows and understands:

K1	D.W5 Basic principles of communication with the patient and their relatives; development of empathetic and trust-based relationship D.W6. The importance of verbal and non-verbal communication with the patient and the concept of trust-based interaction with the patient
K2	

### Skills– Graduate is able to:

S1	Can interpret laboratory test results and identifies the causes of abnormal results
S2	Can plan specialist consultations.

### Social Competencies – Graduate is ready for:

SC1	
SC2	

## 6. CLASSES

Form of class	Class contents	Effects of Learning
Lectures	L1 Acute kidney injury L2 Chronic kidney disease	E.W1, E.W7
Seminars	S1 Additional tests in nephrology S2 Anemia in chronic kidney disease S3 Neoplasms of kidney and urinary tract S4 Polycystic kidney disease S5 Bone and mineral disorders S6 Urinary tract infections S7 Glomerulonephritis S8 Nephrotic syndrome S9 Dialysis, renal transplantation S10 Sodium and potassium disorders	E.W1, E.W7
Clinical classes	C1 Acute kidney injury, chronic kidney disease C2 Glomerular diseases, tubulointerstitial nephritis C3 Renal replacement therapy C4 Electrolyte and acid-base disorders, fluid management C5 Emergency and life-threatening conditions in	E.U1, E.U3, E.U12, E.U13, E.U14, E.U16, E.U17, E.U18, E.U20, E.U21, E.U24, E.U29, E.U31, E.U37, E.U38

nephrology
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## 7. LITERATURE

### Obligatory

[www.uptodate.com](http://www.uptodate.com)

1. Overview of the management of acute kidney injury (AKI) in adults
2. Definition and staging criteria of acute kidney injury in adults
3. Etiology and diagnosis of prerenal disease and acute tubular necrosis in acute kidney injury in adults
4. Overview of the management of chronic kidney disease in adults
5. Chronic kidney disease (newly identified): Clinical presentation and diagnostic approach in adults
6. Definition and staging of chronic kidney disease in adults
7. Evaluating patients for chronic peritoneal dialysis and selection of modality
8. Kidney replacement therapy (dialysis) in acute kidney injury in adults: Indications, timing, and dialysis dose
9. Kidney transplantation in adults: Timing of transplantation and issues related to dialysis
10. Acute complications during hemodialysis
11. Glomerular disease: Evaluation and differential diagnosis in adults
12. Isolated and persistent glomerular hematuria in adults
13. Overview of the classification and treatment of rapidly progressive (crescentic) glomerulonephritis
14. Overview of heavy proteinuria and the nephrotic syndrome
15. Pathophysiology and treatment of edema in adults with the nephrotic syndrome
16. Treatment and prevention of hyperkalemia in adults
17. Causes and evaluation of hyperkalemia in adults
18. Etiology and evaluation of hypernatremia in adults
19. Treatment of hypernatremia in adults
20. Manifestations of hyponatremia and hypernatremia in adults
21. Causes of hypotonic hyponatremia in adults
22. Diagnostic evaluation of adults with hyponatremia
23. Autosomal dominant polycystic kidney disease (ADPKD) in adults: Epidemiology, clinical presentation, and diagnosis
24. Autosomal dominant polycystic kidney disease (ADPKD): Treatment
25. Autosomal dominant polycystic kidney disease (ADPKD): Extrarenal manifestations

### Supplementary

Primer on Kidney Diseases, Greenberg et al

Nephrology Secrets (fourth edition), Lerma EV et al., Elsevier, 2019

## 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	<i>This field defines the methods used for grading students e.g. pop quiz, test, written report etc.</i>	e.g. <i>threshold number of points</i>
E.U1, E.U3, E.U12, E.U13, E.U14, E.U16, E.U17, E.U18, E.U20, E.U21, E.U24, E.U29, E.U31, E.U37, E.U38	Assessment during clinical classes, participation in clinical rounds.	
E.W1, E.W3	Final oral completion	At least 50% correct answers. Detailed information will be given at the beginning of the course.

**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*)

The course in Nephrology takes place Monday – Friday at the Department of Nephrology, Dialysis and Internal Medicine  
UCK WUM 1a Banacha St. Warsaw 02-097

Lectures:

1. Dec 10<sup>th</sup> 2024; 14<sup>50</sup>-16<sup>20</sup>; online
2. Dec 17<sup>st</sup> 2024; 14<sup>50</sup>-16<sup>20</sup>; online

Seminars:

8<sup>00</sup>-8<sup>45</sup> & 11<sup>30</sup>-13<sup>00</sup>

Seminars are held on the ground floor, in block D, in the room no 20 in UCK WUM Hospital on Banacha 1a str.

Clinical classes:

8<sup>45</sup>-11<sup>30</sup>

Students must have their own medical scrubs or lab coat, stethoscope, student's ID, shoes.

Absence (only one) can be made up for in one of the following manners: during duty at our Department, during course with another group of students or as an oral assessment of the seminar topic from the day of absence.

In the event of more absences the student has to take the course with another group of students. In certain circumstances the final decision depends on the Head of our Department.

Course coordinator: Tomasz Głogowski, MD, tel. no. 22 599 2641, e-mail address: tomasz.glogowski@wum.edu.pl

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**ATTENTION**

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.



## INTERNAL MEDICINE – ENDOCRINOLOGY

1. IMPRINT	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical science
<b>Study Profile</b>	General Academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Credit
<b>Educational Unit / Educational Units</b>	Department of Internal Diseases and Endocrinology Banacha 1a, 02-097 Warsaw Tel.: (+48 22) 599 29 75, (+48 22) 599 26 75 Faks: (+48 22) 599 19 75 e-mail: <a href="mailto:endosek@wum.edu.pl">endosek@wum.edu.pl</a> <a href="http://endokrynologia.wum.edu.pl/">http://endokrynologia.wum.edu.pl/</a>
<b>The head of unit</b>	Assoc. Prof. Urszula Ambroziak MD, PhD
<b>Course coordinator</b>	Janusz Pachucki MD. PhD e-mail: <a href="mailto:janusz.pachucki@wum.edu.pl">janusz.pachucki@wum.edu.pl</a>
<b>Person responsible for syllabus</b>	MICHAŁ POPOW MD, PhD tel. 22 599 2877; e-mail: <a href="mailto:michal.popow@wum.edu.pl">michal.popow@wum.edu.pl</a> 7D, room 767; tel: 22 599 2877 or 2975 Admission hours for students Tuesdays and Thursdays: 11.00-12.30
<b>Teachers</b>	AMBROZIAK URSZULA MD, PhD BEDNARCZUK TOMASZ PROF. MD, PhD BOBROWCZ MAŁGORZATA MD PhD GÓRALSKA MAGDALENA MD, PhD

	KUŚ ALEKSANDER MD, PhD PACHUCKI JANUSZ MD, PhD POPOW MICHAŁ MD, PhD ROŚŁON MAREK MD, PhD SKOWROŃSKA-SZCZEŚNIAK ANNA MD, PhD ZGLICZYŃSKI STANISŁAW MD
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2. BASIC INFORMATION			
<b>Year and semester of studies</b>	V year, IX & X semester	<b>Number of ECTS credits</b>	2.00
<b>FORM OF CLASSES</b>		<b>Number of hours</b>	Calculation of ECTS credits
<b>Contacting hours with academic teacher</b>			
Lecture (L)		4	0,1
Seminar (S)		16	0,8
Classes (C)		10	0,4
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		10	0.4
e-learning (e-L)		6	0,3

3. COURSE OBJECTIVES	
O1	To familiarize students with the most common diseases of the endocrine glands, their course, diagnosis, diagnosis, differentiation and therapeutic management.
O2	Preparation students for final exams in internal medicine.
O3	Checking the skills and knowledge of students in endocrinology

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING	
<b>Code and number of effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
<b>Knowledge – Graduate* knows and understands:</b>	

E.W1	environmental and epidemiological determinants of the most common illnesses;
E.W7 p. 4	reasons, symptoms, diagnostic and treatment procedures of the most frequent internal diseases and their complications in adult patients: 4) endocrine system diseases, including hypothalamus and pituitary gland, thyroid, parathyroid glands, the cortex and medulla of adrenal glands, ovaries, testicles disease, as well as neuroendocrine tumours, polyendocrine syndromes, different types of diabetes and metabolic syndrome: hypoglycaemia, obesity, dyslipidaemia,
<b>Skills– Graduate* is able to:</b>	
E.U1	collect medical history from adult patients;
E.U3	conduct a complete and targeted physical examination in adults;
E.U7	evaluate the general condition, the state of consciousness and awareness of a patient;
E.U12	perform the differential diagnosis of the most common diseases in adults and children;
E.U24	interpret laboratory test results with the identification of reasons for deviation;
E.U38	keep a patient's medical records.

\* In the appendices to the Ordinance of the Minister of Science and Higher Education of July 26, 2019, there is a mention of a "graduate" and not a student

<b>5. ADDITIONAL EFFECTS OF LEARNING (non-compulsory)</b>	
<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
<b>Knowledge – Graduate knows and understands:</b>	
K1	Epidemiological conditions of the most common diseases of the endocrine glands
K2	Understanding pathomechanisms leading to endocrine disease and, on this basis, searching for potential ways to inhibit or reverse them.
K3	Understanding of therapeutic mechanisms used in endocrinology in selected disease entities.
<b>Skills– Graduate is able to:</b>	
S1	Perform anamnesis and physical examination and differential diagnosis, interpret the results of additional tests, perform diagnostic tests and properly record
<b>Social Competencies – Graduate is ready for:</b>	
SC1	establishing and maintaining deep and respectful contact with the patient, as well as showing understanding for differences in worldviews and cultures
SC2	act in the best interest of the patient
SC3	taking actions towards the patient based on ethical principles, with awareness of social conditions and limitations resulting from the disease
SC4	compliance with medical confidentiality and patient rights



SC5	noticing and recognizing one's own limitations and making self-assessment of educational deficits and needs
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6. CLASSES		
Form of class	Class contents	Effects of Learning
The final tests	Checking students' knowledge, discussing questions and clarifying doubts about them	E.W1.,E.W7.
Seminars	Discussing the most common endocrine diseases, their pathogenesis, diagnosis and therapy	E.W1.,E.W7., E.U1., E.U3., E.U7., E.U12., E.U24.
Practical classes	Presentation of endocrine patients by assistants	E.W1.,E.W7., E.U1., E.U3., E.U7., E.U12., E.U24.
Presentation of cases by lecturers	Presentation of cases of endocrine patients	E.W1.,E.W7., E.U1., E.U3., E.U7., E.U12., E.U24.
Presentations of patients by graduates	Presentation and discussion of endocrine patients by graduates	E.W1.,E.W7., E.U1., E.U3., E.U7., E.U12., E.U24.
Discussion of a clinical case by the student - homework	Detailed reference to the given case and answers to the questions asked on the e-learning platform	E.W1.,E.W7., E.U1., E.U3., E.U7., E.U12., E.U24.

7. LITERATURE
<b>Obligatory:</b>
Basic & Clinical Endocrinology ed FS Greenspan, DG Gardner Harrison's Principles of Internal Medicine
<b>Supplementary</b>

8. VERIFYING THE EFFECT OF LEARNING		
Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
<i>Np. A.W1, A.U1, K1</i>	<p>1. Homework: 3 homework during a weekly block of classes placed on the e-learning platform <a href="https://e-learning.wum.edu.pl/">https://e-learning.wum.edu.pl/</a>, assessed on a 0-100% scale. the work must be presented in electronic form on the e-learning platform within a strictly defined period of time.</p> <p>2. Team presentation (max. 5 students) of a clinical case presentation in the form of a clinical presentation or by electronic means - assessed on a scale from 0 - 100% at one time. The presentation should include: clinical examination, initial diagnosis, differential diagnosis, analysis. The contribution of the work to preparation of the presentation will be determined by students from a given subgroup.</p> <p>3. Final written test - Multiple-choice test - 20 questions assessed on a 0-100% scale The student receives 1 point for each correct answer. The maximum possible number of points from the final test depends on the type of questions and</p>	<p><i>pass threshold - above 50% grade for achievement (3) - 51-64%</i> <i>(3.5) - 65-70%</i> <i>good grade (4) - 71-85%</i> <i>(4.5) - 85-89%</i> <i>very good rating (5) - 90-100%</i></p>

the number of correct answers to each of them in a given test, therefore it may be variable and differ for subsequent groups of students. The minimum number of correct answers to pass the final test is 50%. Passing the final test is a required condition for successfully passing the entire block.

The final grade at the end of the class is derived from:

- 60% - the result of the final test
- 20% - average homework score
- 20% - the result of the case presentation

**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*)

Attendance at all classes and seminars is mandatory. In case of absence, the student will be asked to join the next group. If this is not possible, the student will be asked to answer 4 questions about the information presented in each of the missed seminars. One must answer at least three out of four (for each of missed seminar) to pass.

Two approaches to the final test are allowed. In the case of obtaining two negative grades, the student will not receive a credit. In the event of an unsatisfactory grade, the student is entitled to a second date, i.e. another credit card, before his / her assistant with whom he / she was taking classes.

The weekly cycle of classes consists of 20 seminars and 10 hours of practical classes or, in exceptional cases, case presentations in remote electronic form.

The content of the seminars is available on the website: <https://e-learning.wum.edu.pl/>

- S1. Neuroendocrinology. Hypopituitarism
- S2. Active and non-active pituitary adenomas
- S3. Primary hyperthyroidism and hypothyroidism
- S4. Nodular disease of the thyroid gland
- S5. Adrenal insufficiency
- S6. Cushing's syndrome, hyperandrogenism, hyperaldosteronism.
- S7. Neuroendocrine tumors and multi-glandular neoplastic syndromes
- S8. Disorders of parathyroid function and calcium-phosphate metabolism
- S9. Obesity and lipid disorders
- S10. Emergences in endocrinology

Two lectures will be presented :

1. Nov. 26<sup>th</sup> 2024; 14<sup>50</sup>-16<sup>30</sup>; Paw. 01, ul. Pawińskiego 7 or on MS Teams
2. Dec. 03<sup>rd</sup> 2024; 14<sup>50</sup>-16<sup>30</sup>; Paw. 01, ul. Pawińskiego 7 on MS Teams

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**ATTENTION**

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.



## Neurosurgery

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical science
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	full-time studies
<b>Type of module/ course</b>	obligatory
<b>Form of verification of learning outcomes</b>	credit
<b>Educational Unit / Educational Units</b>	Department of Neurosurgery (WLS26) – Medical University of Warsaw 80 Ceglowska St., 01-809 Warsaw, Poland Phone: +48 22 -8350005; fax: +48 22-865-6057 e-mail: <a href="mailto:neurochirurgia@bielanski.med.pl">neurochirurgia@bielanski.med.pl</a>
<b>Head of Educational Unit / Heads of Educational Units</b>	Radosław Michalik MD PhD
<b>Course coordinator</b>	Ewa Szczepek Assoc. prof MD PhD, e-mail: <a href="mailto:ewa.szczepek@wum.edu.pl">ewa.szczepek@wum.edu.pl</a>
<b>Person responsible for syllabus</b>	Ewa Szczepek Assoc. prof MD PhD, e-mail: <a href="mailto:ewa.szczepek@wum.edu.pl">ewa.szczepek@wum.edu.pl</a>
<b>Teachers</b>	<ol style="list-style-type: none"> <li>1 dr n med Michalik Radosław</li> <li>2 dr n med Jacek Bogucki</li> <li>3 lek. Kaja Salamon</li> <li>4 lek Daniel Długosz</li> <li>5 lek Piotr Izdebski</li> </ol>

	6 lek. Tomasz Wójcikiewicz 7 lek Andrzej Styk
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<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	5 year, 10 semester	<b>Number of ECTS credits</b>	2.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)			
Seminar (S)		10	0.25
Classes (C)		20	1.0
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		20	0.75

<b>3. COURSE OBJECTIVES</b>	
O1	To get acquainted with medical issues in the diagnosis and therapeutic methods in Neurosurgical Department.
O2	Acquiring additional knowledge and competence to solve neurosurgical problems.
O3	Obtaining additional competence in diagnosis and therapy.

<b>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)</b>	
<b>Code and number of effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>

**Knowledge – Graduate\* knows and understands:**

F.W13 p. 1-6	causes, symptoms, principles of diagnosis and therapeutic treatment in the case of the most common diseases of the central nervous system in terms of: 1) cerebral oedema and its consequences with a particular reference to emergencies, 2) other forms of intracranial narrowness with their consequences, 3) cranial-cerebral injuries, 4) vascular defects of the central nervous system, 5) tumours of the central nervous system,
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	6) diseases of the spine and spinal cord;
F.W15	principles of suspecting and recognising the brain death

**Skills– Graduate\* is able to:**

F.U22	assess an unconscious patient according to the international point scales
F.U3	observe the rules of asepsis and antisepsis
F.U12	monitor perioperative care with the aid of basic vital signs
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)**

<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
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**Knowledge – Graduate knows and understands:**

K1	
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**Skills– Graduate is able to:**

S1	
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**Social Competencies – Graduate is ready for:**

SC1	
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**6. CLASSES**

Form of class	Class contents	Effects of Learning
SEMINARS CLASSES	<p><b>S1 – Seminar 1.</b>  <i>Topic: Introduction of Neurosurgical Department.</i>  <b>Intracranial volume – pressure relationships. Monro – Kellie rule.</b>  <i>Symbol of learning outcome/s: W1</i></p> <p><b>C1-Practical Class 1.</b>  <i>Topic: Case presentations and neurosurgical symptoms intracranial volume – pressure relationships.</i>  <i>Symbol of learning outcome/s: W1, U1, U2</i></p> <p><b>S2 – Seminar 2.</b>  <i>Topic: Neurotraumatology.</i></p>	F.W13 p. 1-6, F.W15 F.U3, F.U12, F.U21, F.U22

	<p><i>Symbol of learning outcome/s: W2, W7</i></p> <p><b>C2-Practical Class 2.</b>  <i>Topic: Case presentations craniocerebral injuries. Neurosurgical Symptoms. Diagnostic procedures. Treatment</i></p> <p><b>S3 – Seminar 3.</b>  <i>Topic: Neurooncology in Neurosurgery.</i>  <i>Symbol of learning outcome/s: W3</i></p> <p><b>C3-Practical Class 3.</b>  <i>Topic: Case presentations. Neurosurgical Symptoms. Diagnostic procedures. Treatment Neurooncology in Neurosurgery.</i>  <i>Symbol of learning outcome/s: W3, U1,U2,U3.</i></p> <p><b>S4 – Seminar 4.</b>  <i>Topic: Vascular Diseases in Neurosurgery. Intracranial bleeding. Intracranial Aneurysm. Angiomas (AVMs). Diagnostic procedures. Surgical vs endovascular aspects of treatment in Neurosurgery.</i>  <i>Symbol of learning outcome/s: W4</i></p> <p><b>C4-Practical Class 4.</b>  <i>Topic: Case presentations. Neurosurgical Symptoms. Diagnostic procedures. Treatment Vascular Diseases in Neurosurgery.</i>  <i>Symbol of learning outcome/s: W4, U1,U2,U3,U4.</i></p> <p><b>S5 – Seminar 5.</b>  <i>Topic: Disorders of the circulation of cerebrospinal fluid - spinal /Hydrocephalus/.</i>  <i>Symbol of learning outcome/s: W5</i></p> <p><b>C5-Practical Class 5.</b>  <i>Topic: Case presentations. Diagnosis and treatment options hydrocephalus.</i>  <i>Symbol of learning outcome/s: W5, U2, U3</i></p> <p><b>S6 – Seminar 6.</b>  <i>Topic: Degeneration disc disease. Degenerative spine disease. Recapitulation Head of the Department.</i>  <i>Symbol of learning outcome/s: W6</i></p> <p><b>C6-Practical Class 6.</b>  <i>Topic: Case presentations degeneration disc disease and degenerative spine disease. Pathology and treatment neurosurgery.</i>  <i>Symbol of learning outcome/s: W6, U2</i></p>	
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<b>7. LITERATURE</b>
<b>Obligatory</b>
Neurology and Neurosurgery Illustrated, Kenneth W Lindsay, Ian Bone, Geraint Fuller, Churchill Livingstone/ Elsevier, 5 Edition.
<b>Supplementary</b>

<b>8. VERIFYING THE EFFECT OF LEARNING</b>		
<b>Code of the course effect of learning</b>	<b>Ways of verifying the effect of learning</b>	<b>Completion criterion</b>

F.W13 p. 1-6, F.W15 F.U3, F.U12, F.U21, F.U22	Practical skills examination	Positive evaluation of the teaching assistant
F.W13 p. 1-6, F.W15 F.U3, F.U12, F.U21, F.U22	Final colloquium ( 30 MCQ test questions).	threshold number of points - 30 good answers
F.W13 p. 1-6, F.W15 F.U3, F.U12, F.U21, F.U22	Final exam in winter/ spring exam session ( 100 MCQ)	<b>2.0 (failed)</b> 0-17 points from the test <b>3.0 (satisfactory)</b> 18-20 points from the test <b>3.5 (rather good)</b> 21-22 points from the test <b>4.0 (good)</b> 23-25 points from the test <b>4.5 (more than good)</b> 26-28 points from the test <b>5.0 (very good)</b> 29-30 points from the 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*)

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**ATTENTION**

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.



## Pediatric – Nephrology

### 1. IMPRINT

<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical science
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Credit
<b>Educational Unit / Educational Units</b>	Department of Pediatrics and Nephrology 1WI Children's Hospital 63A Żwirki i Wigury St. 02-091 Warsaw Phone: 48 22 317 96 53
<b>Head of Educational Unit / Heads of Educational Units</b>	Associate Professor Małgorzata Pańczyk- Tomaszewska MD PhD
<b>Course coordinator</b>	Jarosław Sołtyski MD PhD e-mail: <a href="mailto:jsoltyski@wum.edu.pl">jsoltyski@wum.edu.pl</a>
<b>Person responsible for syllabus</b>	Jarosław Sołtyski MD PhD e-mail: <a href="mailto:jsoltyski@wum.edu.pl">jsoltyski@wum.edu.pl</a>
<b>Teachers</b>	Małgorzata Pańczyk- Tomaszewska MD PhD Małgorzata Mizerska- Wasiak MD PhD Maria Daniel MD Anna Ozimek MD



	Piotr Skrzypczyk MD PhD Jarosław Sołtyski MD PhD Agnieszka Szmigielska MD PhD Agnieszka Turczyn MD Anna Deja MD Michał Szyszka MD Adam Bujanowicz MD Katarzyna Smyk MD
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<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	V year, 9 & 10 semester	<b>Number of ECTS credits</b>	2.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)		5	0.1
Seminar (S)		10	0.5
Classes (C)		15	1.0
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		10	0.4

<b>3. COURSE OBJECTIVES</b>	
O1	The aim of the course is to achieve and preserve knowledge about the principles of the assesment, differrential diagnosis and treatment of the disease within the following areas of Pediatrics: Pediatric Nephrology
O2	
O3	

<b>4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING</b>	
<b>Code and number of effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
<b>Knowledge – Graduate* knows and understands:</b>	

G.K1/ E.W1	Knowledge of environmental and epidemiological circumstances of the most often seen diseases within the following areas of Pediatrics: Pediatric Nephrology/ E.W1: environmental and epidemiological determinants of the most common illnesses
G.K2/ E.W3, 6	Basic knowledge of pediatric nephrology: development, structure and function of kidneys, congenital anomalies of kidneys and urinary tract, urinary tract infections, nephrotic syndrome and glomerulonephritis, nephropathies: in systemic lupus erythematosus, IgA vasculitis and other systemic diseases, urolithiasis, hemolytic-uremic syndrome, acute kidney injury, chronic kidney disease with renal replacement therapy, arterial hypertension/ E.W3, 6: causes, symptoms, principles of diagnosis and therapeutic treatment of the most common diseases in children: congenital anomalies of kidneys and urinary tract, urinary tract infections, nephrotic syndrome and glomerulonephritis, nephropathies: in systemic lupus erythematosus, IgA vasculitis and other systemic diseases, urolithiasis, hemolytic-uremic syndrome, acute kidney injury, chronic kidney disease with renal replacement therapy, arterial hypertension

**Skills– Graduate\* is able to:**

G.S1	Ability to make a diagnosis, based on child's medical history, findings in physical examination along with additional tests and images
G.S2	Ability to differentiate abnormal findings in anamnesis and physical examination within following areas of pediatric nephrology
E.U2	collect medical history from a child and its family
E.U4	conduct a physical examination of children of any age
E.U7	evaluate the general condition, the state of consciousness and awareness of a patient
E.U9	compare percentile charts with anthropometric and blood pressure measurements
E.U10	evaluate the grade of sexual development
E.U12	perform the differential diagnosis of the most common diseases in adults and children
E.U13	assess and describe the patient's somatic and psychological states
E.U14	recognise immediate threats to life
E.U15	recognise states under the influence of alcohol, drugs and other stimulants
E.U16	plan diagnostic, therapeutic and preventive treatment
E.U17	analyse the side effects of particular medicines and interactions between them
E.U18	propose the individualisation of applicable therapeutic guidelines and alternative treatment in the case of ineffectiveness or contraindications to standard therapy
E.U20	qualify patients for home and hospital treatment
E.U21	recognise the conditions in which life expectancy, functional patient state or preferences limit the treatment according to the guidelines for a given disease
E.U24	interpret laboratory test results with the identification of reasons for deviation
E.U25	use feeding protocols (enteral and parenteral)
E.U27	qualify a patient for vaccinations

E.U32	plan specialist consultations
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\* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.

<b>5. ADDITIONAL EFFECTS OF LEARNING (non-compulsory)</b>	
<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
<b>Knowledge – Graduate knows and understands:</b>	
K1	Importance of profound analysis of pediatric patient problems
K2	Use of objective sources of medical knowledge/ sciences
<b>Skills– Graduate is able to:</b>	
S1	Have a good contact with patients and parents
S2	Understand different background of patients and their parents
<b>Social Competencies – Graduate is ready for:</b>	
SC1	Cooperate in a group of professionals in a process of diagnosis and treatment
SC2	Be responsible for decisions in a therapeutic process

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
Lectures	Congenital anomalies of the kidney and the urinary tract Kidney involvement in systemic disease Urolithiasis	E.W1, E.W3 p. 6
Seminars	Laboratory tests and diagnostic imaging in pediatric nephrology Hematuria and proteinuria Nephrotic syndrome Glomerulonephritis Urinary tract infections Acute kidney injury Hemolytic uremic syndrome Chronic kidney disease Arterial hypertension Urinary disturbances	E.W1, E.W3 p. 6, G.S1, G.S2, E.U2, E.U4, E.U7, E.U9, E.U10, E.U12, E.U13, E.U14, E.U15, E.U16, E.U17, E.U18, E.U20, E.U21, E.U24, E.U25, E.U27, E.U32  During the seminars teachers will check understanding of the topic problems
Classes	Practical bedside classes with appointed teacher	G.S1, G.S2, E.U2, E.U4, E.U7, E.U9, E.U10, E.U12, E.U13, E.U14, E.U15, E.U16, E.U17, E.U18, E.U20, E.U21, E.U24, E.U25, E.U27, E.U32  Evaluate the practical knowledge of physical examination and analysis of symptoms

## 7. LITERATURE

### Obligatory

Nelson Essentials of Pediatrics, 9th ed, Marcdante K, Kliegman RM, Schuh AM, Elsevier Health Sciences, 2022

### Supplementary

Nelson Textbook of Pediatrics, 22th ed, Kliegman RM, St. Geme III JW, Elsevier Health Sciences, 2024

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
<i>e.g. G.K1, G.S1, K1</i>	Active participation in lectures and seminars Oral colloquium or test	At least satisfactory acquisition of outcomes corresponding to the subject
	Bedside classes	At least satisfactory acquisition of abilities in bedside classes according to the direct teacher's assessment

## 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)*

White coat and footwear change is required during bedside classes

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### ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers



## Pediatrics Hematology and Oncology

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Credit
<b>Educational Unit / Educational Units</b>	Department of Pediatrics Hematology and Oncology WUM (1WG) Children's Hospital Zwirki i Wigury 63A 02 091 Warsaw Phone: 48 22 317 96 21, 20
<b>Head of Educational Unit / Heads of Educational Units</b>	Prof. Paweł Łaguna MD PhD
<b>Course coordinator</b>	Prof. Iwona Malinowska MD PhD iwona.malinowska@wum.edu.pl
<b>Person responsible for syllabus</b>	Prof. Iwona Malinowska MD PhD iwona.malinowska@wum.edu.pl
<b>Teachers</b>	Iwona Malinowska MD PhD Katarzyna Pawelec MD PhD Magdalena Wołowiec MD PhD Bartosz Chyżyński MD PhD

<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	5 <sup>th</sup> year; 9 & 10 semester	<b>Number of ECTS credits</b>	2.00
<b>FORMS OF CLASSES</b>			

Contacting hours with academic teacher	Number of hours	ECTS credits calculation
Lecture (L)	5	0,1
Seminar (S)	10	0,5
Classes (C)	15	1,0
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
<b>Unassisted student's work</b>		
Preparation for classes and completions	10	0,4

### 3. COURSE OBJECTIVES

O1	The aim of the course is to achieve knowledge about the principles of the assessment, differential diagnosis and treatment of hematological and oncological disorders of childhood.
O2	

### 4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of the effect of learning in accordance with standards of learning	Effects in the field of:
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#### Knowledge – Graduate\* knows and understands:

G.K1	Knowledge of environmental and epidemiological circumstances of the most often seen diseases within the following areas of pediatric hematology and oncology
G.K2	Basic knowledge of pediatric hematology and oncology: anemia in children, hemophilia, lymphadenopathy, hemorrhagic diathesis, thrombosis in children, neutropenia in children, leukemia, solid tumors in children, transfusion of blood products
E.W1	environmental and epidemiological determinants of the most common illnesses
E.W3, 4	causes, symptoms, principles of diagnosis and therapeutic treatment of the most common diseases in children: 4. anaemia, bleeding diatheses, marrow failure, cancers in children, including solid tumours typical of childhood
E.W4	the following terms: battered child, sexual harassment, mental retardation, conduct disorders: psychoses, addictions, eating and excretion disorders in children

#### Skills– Graduate\* is able to:

G.S1	Ability to make a diagnosis based on child's medical history, findings in physical examination along with additional tests and imaging
------	--

G.S2	Ability to differentiate abnormal findings in anamnesis and physical examination within following areas of pediatric hematology and oncology.
E.U2	collect medical history from a child and its family
E.U4	conduct a physical examination of children of any age
E.U6	conduct an explanatory examination of hearing and the field of vision, as well as an otoscopic examination
E.U7	evaluate the general condition, the state of consciousness and awareness of a patient
E.U9	compare percentile charts with anthropometric and blood pressure measurements
E.U10	evaluate the grade of sexual development
E.U12	perform the differential diagnosis of the most common diseases in adults and children
E.U20	qualify patients for home and hospital treatment
E.U24	interpret laboratory test results with the identification of reasons for deviation
E.U27	qualify a patient for vaccinations

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

<b>5. ADDITIONAL EFFECTS OF LEARNING (non-compulsory)</b>	
<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
<b>Knowledge – Graduate knows and understands:</b>	
K1	
<b>Skills– Graduate is able to:</b>	
S1	
<b>Social Competencies – Graduate is ready for:</b>	
SC1	

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
Lectures	Acquired aplastic anemia Hematopoietic stem cell transplantation in children Bone marrow insufficiency	E.W.1 E.W.3 E.W.4
Seminars	Anemia in children Lymphadenopathy Hemophilia Other hemorrhagic diathesis in children Lymphoma in children Leukemia in children Thrombosis in children Neutropenia in children Solid tumors in children Hemophagocytic syndrome in children	E.W.1 E.W.3 E.W.4

Bedside classes	Training of practical, signs and symptoms assessment as well as diagnosis in pediatric hematology and oncology	E.U.2, E.U.4, E.U.6, E.U.7, E.U.9, E.U.10, E.U.12, E.U.20, E.U.24, E.U.27
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## 7. LITERATURE

### Obligatory

1. Nelson Essentials of Pediatrics, 7<sup>th</sup> ed, Marc Dante K, Kliegman RM; W.B. Saunders Company, 2015
2. Illustrated Text book of Pediatrics, 4<sup>th</sup> ed, Lissauer T, Clayden G; Mosby Ltd., 2012

### Supplementary

1. Nelson Textbook of Pediatrics, 20<sup>th</sup> ed, Kliegman, Stanton, St.Geme, Schor; W.B. Saunders Company, 2015

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
<i>e.g. G.K1, G.S1, K1</i>	Active participation in seminars, lecture, rounds in oncology division. Oral colloquium	At least satisfactory acquisition of outcomes corresponding to the subject
	Bedside classes	At least satisfactory acquisition of abilities in bedside classes according to the direct teacher's assessment.

## 9. ADDITIONAL INFORMATION

**the number of acceptable tries for passing a subject -3**

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### ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.





## Obstetrics and gynecology

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Credit
<b>Educational Unit / Educational Units</b>	<b>(1W61)</b> II Department of Obstetrics and Gynecology, MUW 2 Karowa St., 00-315 Warsaw Phone: 48 22 59 66 421, e-mail: <a href="mailto:agnieszka.paduch@szpitalkarowa.pl">agnieszka.paduch@szpitalkarowa.pl</a>
<b>Head of Educational Unit / Heads of Educational Units</b>	Prof. Krzysztof Czajkowski, MD, PhD <b>(1W61)</b>
<b>Course coordinator</b>	Joanna Kacperczyk-Bartnik, MD, PhD <a href="mailto:joanna.kacperczyk-bartnik@wum.edu.pl">joanna.kacperczyk-bartnik@wum.edu.pl</a> <b>(1W61)</b>
<b>Person responsible for syllabus)</b>	<b>(1W61)</b> Joanna Kacperczyk-Bartnik, MD, PhD <a href="mailto:joanna.kacperczyk-bartnik@wum.edu.pl">joanna.kacperczyk-bartnik@wum.edu.pl</a>
<b>Teachers</b>	<b>(1W61)</b> Assoc. Prof. Jacek Sieńko, MD PhD; Assoc. Prof. Ewa Romejko-Wolniewicz, MD PhD; Assoc. Prof. Justyna Teliga-Czajkowska, MD PhD; Magdalena Broś-Konopielko, MD PhD; Agnieszka Dobrowolska-Redo, MD PhD; Joanna Kuran-Ohde, MD PhD; Dariusz Madajczak, MD PhD; Anna Dańska-Bidzińska, MD PhD;

	Joanna Piechota, MD PhD; Paweł Bartnik, MD PhD; Ewa Janowska, MD; Joanna Kacperczyk-Bartnik, MD PhD; Aleksandra Urban, MD; Klaudia Klicka, MD; Monika Pasieczna MD; Piotr Świderczak MD
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<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	V year, summer semester	<b>Number of ECTS credits</b>	9.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)			
Seminar (S)		20	1.00
Classes (C)		120	5.00
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		75	3.00

<b>3. COURSE OBJECTIVES</b>	
O1	To obtain the theoretical knowledge on physiology and pathology of the pregnancy and the delivery as well as physiopathology of the neonatal period.
O2	To obtain practical ability of obstetrical examination of women during pregnancy, labor and puerperium.
O3	To obtain practical ability in management of normal and complicated delivery.
O4	To gain basic training in management of obstetrical emergencies.
O5	To gain basic knowledge about endocrinology.
O6	To gain practical basic skills in the field of obstetrics.

<b>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)</b>	
<b>Code and number of effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>

**Knowledge – Graduate\* knows and understands:**

G.K1	F.W9 p. 2 reproductive functions of women, any related disorders and diagnostic and therapeutic actions concerning in particular: pregnancy. Graduate is able to diagnose and monitor physiological and pathological pregnancy.
G.K2	F.W9 p. 3 Graduate is able to diagnose and monitor physiological and pathological childbirth,
G.K3	F.W9 p. 3 Student knows the puerperium development and complications during puerperium.
G.K4	F.W9 p. 1 Student is able to diagnose menstrual cycle and its disorders.

**Skills– Graduate\* is able to:**

G.S1	F.U15 Graduate is able to interpret CTG monitoring.
G.S2	F.U16 recognize the beginning of delivery and improper delivery duration;
G.S2	F.U13 recognize the signs and symptoms proving an improper course of pregnancy (abnormal bleedings, contractile activity of the uterus);
G.S2	F.U14 interpret the results of a physical examination of a pregnant woman (blood pressure, heart function of the foetus's mother) and the results of laboratory tests proving pregnancy pathologies;
G.S3	F.U17 Graduate is able to interpret the signs and symptoms during puerperium;
G.S4	F.U18 Graduate knows indications and contraindications to use contraceptives.

\* 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)**

<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
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**Knowledge – Graduate knows and understands:**

K1	Student respects medical confidentiality and patient's rights.
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**Skills– Graduate is able to:**

S1	Student is guided by the good of the patients, putting them in the foreground.
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**Social Competencies – Graduate is ready for:**

SC1	Able to establish and maintain a deep and respectful contact with the patient.
SC2	Able to establish and maintain a deep and respectful contact with the therapeutic team.

**6. CLASSES**

Form of class	Class contents	Effects of Learning
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Seminar (S)	S1. Diagnosis of the pregnancy. Physiological changes during pregnancy development. Methods of electronic (CTG,USG) and biochemical monitoring in pregnancy and labour.	G.K1, G.S1
	S2. Pregnancy in diabetic woman. Liver diseases in pregnancy.	G.K1, G.S2
	S3. Uterine function disorders: atony- diagnosis & treatment. Rupture of the uterus. Post-term pregnancy and induction of labour.	G.K1, G.K2, G.S2
	S4. Haemostasis and coagulation disorders in pregnancy. Shock in obstetrics. Premature ablation of the placenta. Intrauterine fetal death. Amniotic fluid embolus.	G.K1, G.K2, G.S2
	S5. Physiopathology of the newborn.	G.K1, G.K2, G.S2, G.S3
	S6. Abortion- classification, diagnosis and treatment. Incompetent cervix- diagnosis and treatment. Premature labour- treatment. The puerperium- normal changes and complications.	G.K1, G.S2
	S7. Rh incompatibility. Life threatening and emergency cases in obstetrics.	G.K1, G.K2, G.S2
	S8. Heart diseases in pregnancy. Anaemia in pregnancy. Infectious diseases in pregnancy. Physiotherapy in obstetrics.	G.K1, G.S2 G.K4, G.S4
	S9. PIH and Eclampsia. Urinary tract infections in pregnancy.	
	S10. Management of normal vaginal delivery. Breech presentation. Abnormal position and lie of fetus. Use of forceps and vacuum.	
Classes (C)	Clinical practice in wards, practical classes with phantom demonstrations	G.S1-G.S4
e-learning (e-L)	Optional synchronous learning and asynchronous learning in online education via e-learning.wum.edu.pl, Microsoft Teams, Zoom (seminars only)	

## 7. LITERATURE

### Obligatory

1. Llewelyn- Jones D.: "Fundamentals of Obstetrics and Gynaecology" Elsevier Limited, 2017.

### Supplementary

- Contemporary student's textbook of obstetrics and gynaecology edited in United States or the United Kingdom may be accepted.
- Crash Course 4<sup>th</sup> Edition, Obstetrics and Gynaecology. Elsevier Limited, 2019.
- Brian A. Magowan. Clinical Obstetrics and Gynaecology. 4<sup>th</sup> Edition. Elsevier Limited 2019.
- Kate V. Meriwether. Obstetrics and Gynaecology Morning Report. Elsevier 2018.
- Hao-Hua Wu. Gunner Googles. Augmented 1<sup>st</sup> Edition. Obstetrics and Gynaecology. Elsevier 2019.
- John Guillebaud. 7<sup>th</sup> Edition Contraception. Elsevier 2017.

## 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	<i>This field defines the methods used for grading students e.g. pop quiz, test, written report etc.</i>	e.g. threshold number of points
G.K1- G. K4; G.S1- G.S4; K1, S1; SC1	Complete the entire course and attendance at all classes with the exception of one permitted absence during the course. Student's presence confirmed in the student's card (S+PC) + positive result of the test	Normal Distribution (Gaussian Distribution)

## 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 is obliged to read the syllabus and time- table on the notice board in the department.
2. The student participate in classes (seminars and practice) only with the group. Possible group change is allowed in exceptional, justified situations and requires individual approval (e-mail: <a href="mailto:joanna.kacperczyk-bartnik@wum.edu.pl">joanna.kacperczyk-bartnik@wum.edu.pl</a> )
3. The student is obliged to follow the Medical University of Warsaw Regulations (available on the University's website).
4. During classes with patients, students keep seriousness and silence.
5. Meals and drinks should be consumed during breaks.
6. Students are obliged to obey the rules regarding participation in the Operating Theatre activities (provided by course coordinator)
7. Students interested in additional learning opportunities in obstetrics and gynecology are welcome to the Students' Scientific Group affiliated to II Department of Obstetrics and Gynecology (contact: <a href="mailto:joanna.kacperczyk-bartnik@wum.edu.pl">joanna.kacperczyk-bartnik@wum.edu.pl</a> )

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**ATTENTION**

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.



## Surgery

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical science
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full-time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Completion
<b>Educational Unit / Educational Units</b>	2nd Department of General, Vascular and Oncological Surgery (WLS19) Czerniakowski Hospital  19/25 Stępińska St., 00-739 Warsaw
<b>Head of Educational Unit / Heads of Educational Units</b>	Mariusz Frączek MD, PhD, Profesor
<b>Course coordinator</b>	Mariusz Frączek MD, PhD, Profesor; mariusz.fraczek@wum.edu.pl
<b>Person responsible for syllabus</b>	Małgorzata Polańska- Płachta MD, PhD; e-mail: malgorzata.polanska-plachta@wum.edu.pl Łukasz Kaczorowski MD; e-mail: lukasz.kaczorowski@wum.edu.pl
<b>Teachers</b>	Lubna Al-Hamdani MD; lubna.al-hamdani@wum.edu.pl Mateusz Burdzel MD; mateusz.burdzel@wum.edu.pl Katarzyna Cybula MD; Magdalena Czerwińska MD; magdalena.czerwinska@wum.edu.pl Mariusz Frączek MD PhD, Profesor; mariusz.fraczek@wum.edu.pl Łukasz Kaczorowski MD; lukasz.kaczorowski@wum.edu.pl Klaudia Kwiatek MD; Agnieszka Kwiatkowska MD; agnieszka.kwiatkowska@wum.edu.pl Aneta Obcowska-Hamerska MD PhD; aneta.obcowska-hamerska@wum.edu.pl Agata Pomianowska MD; agata.paszko@wum.edu.pl Małgorzata Polańska-Płachta MD PhD; malgorzata.polanska-plachta@wum.edu.pl Zoran Stojčev, MD, PhD, Assoc. Prof

	Magdalena Szczotko MD; Magdalena Tytkie MD; Mariusz Wyleżoń MD, PhD, Assoc. Prof; Gabriel Zaremba-Wróblewski MD; Simon Ziemka MD; simon.ziemka@wum.edu.pl
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<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	5 <sup>th</sup> year, winter/spring semester	<b>Number of ECTS credits</b>	7.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)		0	0
Seminar (S)		35	2,3
Discussions (D)		65	4,7
e-learning (e-L)		0	0
Practical classes (PC)		0	0
Work placement (WP)		0	0
<b>Unassisted student's work</b>			
Preparation for classes and completions			

<b>3. COURSE OBJECTIVES</b>	
O1	Student takes medical history. Student assesses general condition of the patient, their consciousness and awareness. Student describes patient's somatic complaints. Student performs full medical examination. Student makes differential diagnosis.
O2	Student knows and understands signs and symptoms, diagnosis and management of the most common diseases that require surgical treatment
O3	Student knows indications, complications of the most common types of surgeries
O4	Student assists in typical surgery. Student is able to use basic surgical tools. Student obeys to rules of asepsis and antysepsis. Student knows safety rules of preoperative and postoperative patient's management.
O5	Student participates in basic medical procedures.

<b>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)</b>	
<b>Code and number of effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
<b>Knowledge – Graduate* knows and understands:</b>	
F.W1	Student knows and understands signs and symptoms, diagnosis and management of the most common diseases that require surgical treatment: a) Acute and chronic abdominal diseases b) Thoracic diseases c) Head trauma

	d) Politrauma
F.W3	Student knows indications, complications of the most common types of surgeries
F.W4, F.W5	Student knows safety rules of preoperative and postoperative patient's management.
<b>Skills– Graduate* is able to:</b>	
E.U1, F.W1, F.W10, F.W13	Student takes medical history. Student assesses general condition of the patient, their consciousness and awareness. Student describes patient's somatic complaints.
E.U3, F.U6	Student performs full medical examination.
F.W10, F.W13, E.U16	Student makes differential diagnosis.
F.U1	Student assists in typical surgery.
F.U2	Student is able to use basic surgical tools.
F.U3	Student obeys to rules of asepsis and antysepsis.
F.U5, F.U12, F.U21, F.U22, E.U7, E.U29	Student participates in basic medical procedures e.g.: a) Vital signs monitoring, b) Intramuscular and subcutaneous injections, collects blood samples from peripheral veins, c) Bladder catheter placing in men and women
D.U15	Student cares about patient's rights i.e. protects his privacy, respects his right for intimacy, right for information about his health.
D.W4, D.U5, D.U12	Student respects physician- patient privilege.

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

<b>5. ADDITIONAL EFFECTS OF LEARNING (non-compulsory)</b>	
<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
<b>Knowledge – Graduate knows and understands:</b>	
K1	-
<b>Skills– Graduate is able to:</b>	
S1	-
<b>Social Competencies – Graduate is ready for:</b>	
SC1	-

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
Practical classes (PC)	PC1- Physical examination and medical history taking. PC2- Medical case presentation. PC3- Participation in the medical procedures undertaken on the ward, postoperative room. PC4- Participation in surgeries. PC5- Outpatient Department. PC6- Basic suturing techniques. PC7- Ultrasound imaging as a diagnostic and therapeutic tool.	



Seminar (S)	S1- Preoperative and postoperative problems in surgical patient care. S2- Surgical wounds care and surgical technique. S3- Abdominal hernias S4- Head trauma S5- Gastrointestinal bleeding. S6- Acute pancreatitis. S7- Gallstones and chronic cholecystitis. S8- Colon cancer. S9- DVT S10- Spleen surgery S11- Ileus S12- Peptic ulcer disease S13- Appendicitis S14- Introduction to trauma S15- Atherosclerosis obliterans. Aneurysms.	
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<b>7. LITERATURE</b>
<b>Obligatory</b>
Principles and Practice of Surgery. O. James Garden et al. Elsevier, 7th Edition
<b>Supplementary</b>
-

<b>8. VERIFYING THE EFFECT OF LEARNING</b>		
Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
PC1-PC7	Students are assessed on the grounds of their regular attendance at seminars and active participation in bedside classes	Attendance
S1-S15	MCQ test	At least satisfactory result of the MCQ test provided on the last day of the course (12/20).

<b>9. ADDITIONAL INFORMATION</b> ( <i>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</i> )
<p><b>Didactics and organization of the classes:</b></p> <ul style="list-style-type: none"> <li>- realization of the program will be based on seminars presenting the current state of knowledge in specific subject and practical classes in clinical wards, out-patients clinics, operation theater</li> <li>- classes start at 9 a.m and continue until 2 p.m. (including half- an- hour- break)</li> <li>- students are expected to have their own lab coat, stethoscope, student's ID, shoes</li> <li>- to complete the course students are expected to pass a test composing of 20 questions (a minimum of 12 correct answers is needed to pass the test). MCQ test covers program based on seminars and practical classes</li> <li>- student's absences should be worked out on duties in terms coordinated by tutor; only 2 absences are allowed to be worked out. There is no credit for the student who was missing more practical classes or seminars</li> </ul> <p><b>Surgery Club</b>  Surgery Club is directed to English Division students. Tutors of the club are M. Polańska- Płachta MD PhD, Łukasz Kaczorowski MD. Meetings are held twice a month. Members of the club are allowed to participate in medical duties and have the possibility to write medical papers, case reports which are then presented on student's conferences.</p>

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## Rehabilitation

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical science
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module/ course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Credit
<b>Educational Unit / Educational Units</b>	Department of Rehabilitation, University Clinical Center of Medical University of Warsaw Banacha 1a Str., 02-097 Warsaw, phone: 22 599 25 63 e-mail: <a href="mailto:marzena.pietrzak@uckwum.pl">marzena.pietrzak@uckwum.pl</a> <a href="https://uckwum.pl/spcsc/zaklad-rehabilitacji/">https://uckwum.pl/spcsc/zaklad-rehabilitacji/</a>
<b>Head of Educational Unit / Heads of Educational Units</b>	Prof. dr hab. n. med. Witold Rongies
<b>Course coordinator</b>	Karen Shahnazaryan, PhD E-mail: <a href="mailto:karen.shahnazaryan@wum.edu.pl">karen.shahnazaryan@wum.edu.pl</a>
<b>Person responsible for syllabus</b>	Agnieszka Lewińska, MSc E-mail: <a href="mailto:agnieszka.lewinska@wum.edu.pl">agnieszka.lewinska@wum.edu.pl</a>
<b>Teachers</b>	Aleksandra Bogusz MSc, Adam Boniszewski MSc, Ewa Kobiela MSc, Agnieszka Lewińska MSc, Karen Shahnazaryan, PhD;

<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	V year, IX & X semester	<b>Number of ECTS credits</b>	<b>1.00</b>
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)		0	0
Seminar (S)		10	0.4
Classes (C)		20	0.6
e-learning (e-L)		0	0
Practical classes (PC)		0	0
Work placement (WP)		0	0
<b>Unassisted student's work</b>			
Preparation for classes and completions		15	0

<b>3. COURSE OBJECTIVES</b>	
O1	Introduction to the basics of medical rehabilitation
O2	Recognise various physical disabilities and functional limitations experienced by people who receive rehabilitation services
O3	Identify generic and specialized resources available to serve people with disabilities
O4	Identify the roles of different professionals in the field of rehabilitation
O5	Develop basic rehabilitation service delivery skills - Describe rehabilitation process and techniques used to evaluate eligibility for services - Develop appropriate treatment plans, and provide follow-up

**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*)

<b>Code and number of effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> ( <i>in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019</i> )
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**Knowledge – Graduate\* knows and understands:**

E.W30.	The concept of disability and invalidity
E.W31.	The role of medical rehabilitation and methods used within the course of medical rehabilitation process

**Skills– Graduate\* is able to:**

E.U22.	Perform a functional assessment of a patient with disability
E.U23.	Propose rehabilitation program in the most common diseases

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

<b>5. ADDITIONAL EFFECTS OF LEARNING (non-compulsory)</b>	
<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
<b>Knowledge – Graduate knows and understands:</b>	
O.W3.	Diagnostic and therapeutic methods appropriate for specific disease states
<b>Skills – Graduate is able to:</b>	
O.U8.	Communicate with colleagues in the team and share knowledge
<b>Social Competencies – Graduate is ready for:</b>	
O.K5	Noticing and recognizing own limitations and self-assessment of deficits and educational needs
O.K7	The use of objective sources of information
O.K9	Implementing the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multi-national environment

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
Seminar	The principles of medical rehabilitation Rehabilitation programs' organization Physiotherapeutic methods used in medical rehabilitation	E.W30.; E.W31.; E.U22.; E.U23.; O.W3.; O.K5; O.K7;
Classes	Physiotherapy in an outpatient - kinesiotherapy - physical therapy - massage Physiotherapy in a hospital ward - surgical department - internal medicine department - intensive care unit Functional assessment of a patient Orthopedic equipment Ergonomics	E.W30.; E.W31.; E.U22.; E.U23.; O.W3.; O.U8.; O.K5; O.K9;

<b>7. LITERATURE</b>
<b>Obligatory</b>
Mitra R. Principles of Rehabilitation Medicine [Internet]. New York: McGraw-Hill Education; 2019. Available in: <a href="https://accessmedicine-1mhmedical-1com-1000015tb0cd3.han3.wum.edu.pl/Book.aspx?bookid=2550">https://accessmedicine-1mhmedical-1com-1000015tb0cd3.han3.wum.edu.pl/Book.aspx?bookid=2550</a>

Maitin I. B., Cruz E. Current diagnosis & treatment. Physical medicine & rehabilitation [Internet]. New York: McGraw-Hill Education; 2015.

Available in:

<https://accessmedicine-1mhmedical-1com-1000015tb0cd3.han3.wum.edu.pl/Book.aspx?bookid=1180>

**Supplementary**

Students who are particularly interested in the issues discussed, will have access to the additional materials. Articles and books will be available on the e-learning platform: <https://e-learning.wum.edu.pl/en/> .

**8. VERIFYING THE EFFECT OF LEARNING**

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
E.W30.; E.W31., E.U22., E.U23., O.W3., O.U8., O.K5, O.K7, O.K9;	<b>On-line test with Multiple Choice Questions (MCQs)</b>	<b>Correct answers to at least 60% of MCQs</b>
E.U22., E.U23., O.U8., O.K5, O.K9;	<b>Direct teacher’s assessment</b>	<b>At least 60% correctness of the practical task completion</b>

**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*)

Duration of the course is 1 week (from Monday to Friday).

Attendance is obligatory. The attendance list is checked every day. More than 1 absence will result in failure of the course. Only documented reason for absence is taken into account.

We meet at the Department of Rehabilitation (Banacha 1a Str., building E, -1 floor, next to the registration) at 9:00 a.m.

Lab coats / scrubs, facial masks, and footwear change are required during stationary classes.

The detailed course schedule will be presented on the first day.

Seminars will be undertaken in the form of e-learning modules using e-learning WUM platform: <https://e-learning.wum.edu.pl/en/> .

Materials for self-study will be available on the e-learning platform.

The final test takes place on the last day of the course.

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**ATTENTION**

The final 10 minutes of the last class in the block/semester/year should be allocated to students’ Survey of Evaluation of Classes and Academic Teachers.



# Transplantology

## 1. IMPRINT

<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Completion
<b>Educational Unit / Educational</b>	Department of Transplantation Medicine, Immunology, Nephrology and Internal Diseases (1W22) Address: 59 Nowogrodzka St, 02-006 Warsaw e-mail: <a href="mailto:medycyna.transplantacyjna@wum.edu.pl">medycyna.transplantacyjna@wum.edu.pl</a> Phone: 22 502 12 32 Fax: 22 502 21 26
<b>Head of Educational Unit / Heads of Educational Units</b>	Professor Magdalena Durlik
<b>Course coordinator</b>	MD PhD Olga Tronina; e-mail: <a href="mailto:olga.tronina@wum.edu.pl">olga.tronina@wum.edu.pl</a> ; phone: 604 975 468
<b>Person responsible for syllabus</b>	MD PhD Olga Tronina
<b>Teachers</b>	Magdalena Durlik, profesor, MD, PhD Teresa Bączkowska, MD, PhD Joanna Pazik, MD, PhD Dominika Dęborska-Materkowska, MD, PhD Ewa Nowacka-Cieciura, MD, PhD Jolanta Gozdowska, MD, PhD Olga Tronina, MD, PhD Agnieszka Furmańczyk-Zawiska, MD, PhD Maciej Kosieradzki, profesor, MD, PhD

	Beata Łągiewska, MD, PhD Wojciech Lisik, professor, MD, PhD Marek Pacholczyk, MD, PhD Łukasz Górski, MSc
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<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	V year, IX and X semester	<b>Number of ECTS credits</b>	2.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)		6	0.2
Seminar (S)		19	1.0
Classes (C)		15	0.8
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions			

<b>3. COURSE OBJECTIVES</b>	
O1	Legal issues in transplantology. Indications for solid organ transplantation
O2	Basics of transplantation immunology, tissue typing and recipient selection, rules of immunosuppressive treatment.
O3	Common post-transplant complications- pathogenesis, clinical presentation, differential and treatment

<b>4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING</b>	
<b>Code and number of the effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
<b>Knowledge – Graduate* knows and understands:</b>	
G.K1	C.W25. Issues in the field of transplantation immunology, principles of selecting the donor and recipient of organ and stem cells transplants F.W14. The basics of interventional transplantation, indications for the transplantation of irreversibly damaged organs and tissues and related procedures.

	F.W15. Principles of brain death determination
G.K2	E.W22. Types of transplants and immune mechanisms of allograft rejection C.W39. Major drug side effects, including drug interactions

**Skills– Graduate\* is able to:**

G.S1	E.U1. Conduct medical interview with and adult patient E.U3. Conduct a complete and targeted physical examination of an adult patient E.U14 Recognize life-threatening health conditions E.U16. Plan diagnostic, therapeutic and prophylactic procedures E.U32. Plan specialist consultations E.U20. Qualify the patient for home and hospital treatment
G.S2	E.U17. Analyze the possible side effects of individual drugs and their interactions E.U38. Keep the patient’s medical records

\* 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)**

<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
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**Knowledge – Graduate knows and understands:**

K1	D.W6 The importance of verbal and non-verbal communication in the process of communicating with the patient and the concept of trust in the interaction with the patient
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**Skills– Graduate is able to:**

S1	E.U29 Perform basic medical procedures including: body temperature measurement (superficial and deep), pulse measurement, non-invasive pressure measurement
----	---

**Social Competencies – Graduate is ready for:**

SC1	Acts for the patient’s sake as his priority
SC2	Able to establish and maintain a deep and respectful contact with the patient.

**6. CLASSES**

Form of class	Class contents	Effects of Learning
Lectures	L1. Organization of organ procurement and sharing in Poland. L2 Surgical complications in transplant recipients L3. Transplantation of heart, transplantation of lungs. L4. Regenerative medicine. L5. Transplant tolerance. L6. Current problems of transplantology.	F.W15, G.W9. F.W14 F.W14 E.W21, E.W22 F.W15, G.W9.m E.W21 E.W22
	S1. Organ procurement, evaluation and selection of donors. Organ preservation. S2. Qualification to kidney transplantation. S3. Qualification to liver transplantation. S4-5. Liver transplantation- surgical techniques and surgical complications.	F.W15, G.W9. E.W7. E.W7. F.W14 E.W7 E.W7 C.W39



Seminars	<p>S6-7 Cardiological, metabolic and hematological complications after solid organ transplantation.  S8. Malignancies in solid organ recipients.  S9-10. Principles of immunosuppressive therapy in organ transplantation.  S11-12. Transplant rejection and their pathologies evolving in solid organ transplants.  S13. Transplantation from living donor.  S14-15 Infectious complications after solid organ transplantation.  S16. Transplantation of pancreas and pancreatic islets.  S17. Post-transplant management of liver transplant recipients.  S18-19. Post-transplant management of kidney transplant recipients.</p> <p>C1-12 – clinical rounds, individual cases analysis in the department  C13 – passive participation in transplanted organ biopsy  C14-15 – passive/active participation in out-patients consultations</p>	<p>E.W21., E.W22</p> <p>F.W14, G.W9  E.W7. E.W22  E.W7, E.W22  E.W7, E.W22</p> <p>E.U1, E.U3, E.U7, E.U14,  E.U16, E.U17, E.U32, E.U20,  E.U38, D.U15</p>
Clinical classes		

## 7. LITERATURE

### Obligatory

Handbook of kidney Transplantation By Gabriel M. Danovitch, Lippincott Williams& Wilkins 2017

### Supplementary

Tectbook of Organ Transplantation Set, Wiley-Blackwell 2014 Allan D Kirk, Stuart J. Knechtle, Christian P. Larsen et al.

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
<i>e.g. G.K1, G.S1, K1</i>	<i>This field defines the methods used for grading students e.g. pop quiz, test, written report etc.</i>	<i>e.g. threshold number of points</i>
<p>E.U1, E.U3, E.U7  E.U12, E.U14  E.U16, E.U17  E.U20</p> <p>B.W21, B.W24, EW1,  E.W7, D.U15, C.U17,  E.U17</p>	<p>Continuous assessment during the course of the classes, presence and active participation in the clinical rounds. Based on sick leave one day absenteeism is allowed, the remaining ones must be worked off with another group.</p> <p>Fifteen questions MCQ test</p>	<p>9 points – 2.0 (failed)  10 points – 3.0 (satisfactory)  11 points – 3.5 (rather good)  12 points – 4.0 (good)  13 points – 4.5 (more than good)  14-15 points – 5.0 (very good)</p>

## 9. ADDITIONAL INFORMATION

*(Please write here Information essential for the course instructor that are not included in the other part of the course syllabus, particularly the number of acceptable tries for passing a subject (§ 26, § 27 and § 28 of Study Regulations), including exam admission passes, and e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

1. Duration of the transplantology course: 1 week (from Monday to Friday).
2. Realization of the program will be based on seminars presenting the current state of knowledge in specific subject and practical classes in clinical wards and out-patients clinics
3. Classes start at 8.00.
4. During the course no absences will be excused.
5. Students are expected to have their own lab coat, stethoscope, student's ID, shoes.
6. The student participate in classes (seminars and practice) only with the group. Possible group change is allowed in exceptional, justified situations and requires individual approval.
7. If a student has two or more absences must make up for absences with another group. Only then can take the test with another group.
8. All student information is provided on an ongoing basis on the Clinic's website

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# Palliative Medicine

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Credit
<b>Educational Unit / Educational Units</b>	Department of Palliative Medicine (1M10), 4 Lindleya St., 02-005 Warsaw; phone: 48 22 502 20 56, e-mail: <a href="mailto:kmp@wum.edu.pl">kmp@wum.edu.pl</a>
<b>Head of Educational Unit / Heads of Educational Units</b>	Tomasz Dzierżanowski M.D., Ph.D. ( <a href="mailto:tomasz.dzierzanowski@wum.edu.pl">tomasz.dzierzanowski@wum.edu.pl</a> )
<b>Course coordinator</b>	Tomasz Dzierżanowski M.D., Ph.D. ( <a href="mailto:tomasz.dzierzanowski@wum.edu.pl">tomasz.dzierzanowski@wum.edu.pl</a> )
<b>Person responsible for syllabus</b>	Tomasz Dzierżanowski M.D., Ph.D. ( <a href="mailto:tomasz.dzierzanowski@wum.edu.pl">tomasz.dzierzanowski@wum.edu.pl</a> )
<b>Teachers</b>	Tomasz Dzierżanowski M.D., Ph.D., M.B.A.

<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	5th, semester 9 & 10	<b>Number of ECTS credits</b>	1.00
<b>FORMS OF CLASSES</b>			

Contacting hours with academic teacher	Number of hours	ECTS credits calculation
Lecture (L)	0	0
Seminar (S)	20	0.7
Classes (C)	0	0
e-learning (e-L)	0	0
Practical classes (PC)	0	0
Work placement (WP)	0	0
<b>Unassisted student's work</b>		
Preparation for classes and completions	10	0.3

### 3. COURSE OBJECTIVES

O1	Understanding of definitions, goals, and philosophy of palliative medicine including ethical aspects.
O2	Skills in diagnosing, prevention, and treatment of pain and other most frequent symptoms in the end-stage incurable chronic disease patients.
O3	Communication skills with the patient and his care-givers, and competencies of empathic, holistic care after the patient and his family.

### 4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of the effect of learning in accordance with standards of learning	Effects in the field of: <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
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#### Knowledge – Graduate\* knows and understands:

G.K1– E.W29	knows and understands the principles of diagnosing and therapeutic management of pain (including cancer and other chronic pain) and other most common symptoms in palliative care patients
G.K2 – E.W27 (1, 2, 3), E.W28	knows and understands the causes, symptoms, principles of diagnosing and therapeutic management of the most frequent problems in palliative medicine, including: <ul style="list-style-type: none"> <li>a) symptomatic treatment of the most common symptoms</li> <li>b) management of cachexia; prevention and treatment of bed-sores</li> <li>c) management of the most frequent urgent events in palliative medicine</li> </ul> rules of palliative treatment of a patient in the terminal state

#### Skills– Graduate\* is able to:

G.S1 – E.U20	refer a patient to home or in-patient palliative care
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G.S2 – E.U21	define states in which expected the length of life, functional performance or patient's preferences limit the use the management recommended for particular diseases; and is able to use the principles of withdrawing/refraining from futile treatment
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\* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.

<b>5. ADDITIONAL EFFECTS OF LEARNING (non-compulsory)</b>	
<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
<b>Knowledge – Graduate knows and understands:</b>	
K1	
<b>Skills– Graduate is able to:</b>	
S1	
<b>Social Competencies – Graduate is ready for:</b>	
SC1	acts for the patient's sake as his priority
SC2	observes the patient's intimacy and rights
SC3	is aware of own limitations and the necessity of continuous self-development

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
Seminar 1-4	Principles and definitions of palliative medicine; qualification for palliative care	E.W29, E.W27, E.W28, E.U20, E.U21 K1, K2, K3
Seminar 3-5	Principles and practical skills of diagnosing and analgesic treatment in cancer and other chronic diseases, based on the recommendations of WHO / ESMO / EAPC; solving clinical cases	E.W29, E.W27 E.U21 K1, K2, K3
Seminar 6-7	Principles of holistic symptomatic management in the end-stage cancer through clinical cases in selected somatic and psychological disorders	E.W29, E.W27, E.W28, E.U20, E.U21 K1, K2, K3
Seminar 8-10	stages of the patient's adaptation to an incurable disease and impending death; practical communication skills of students with the dying person and their family on particular stages of adaptation in the case of an incurable fatal illness	E.W29 K1, K2, K3
Seminar 11-12	palliative care in non-oncological diseases	E.W29, E.W27 E.U21 K1, K2, K3
Seminar 13-14	ethical issues until the end of life (futile / persistent therapy, euthanasia, conditions of a dignified death); doctor's attitude; the ethics of virtues by E. Pellegrino	E.W28 K1, K2, K3
Seminar 15-16	multidimensional aspect of suffering	E.W28 K1, K2

Seminar 17-18	end-of-life care in adult cancer patients	E.W28 K1, K2
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## 7. LITERATURE

### Obligatory

- Cherny et al. (Ed.). Oxford Textbook of Palliative Medicine. 5th Edition. Oxford University Press, Oxford, 2018.
- Oxford Handbook of Palliative Care. Oxford University Press (OUP Oxford) 2019, ISBN-13: 9780198745655
- Palliative Care Formulary (PCF6). Pharmaceutical Press, London 2018, ISBN 080701429X (ISBN13: 9780807014295)
- Ciałkowska-Rysz A, Dzierżanowski T (Ed.). Medycyna paliatywna. Termedia Wydawnictwa Medyczne, Poznań 2019. ISBN 978-83-7988-224-3. (Polish speakers)

### Supplementary

- Elisabeth Kübler-Ross. On death and dying. Routledge, Abington, 2009.
- Frankl Viktor E. Man's Search for Meaning. Random House Lcc Us, 2006, ISBN13: 9780807014295
- Tomasz Dzierżanowski. Brzegi dobrej Rzeki. Multico, Warszawa 2016 (*Polish speakers*)

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
E.W29, E.W27, E.U20, E.U21, K1, K2, K3	Attendance and active participation in the seminars; groupwork.	Attendance list

## 9. ADDITIONAL INFORMATION

The course consists of 20 hours of seminars, 10 hours of self-preparation.  
Before attending the classes, a student should refresh basic knowledge on the pharmacology of opioid analgesics.

The subject is credited upon active attendance in all seminars.

Contact: Oliwia Pogorzelska, e-mail: kmp@wum.edu.pl, tel. 22 502 20 56, Klinika Medycyny Paliatywnej UCK WUM, ul. Lindleya 4, 02-005 Warszawa

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### ATTENTION

The final 10 minutes of the last class of the block/semester/year should be allotted for students to fill out the Survey of Evaluation of Classes and Academic Teachers



## Neonatology

### 1. IMPRINT

Academic Year	2024/2025
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline <i>(in accord with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>	Medical science
Study Profile	General academic
Level of studies <i>(1<sup>st</sup> level /2<sup>nd</sup> level/ uniform MSc)</i>	Uniform MSc
Form of studies	Full time studies
Type of module / course	obligatory
Form of verification of learning outcomes	completion
Educational Unit / Educational Units	Department of Neonatology and Neonatal Intensive Care Medical University of Warsaw 1W63 00-315 Warsaw, St Karowa 2 Tel 22 59558155 e-mail <a href="mailto:neonatologia@poczta.szpitalkarowa.pl">neonatologia@poczta.szpitalkarowa.pl</a>

Head of Educational Unit / Heads of Educational Units	Associate Professor Renata Bokinić MD PhD
Course coordinator	Joanna Puskarz- Gąsowska MD PhD Tel 225966155/ 225966136 e-mail: jpuskarz@wum.edu.pl
Person responsible for syllabus	Joanna Puskarz- Gąsowska MD PhD
Teachers	Joanna Puskarz-Gąsowska MD PhD, Joanna Seliga – Siwecka MD, PhD, Alicja Kołodziejczyk- Nowotarska MD PhD, Justyna Fiałkowska MD, Joanna Ulan- Drozdowska MD, Marzanna Reśko- Zachara MD PhD Edyta Bielska MD Kinga Zielińska MD Kamila Sońnicka MD Dominika Paw MD

## 2. INFORMACJE PODSTAWOWE

BASIC INFORMATION	5th year, winter/summer semester	Number of ECTS credits	1,00
	Year and semester of studies	Number of hours	ECTS credits calculation
FORMS OF CLASSES			
Contacting hours with academic teacher			
Lecture (L)			
Seminar (S)		5	0,3
Classes (C)		10	0,5
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
Unassisted student's work			
Preparation for classes and completions		8	0,2



**3. COURSE OBJECTIVES**

C1	Acquiring skills in examining a newborn and getting acquainted with issues in the field of physiology and pathology of the neonatal period.
C2	Principles of neonatal life support and postpartum resuscitation of the newborn
C3	Know the basic complications of prematurity

**4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING**

<b>Code and number of the effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
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**Knowledge – Graduate\* knows and understands:**

E.W1.	environmental and epidemiological conditions of the most common illness
E.W2.	rules of nutrition of healthy and sick children, protective vaccinations and routine children's health checks
E.W3.	3) acute and chronic diseases of the upper and lower respiratory tract, congenital defects of the respiratory tract, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, anaphylactic shock, angioedema,
E.W5.	basic methods of diagnosing and treating the foetus
E.W6.	the most common life threatening conditions in children and the management of these conditions
F.W6.	indications for and principles of use of intensive care
F.W7.	applicable recommendations concerning resuscitation of newborns, children and adults
F.W10.	the issues of contemporary imaging studies in neonatology
G.W9.	legal regulations concerning transplantations, artificial reproduction, abortion, aesthetic procedures, palliative treatment and mental diseases;

**Skills– Graduate\* is able to:**

E.U2.	collect medical history from a child and its family;
E.U4.	conduct a physical examination of children of any age
E.U8.	assess the condition of newborns in the APGAR scale and assess their maturity, examine the newborn reflexes
E.U14.	recognize the states of immediate threat to the life of the newborn

E.U12.	perform the differential diagnosis of the most common diseases in adults and children
E.U14.	recognise immediate threats to life
E.U16.	plan diagnostic, therapeutic and preventive treatment
E.U20.	qualify patients for home and hospital treatment
E.U24	interpret laboratory test results with the identification of reasons for deviation
E.U27.	qualify the patient for vaccinations in the neonatal period
F.U11.	follow the algorithm of advanced life support;

*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 in the fields of:
Social Competencies – Graduate is ready for:	
1	establishing and maintaining deep and respectful contact with the patient and the child's mother, as well as showing understanding for worldview and cultural differences
2	be guided by the good of the patient;
3	observance of medical confidentiality and patient rights;
4	aking actions towards the patient based on ethical principles, with the awareness of social conditions and limitations resulting from the disease;
5	noticing and recognizing own limitations and self-assessment of deficits and educational needs
9	implementing the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment
8	formulating conclusions from own measurements or observations;
11	accepting responsibility for decisions made in the course of professional activity, including in terms of one's own safety and that of others.

## 6. CLASSES

Form of class	Class contents	Effects of Learning
Seminars	Adaptation to extrauterin life Principles of examining a newborn. Complications of prematurity. Neonatal Jaundice. Infections of the neonatal period. Perinatal hypoxia. Newborn life suport after birth.	E.W1. E.W2. E.W3. E.W5. E.W6.

		F.W6. F.W7. F.W10. G.W9.
Practical classes	Practical classes at Neonatal Intensive Care, Special Care Unit, Maternity Unit, Delivery room Resuscitation classes in Medical Simulation Center.	E.U2. E.U4. E.U8. E.U14. E.U12. E.U24. E.U16. E.U20. E.U27. F.U11.

<b>7. LITERATURE</b>
Obligatory
Neonatology, 8th Edition, Tricia Lacy Gomella
Supplementary:
Care of the high-risk neonate- Klaus and Fanaroff's

<b>8. VERIFYING THE EFFECT OF LEARNING</b>		
Code of the course effect of learning	Code of the course effect of learning	Code of the course effect of learning
E.W1. E.W2. E.W3. E.W5. E.W6. F.W6. F.W7. F.W10. G.W9.	Sem	<i>Written test</i>
E.U2. E.U4. E.U8. E.U14. E.U12.	PC	Disease history, epicrisis, observations, recommendations, oral exercise report

E.U24. E.U16. E.U20. E.U27. F.U11.		
Social Competencies:	S, PC	Oral exercise report and observations

**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. During the classes the following are necessary: medical scrubs, change of shoes, stethoscope
2. The class lasts 4 days, classes begin up at 8:00., including 1 day at the Medical Simulation Center, 8:30 a.m.  
The scope of knowledge applicable at the final test is included in the topics of classes during seminars and exercises, and /ore materials on the e-learning platform. Completion of the course is in writing test. Completing the block requires active participation in all bedside activities and seminars (including preparation for seminars) and passing a test- 20 questions, 14 positive guarantees passing test  
The condition for admission to the colloquium is a positive evaluation of the clinical classes and the completion of possible absences. Unauthorized absence from the test results in failure to pass the course. Obtaining a fail mark in the test requires correction in the same form (written test) with the next groups within the free group lesson.
4. Absences from seminars are counted in the form of an oral answer from the abandoned topic (until the day of the colloquium); absences from bedside classes are made up in the form of additional clinical duty between 09:30 and 12:30 on public holidays. Absence longer than one day makes it necessary to make up the whole block again. Unusual cases are settled individually.
5. Please do not be late for classes. A delay of more than 15 minutes is considered an absence.
6. Students interested in neonatology can participate in the activities of the Students' Science Club in the Clinic.  
<https://web.facebook.com/sknnoworodki>;
7. On the last day of classes, after the test, students complete an anonymous internal questionnaire summarizing the block of neonatology classes.
8. All student information is provided on an ongoing basis on the Clinic's website  
[www.klinikaneonatologii.wum.edu.pl](http://www.klinikaneonatologii.wum.edu.pl)

Signature of Head of Department

Signature of Person responsible for syllabus

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**ATTENTION**

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.



## Public Health

### 1. IMPRINT

<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine
<b>Field of study</b>	Medicine
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module/ course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Credit
<b>Educational Unit / Educational Units</b>	Department of Social Medicine and Public Health ul. Pawińskiego 3a, 02-106 Warszawa e-mail: <a href="mailto:msizp@wum.edu.pl">msizp@wum.edu.pl</a> , phone: 22 116 63 35

<b>Head of Educational Unit / Heads of Educational Units</b>	Prof. dr hab. n. med. Aneta Nitsch-Osuch
<b>Course coordinator</b>	Prof. dr hab. n. med. Aneta Nitsch-Osuch; anitsch@wum.edu.pl
<b>Person responsible for syllabus</b>	Magdalena Bogdan; mbogdan@wum.edu.pl
<b>Teachers</b>	Dr Magdalena Bogdan Dr Anna Jagielska Dr Aleksandra Kozłowska

## 2. BASIC INFORMATION

<b>Year and semester of studies</b>	5 <sup>th</sup> year, winter and spring semester	<b>Number of ECTS credits</b>	1.00
<b>FORMS OF CLASSES</b>	<b>Number of hours</b>	<b>ECTS credits calculation</b>	
<b>Contacting hours with academic teacher</b>			
Lecture (L)	-	-	
Seminar (S)	20	0.8	
Seminar (S)	5 (5 in the form of e-learning)	0.2	
<b>Unassisted student's work</b>			
Preparation for classes and completions	5	0.2	

## 3. COURSE OBJECTIVES

O1	To gain the knowledge from public health field.
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## 4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

<b>Code and number of effect of learning in accordance with standards of learning</b>	<b>Effects in the field of:</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
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**Knowledge – Graduate\* knows and understands:**

D.W1	social dimension of health and disease, influence of society (family, social relationships network) and social inequalities on health condition, as well social and cultural differences and the roles of social stress in health and self-destructive behaviours
D.W8	how healthcare institutions operate and the social role of physicians
D.W14.	rules of promotion of health, its objectives and main directions of operation, with a special focus on the awareness of healthy lifestyle
D.W17	rights of patients
G.W1	health assessment methods of an individual and a population, disease and medical procedure classification
G.W4	term of public health, its purposes, objectives, as well as the structure and organisation of the healthcare system at the national and global levels, as well as the influence of economic conditions on healthcare availability
G.W5	legal regulations relating to granting healthcare benefits, patient rights, the basics of the profession of a physician and functioning of the medical self-government
G.W6	basic regulations concerning the organisation and financing of the healthcare system, the general health insurance and the rules of organisation of healthcare entity enterprises

**Skills– Graduate\* is able to:**

B.U10	use databases, including the Internet and search for needed information with available tools
D.U3	choose a treatment causing minimum social consequences to a sick person
D.U9	advise on the observance of therapeutic guidelines and healthy lifestyle
D.U15	observe patient's rights
E.U38	keep a patient's medical records
G.U1	describe the demographic structure of a population and assess the population's health problems on this
G.U2	collect information about the presence of the factors of risk of infectious and chronic diseases and plan preventive actions at various levels of prevention
G.U3	interpret the incidence of diseases and disability
G.U4	assess the epidemic situation of diseases common in the Republic of Poland and worldwide
G.U5	explain to healthcare users their basic entitlements and the legal basics of granting bonuses
G.U6	draw up medical certificates for patients, their families and other entities

\* 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)**

<b>Number of effect of learning</b>	<b>Effects in the fields of:</b>
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**Knowledge – Graduate knows and understands:**

W1	ethical, social and legal conditions for practicing medicine and the principles of health promotion, bases knowledge on the scientific evidence
W2	methods of conducting scientific research

**Skills– Graduate is able to:**

U1	can plan his/her own educational activity and constantly improve his/her knowledge in order to update the knowledge
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**Social Competencies – Graduate is ready for:**

K1	establishing and maintaining deep and respectful contact with the patient, as well as showing understanding for differences in worldviews and cultures
K2	compliance with medical confidentiality and patient’s rights
K3	promoting pro-health behaviors
K4	using objective sources of information
K5	Implementing the principles of professional team cooperation, including representatives of other medical professions, also in multicultural and multinational environment

**6. CLASSES**

Form of class	Class contents	Effects of Learning
Seminars (s-l)	S1 (e-l) – Essentials of Public Health. S2 (e-l) – Basics of medical law and patient’s rights. S3 (e-l) – International healthcare systems profiles. S4 (e-l) – Basics of organization and healthcare management. S5 (e-l) – E-health and telemedicine.	D.W1; D.W8; D.W14; D.W17; G.W1; G.W4; G.W5; G.W6; B.U10; D.U3; D.U9; D.U15; E.U38; G.U1; G.U2; G.U3; G.U4; G.U5
Seminars	S1 – Introduction to Public Health: <ul style="list-style-type: none"> <li>- Basics definitions and concepts;</li> <li>- Health promotion and disease prevention;</li> <li>- The place of public health and health education in the healthcare system.</li> </ul> S2 – Basics of medical certification, medical law and patient’s rights. S3 - Healthcare systems – in Poland and in the world, including: <ul style="list-style-type: none"> <li>- The healthcare system assessment approach;</li> <li>- Models of the financing and organization of healthcare systems;</li> <li>- The impact of health of the economy.</li> </ul> S4 – Essentials of healthcare interventions, including: <ul style="list-style-type: none"> <li>- Basics of health policy;</li> <li>- Organizational and management aspects.</li> </ul>	D.W1; D.W8; D.W14; G.W1; G.W4; G.W5; G.W6; B.U10; D.U3; D.U9; E.U38; G.U1; G.U3; G.U4; G.U5; K1; K2; K3; K4; K5; U1; W1; W2

**7. LITERATURE****Obligatory**

1. Detels R., et al., Oxford Textbook of Global Public Health (7 edn), Oxford Medicine Online, 2021.
2. Wilensy S.E., Teitelbaum J.B., Essentials of Health Policy and Law (4 edn), Jones&Bartlett Learning, 2019.
3. Parker E., Correa-Velez I., Introduction to Public Health (4 edn), Elsevier Publisher 2019.



## Supplementary

1. Boslaugh S.E., Health Care Systems Around the World. A Comparative Guide, Sage Publications, Inc. 2013.

### 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
D.W1; D.W8; D.W14; D.W17; G.W1; G.W4; G.W5; G.W6; B.U10; D.U3; D.U9; D.U15; E.U38; G.U1; G.U2; G.U3; G.U4; G.U5	Active participation in e-learning seminars. Active participation in seminars	Successful completion of the seminars in e-learning form. Successful completion of the seminars.
D.W1; D.W8; D.W14; G.W1; G.W4; G.W5; G.W6; B.U10; D.U3; D.U9; E.U38; G.U1; G.U3; G.U4; G.U5	The course ends without a grade (only receiving credit) and will be verified on the basis of: <ul style="list-style-type: none"><li>• active participation in e-learning seminars;</li><li>• active participation in seminars;</li><li>• final test exam on the e-learning platform.</li></ul>	Passing the final exam.
K1; K2; K3; K4; K5; U1; W1; W2	Positive assessment of acquired skills obtained by the teacher.	

### 9. ADDITIONAL INFORMATION

1. Available educational materials present the most important information on the theory and practice of public health.
2. The person responsible for teaching in a given year: Magdalena Bogdan, PhD; email: mbogdan@wum.edu.pl Information about the duty hours and the class rules are available in the unit.
3. The Student Scientific Society of Healthcare Management run by the Department of Social Medicine and Public Health of the Medical University of Warsaw is supervised by Magdalena Bogdan, PhD; mbogdan@wm.edu.pl). Information about The Student Scientific Societies is available on the Department's website: <https://msizp.wum.edu.pl/>

#### ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.

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## VOCATIONAL TRAINING:

**Emergency Medicine – 2 weeks – 70h**  
**Obstetrics & Gynecology – 2 weeks - 70h**  
**5th year, 6-year program ED students**  
**Faculty of Medicine**

Upon completion of their fifth year of study students are required to take one-month summer clinical clerkships including a two-week training at the Department of Obstetrics & Gynecology and subsequently a two-week practical course in the Emergency Medicine Ward at a teaching hospital in Poland or selected foreign countries. The clerkships are a part of the medical curriculum mandatory to be granted a pass to enter the sixth year of the study.

The head of the Ob/Gyn Department, the Emergency Medicine ward or an appointed instructor in charge is responsible for providing a detailed program of the practical training course and duty schedules. They also supervise and carry out the final assessment of students' clinical performance.

The duties carried out by the student are those of a regular physician / surgeon, however, under professional supervision of the instructors.

During their training students are expected to perform two twenty-four hour shifts (two on each ward) when they shadow the physician / surgeon in charge and assist or do the regulator work.

The fifth-year training aims at using the theoretical background students obtained in their courses (gynecology, obstetrics, infectious diseases, internal diseases, paediatric diseases, emergency medicine, neurology, imaging diagnostics, anesthetics etc.) developing and/or improving practical skills.

The program at the G&O ward provides instruction in the following aspects:

1. organization and functioning of the Obstetric Admissions Department, Labor Ward and Maternity Ward;
2. admitting the patient, setting up the patient's records, carrying out activities with respect to the patient's personal toilet;
3. monitoring the stages of labor, completing the chart of the labor course with a particular focus on parameters with respect to the maternal and fetal status;
4. delivering the patient under a close supervision of an obstetrician and midwife;
5. assistance in suturing the perineum;
6. post-delivery assessment of the placenta;
7. instruction in operating diagnostic devices (e.g. amnioscope, pulse rate detector etc.);
8. assisting in the Caesarian section
9. organization and management of work at the Gynecological Admission Department and in the Gynecological Ward;

10. principles of gynecological examination;
11. criteria used for qualifying patients for operation;
12. management of work in the treatment room, completing and filing records, collecting samples for histopathological and cytological examination;
13. assisting in gynecological surgical procedures;
14. early postoperative monitoring, completing the patients' chart;
15. management of patients admitted for threatened abortion;
16. principles of prevention of neoplasia of the female genital organs and breast;

The goals of the instruction provided in the Emergency Medicine ward are:

1. Understanding the organization of the Intensive Care Ward.
2. Deepening knowledge of physiopathology associated with life-threatening conditions caused by injuries, serious infections, extensive operations.
3. Familiarization with treatment methods used in the intensive care unit with a strong emphasis on the acquisition of practical skills.
4. Getting to know the methods of monitoring the respiratory system, conducting mechanical ventilation with a respirator.
5. Getting to know the methods of cardiovascular monitoring and methods of pharmacological support of the circulatory system.
6. Evaluating the patient's state of consciousness, sedation in the intensive care unit.
7. Familiarization with infections in the intensive care unit and the principles of treatment of septic shock.
8. Ethical problems in intensive care (futile therapy, DNR).

**Throughout the course of 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 September 20<sup>th</sup> of the subsequent academic year.**