

## Course descriptions

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## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026					
<b>University:</b> Comenius University Bratislava					
<b>Faculty:</b> Faculty of Medicine					
<b>Course ID:</b> LF.D_K/L-S-VL-115-4/19		<b>Course title:</b> Allergology			
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning					
<b>Type, volume, methods and workload of the student - additional information</b> COS					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 8.					
<b>Educational level:</b> I.II.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 59					
A	B	C	D	E	FX
40,68	22,03	18,64	6,78	11,86	0,0
<b>Lecturers:</b> doc. MUDr. Peter Čižnár, CSc.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026					
<b>University:</b> Comenius University Bratislava					
<b>Faculty:</b> Faculty of Medicine					
<b>Course ID:</b> LF.D_K/L-S-VL-115-5/19		<b>Course title:</b> Allergology			
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning					
<b>Type, volume, methods and workload of the student - additional information</b> COS					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 10.					
<b>Educational level:</b> I.II.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 11					
A	B	C	D	E	FX
0,0	18,18	36,36	18,18	27,27	0,0
<b>Lecturers:</b> doc. MUDr. Peter Čižnár, CSc.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KAIM1/L-S-VL-004/25	<b>Course title:</b> Anaesthesiology and Intensive Medicine 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 15s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK_1/L-S-VL-035/18 - Internal Propedeutics	
<b>Course requirements:</b> - 100% attendance at the practicals - more than 50% attendance at the lectures - written test (minimum 60% of correct answers) <b>Final exam:</b> - practical exam: patient examination and writing medical report - theoretical exam: 3 question (anaesthesiology, resuscitation and emergencies, intensive medicine) <b>Test evaluation:</b> A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Basic principles of anaesthesiology, intensive medicine and resuscitation . Understanding the pathophysiology, pharmacology and clinical importance of basic clinical discipline AIM. <b>Knowledge:</b> theoretical knowledge - basics in anaesthesiology, resuscitation and intensive medicine according syllabus. <b>Skills:</b> Evaluation of patient for general anesthesia, preoperative evaluation on the basis of anamnesis , clinical examination, judgment of laboratory and imaging investigation. Airway management, oxygen therapy, management of circulatory failure, basic life support training on the manikin in simulation center. General characteristics of critical illness.. Early recognition and management of critical illness.	
<b>Class syllabus:</b> 1. AIM – targets and position in clinical medicine . 2. Preoperative evaluation and preparing for anesthesia , premedication. 3. Perioperative care , fluid and oxygen therapy, acute postoperative management . 4. Anesthesia , regional and general, basic principles. 5. AIM for children – introduction and basic principles. 6. Anesthetics and the course of general anesthesia, principles of intravenous, inhalation general anesthesia .	

7. Multidisciplinárna intenzívna medicína v perioperačnej starostlivosti o kriticky chorých.
8. General principles and rationale for care of critical ill patients in intensive medicine. Evaluation of vital function, clinical and lab recognition of critical illness. Scoring.
9. Etiology, pathophysiology , diagnostics, monitoring and management of critical states, like shock, acute respiratory failure, ARDS, sepsis, MODS, renal failure.
10. Resuscitation and urgent medicine – pathophysiology and rationale management.
11. Basic Life support - use of automatic external defibrillation .
12. Advanced Life support – leader in team work. ERC guidelines 2021 . Prevention of the courses of cardiac arrest , outreach approach, MET.

#### **Recommended literature:**

Jiří Málek a kolektiv : Praktická anesteziologie, GRADA 2016, ISBN:978-80-247-5632-5..

Firment J. : Anestéziológia a intenzívna medicína; vysokoškolské učebné texty, UJPŠ, Košice 2020, ISBN 97-88-08-15-28-43-9.

Ševčík Pavel a kol. Intenzívni medicína, 3. vydanie, Galen 2014; ISBN: 9788074920660

Resuscitation (2021) 1–80: European Resuscitation Council Guidelines for Resuscitation 2021. (www.erc.edu).

Nové odporúčania ERC 2021 (www.srr.sk).

Anesteziologie a intenzívni medicína, ročník 32, rok 2021. Supplementum. Doporučené postupy pro resuscitaci 2021: Souhrn doporučení.

LARSEN : Anestézia , 8. Vydanie , Praha Avicenum 2012, resp. LARSEN 9. Vydanie r. 2022, Textbook english – Morgan & Mikhail : Clinical Anesthesiology , 5th Edition 2018 , ISBN 978-0-07-181669-4

Barash PG, Cullen B.F, Stoelting R.K a kol. Klinická anestéziologie , Praha Grada 2015. 6.vydání , ISBN 978-80-247-4053-9

Allman K.G, Wilson I.A: Oxford handbook of ANAESTHESIA , 3rd edition , OXFORD University Press, 2016 ,s. 1203 p. , ISBN 978-0-19-856609-0

#### **Languages necessary to complete the course:**

slovak

#### **Notes:**

#### **Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. MUDr. Roman Záhorec, CSc., MUDr. Karol Kálíg, CSc., MUDr. Juraj Koutun, CSc.

**Last change:** 24.02.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KAIM1/L-S-VL-005/19	<b>Course title:</b> Anaesthesiology and Intensive Medicine 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 15s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.KAIM1/L-S-VL-004/19 - Anaesthesiology and Intensive Medicine 1 or LF.KAIM1/L-S-VL-004/25 - Anaesthesiology and Intensive Medicine 1	
<b>Course requirements:</b> - 100% attendance at the practicals - 1 written test (minimum 60% of correct answers) Final exam: - practical exam: patient examination and writing medical report - theoretical exam: oral exam - 2 questions (anaesthesiology, intensive care and resuscitation) and / or professional essay on a topic related to the global objectives of the course (distance learning in LMS Moodle). Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Upon successful completion of the educational program, the student will gain knowledge and understanding of the knowledge in accordance with the global learning objectives of the course. <b>Knowledge:</b> Anaesthesiology - principles of preoperative evaluation and patient preparation, premedication, anaesthesiological procedures, basic and advanced monitoring, postoperative care, including the possibilities of analgesia. Anaesthesiological procedures in selected surgical specialties. Anaphylaxis in the perioperative period. Intensive care - General principles of perioperative care for the critically ill and multidisciplinary intensive care, ICU organization, monitoring and treatment procedures. Etiology, pathophysiology, diagnosis and treatment plans and monitoring in selected critical conditions (shock, circulatory arrest, ALI / ARDS, instrumental lung ventilation, polytrauma, sepsis and MODS). Resuscitation - Basic and advanced life support, resuscitation, algorithms in resuscitation procedures, post-resuscitation care. Prevention of circulatory arrest, basics of teamwork. <b>Skills:</b>	

Upon successful completion of this course, students will be able to:  
Evaluate the patient in preoperative preparation, assess anamnestic, clinical and laboratory data, know how to predict, describe and design basic procedures for addressing airway disorders, circulatory disorders, severe injury management, practically manage cardiopulmonary resuscitation on the model. General characteristics of a critically ill patient. Applied physiology of vital functions.

**Class syllabus:**

1. AIM - roles and goals in medical care.
2. Preoperative evaluation and preparation of the patient for surgery.
3. Perioperative care and treatment of acute pain.
4. Anesthetic procedures in selected surgical departments.
5. AIM in pediatrics - basic principles.
6. Basic anesthesiological procedures, drugs in anaesthesiology.
7. Multidisciplinary intensive care medicine in perioperative care of critically ill patients.
8. General principles of medical care in intensive care.
9. Etiology, pathophysiology, diagnostics and treatment plans and monitoring in selected critical conditions
10. Resuscitation - applied physiology in resuscitation procedures.
11. Basic resuscitation and automated external defibrillation.
12. Advanced resuscitation, hospital resuscitation, resuscitation team.
13. Prevention of circulatory arrest.

**Recommended literature:**

Jiří Málek a kolektiv : Praktická anesteziologie, GRADA 2016, ISBN:978-80-247-5632-5..  
Firmant J. : Anestéziológia a intenzívna medicína; vysokoškolské učebné texty, UJPŠ, Košice 2020, ISBN 97-88-08-15-28-43-9.  
Ševčík Pavel a kol. Intenzivní medicína, 3. vydanie, Galen 2014; ISBN: 9788074920660.  
Resuscitation (2021) 1–80: European Resuscitation Council Guidelines for Resuscitation 2021. (www.erc.edu).  
Nové odporúčania ERC 2021 (www.srr.sk)  
Anesteziologie a intenzivní medicína, ročník 32, rok 2021. Supplementum. Doporučené postupy pro resuscitaci 2021: Souhrn doporučení.  
LARSEN : Anestézia , 8. Vydanie , Praha Avicenum 2012, resp. LARSEN 9. Vydanie r. 2022, Textbook english – Morgan & Mikhail : Clinical Anesthesiology , 5th Edition 2018 , ISBN 978-0-07-181669-4  
Barash PG, Cullen B.F, Stoelting R.K a kol. Klinická anestéziologie , Praha Grada 2015. 6.vydání , ISBN 978-80-247-4053-9  
Allman K.G, Wilson I.A: Oxford handbook of ANAESTHESIA , 3rd edition , OXFORD University Press, 2016 ,s. 1203 p. , ISBN 978-0-19-856609-0

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 1761

A	B	C	D	E	FX
65,3	29,7	4,49	0,4	0,11	0,0

**Lecturers:** doc. MUDr. Roman Záhorec, CSc., MUDr. Karol Kálig, CSc., MUDr. Juraj Koutun, CSc.

<b>Last change:</b> 28.11.2022
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.AÚ/L-S-VL-001/25	<b>Course title:</b> Anatomy 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 48s / 36s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 8	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% participation on the practical exercises - Passing 1 written test with at least 60% points and 1 practical exam from the structures of the upper and lower limbs. - Written test with a minimum of 60% - Test evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less - Practical exam evaluation: A: excellent, B: very good, C: good, D: satisfactory, E: sufficiently, Fx: failed. Final mark of the semester is determined from the average of received scores.	
<b>Learning outcomes:</b> <b>Knowledge:</b> - Know the architecture and structures of the human body in general. - Know the different parts of the musculoskeletal system. - Have knowledge of the morphological structure of the heart, arteries and veins of the systemic and pulmonary circulation. - Learn and study the structures and organs of the respiratory and lymphatic system. - Have knowledge of the basic concepts and structures of the central and peripheral nervous system. - To acquire and study anatomical structures and topographical regions of the upper and lower limbs. <b>Skills:</b> - Understand and use anatomical terminology. - Analyze the acquired knowledge from a morphological and clinical point of view. - Practical use of theoretical knowledge during dissection and practical exercises. - Recognize and describe radiological images depicting anatomical structures.	
<b>Class syllabus:</b> <b>Lectures:</b> - Introduction to anatomy (planes and directions of the human body, anatomical position, anatomical terminology). - General anatomy of bones and joints.	

- General anatomy of muscles, fascia, fascial compartments, spaces.
- Cardiovascular system – heart, arteries, veins.
- Nervous system – basic concepts.
- Peripheral nervous system – brachial plexus, lumbar plexus, sacral plexus.
- Lymphatic system – general description, lymphatic tissue in organs, thymus, spleen, lymphatic vessels and nodes.
- Topographical regions of the upper and lower limbs.
- Respiratory system – nasal cavity, paranasal sinuses, pharynx, larynx, trachea, bronchi, lungs, pleura.
- Radiological examination methods of the upper and lower limb.

**Practical exercises:**

- Skeleton of the upper limb.
- Joints of the upper limb.
- Muscles and topographical regions of the upper limb.
- Skeleton of the lower limb.
- Joints of the lower limb.
- Muscles and topographical regions of the lower limb.

**Dissection exercises:**

Upper limb: Landmarks and regions of the upper limb. Dissection of superficial veins and superficial nerves. Deltopectoral triangle. Dissection of the structures in the axillary fossa. Dissection of the structures in medial bicipital sulcus. Dissection of the structures in the cubital fossa. Dissection of the structures on the ventral side of the forearm. Dissection of the palm of the hand. Dissection of the structures on the dorsal side of the upper limb.

Lower limb: Landmarks and regions of the lower limb. Dissection of superficial veins and superficial nerves. Dissection of the structures in the femoral triangle and iliopectineal fossa. Dissection of the anterior crural region and the dorsum of the foot. Dissection of the medial retromalleolar region. Dissection of superficial veins and nerves on the dorsal side of the lower limb. Dissection of the structures in the suprapiriform and infrapiriform foramen. Dissection of structures in the popliteal fossa. Planta pedis dissection.

**Recommended literature:**

- MRÁZ, P., BÍNOVSKÝ, A., HOLOMÁŇOVÁ, A., OSVALDOVÁ, M., RUTTKAY-NEDECKÁ, E. *Anatómia ľudského tela. I. 4. vydanie.* Bratislava : SAP, 2021, 510 s. ISBN 9788089607891
- MRÁZ, P., BELEJ, K., BEŇUŠKA, J., HOLOMÁŇOVÁ, A., MACKOVÁ, M., ŠTEŇOVÁ, J. *Anatómia ľudského tela. II.* Bratislava : SAP, 2021, 496 s. ISBN 9788089607921
- KUBÍKOVÁ, E., EL FALOUGY, H. a Kolektív. *Klinická anatómia.* Bratislava: Univerzita Komenského, 2020, 330 s. ISBN 978-80-223-5103-4.
- NETTER, F. H. *Netterov anatomický atlas človeka. Preklad 7. vyd.* Bratislava: Lindeni, 2020. 792 s. ISBN 9788056617908

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Štefan Polák, CSc., doc. MUDr. Eliška Kubíková, PhD., MPH, doc. MUDr. Anna Holomáňová, CSc., doc. RNDr. Ladislav Guller, CSc., doc. RNDr. Peter Weisman, PhD., doc. MUDr. Zora Haviarová, PhD., Mgr. Katarína Bevízová, PhD., MUDr. Hisham El Falougy, PhD., RNDr. Petra Lukáčiková, PhD., MUDr. Tomáš Barczy, PhD., Mgr. Silvia Mužiková, MUDr. Abdolreza Majidi, Mgr. Vladislava Zohdi, PhD., RNDr. Melinda Takácsová, PhD., MUDr. Peter Malovec, MUDr. Andrej Mifkovič, PhD., MUDr. Daniela Dovalová, Mgr. Tomáš Havránek, PhD., MUDr. Osama Al - Khaldi, MDDr. Mária Talánová, MUDr. Olia El Hassoun Sečanská, PhD., MUDr. Dominik Králik, Stanislav Malakhov, PhD., MUDr. Jana Bevilaqua, MUDr. Tamás Kocsis

**Last change:** 20.01.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.AÚ/L-S-VL-002/25	<b>Course title:</b> Anatomy 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 48s / 54s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 10	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.AÚ/L-S-VL-001/25 - Anatomy 1	
<b>Course requirements:</b> - 100% participation on the practical exercises - Passing 1 written test with at least 60% points and 1 practical exam from the structures, organs and regions of the thorax and abdomen. - Written test with a minimum of 60% - Test evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less - Practical exam evaluation: A: excellent, B: very good, C: good, D: satisfactory, E: sufficiently, Fx: failed. Final mark of the semester is determined from the average of received scores.	
<b>Learning outcomes:</b> <b>Knowledge:</b> - Understand and know the structures and organs of the digestive system. - Acquire knowledge about the organs of the urinary and genital systems - Have knowledge of the topographical regions and cavities of the thorax and abdomen. - Have knowledge about the skeleton and muscles of the trunk. - Acquire knowledge about endocrine glands. - Acquire knowledge about the projections of organs on the thoracic and abdominal walls. <b>Skills:</b> - Understand and use anatomical terminology. - Analyze the acquired knowledge from a morphological and clinical point of view. - Practical use of theoretical knowledge during dissection and practical exercises. - Recognize and describe radiological images depicting anatomical structures.	
<b>Class syllabus:</b> <b>Lectures:</b> - Digestive system - basic concepts, oral cavity, teeth, salivary glands, esophagus, stomach, small intestine, large intestine, liver, bile ducts, pancreas, peritoneum. - Topographical regions – thorax, abdomen. - Urinary system – kidney, ureter, urinary bladder, urethra. - External and internal female genital organs.	

- External and internal male genital organs.
- Endocrine glands.
- Radiological examination methods – thorax and abdomen.

**Practical exercises:**

- Vertebrae, ribs, sternum.
- Joints of the vertebral column and thorax.
- Muscles and topographical regions of the thorax.
- Muscles and topographical regions of the abdomen, rectus sheath.
- Muscles and topographical regions of the back.

**Dissection exercises:**

- Thorax: Regions of the thorax. Identification points and lines on the thorax. Skeletotomy of lungs, pleura and heart and their surface projection onto the thoracic wall. Dissection of the intercostal space. Dissection of subcutaneous structures. Dissection of the mammary gland. Dissection of pectoral muscles, rami pectorales, nervi pectorales. Opening the thoracic cavity and study of localization of thoracic viscera. Dissection of anterior and superior mediastinum. Opening of the pericardium. Dissection of ascending aorta, arch of aorta, pulmonary trunk and pulmonary veins. Preparation of lung root (radix pulmonis). Study of external features of heart and lungs. Preparation of lung hilum (hilum pulmonis). Dissection of heart vessels. Incision and opening of heart chambers, study of heart interior. Dissection of the posterior mediastinum.

Abdomen: Regions of the abdomen. Identification points and lines on the abdomen. Surface projection of organs onto the abdominal wall. Preparation of the walls and content of the inguinal canal. Dissection of abdominal muscles. Opening of the abdominal cavity and study of abdominal viscera in situ. Peritoneal relations in the supramesocolic and inframesocolic compartment, lesser sac of peritoneum. Peritoneal folds. Dissection of vessels of the abdominal cavity. Study of macroscopic features of organs of the abdominal cavity. Dissection of retroperitoneal space. Topography of the retroperitoneal organs. Dissection of lumbar plexus. Dissection and study of organs in the lesser pelvis.

**Recommended literature:**

- MRÁZ, P., BÍNOVSKÝ, A., HOLOMÁŇOVÁ, A., OSVALDOVÁ, M., RUTTKAY-NEDECKÁ, E. Anatomia ľudského tela. I. 4. vydanie. Bratislava : SAP, 2021, 510 s. ISBN 9788089607891
- MRÁZ, P., BELEJ, K., BEŇUŠKA, J., HOLOMÁŇOVÁ, A., MACKOVÁ, M., ŠTEŇOVÁ, J. Anatomia ľudského tela. II. Bratislava : SAP, 2021, 496 s. ISBN 9788089607921
- KUBÍKOVÁ, E., EL FALOUGY, H. a kolektív. Klinická anatomia. Bratislava: Univerzita Komenského, 2020, 330 s. ISBN 978-80-223-5103-4.
- NETTER, F. H. Netterov anatomický atlas človeka. Preklad 7. vyd. Bratislava: Lindeni, 2020. 792 s. ISBN 9788056617908

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Štefan Polák, CSc., doc. MUDr. Eliška Kubíková, PhD., MPH, doc. MUDr. Anna Holomáňová, CSc., doc. RNDr. Ladislav Guller, CSc., doc. RNDr. Peter Weisman,



PhD., MUDr. Hisham El Falougy, PhD., doc. MUDr. Zora Haviarová, PhD., RNDr. Petra Lukáčiková, PhD., RNDr. Melinda Takácssová, PhD., MUDr. Tomáš Barczy, PhD., MUDr. Peter Malovec, Mgr. Silvia Mužiková, MUDr. Jana Bevilaqua, MUDr. Abdolreza Majidi, Mgr. Vladislava Zohdi, PhD., Mgr. Katarína Bevízová, PhD., MUDr. Andrej Mifkovič, PhD., MUDr. Daniela Dovalová, MUDr. Osama Al - Khaldi, MDDr. Mária Talánová, Mgr. Tomáš Havránek, PhD., MUDr. Olia El Hassoun Sečanská, PhD., MUDr. Dominik Králik, Stanislav Malakhov, PhD., MUDr. Tamás Kocsis

**Last change:** 20.01.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.AÚ/L-S-VL-003/17	<b>Course title:</b> Anatomy 3
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 48s / 48s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 11	
<b>Recommended semester:</b> 3.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.AÚ/L-S-VL-002/25 - Anatomy 2 or LF.AÚ/L-S-VL-002/16 - Anatomy 2	
<b>Course requirements:</b> - 100% participation on the practical exercises - Passing 1 written test with at least 60% points and 1 practical exam from the structures of the head and neck, and the central nervous system. - Written test with a minimum of 60% - Test evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less - Practical exam evaluation: A: excellent, B: very good, C: good, D: satisfactory, E: sufficiently, Fx: failed. Final exam: - Practical part - Oral part (5 questions), the student has 50 minutes to prepare. - The student must first be successful in the practical part before he can take part in the oral exam. - exam evaluation: A: excellent, B: very good, C: good, D: satisfactory, E: sufficiently, Fx: failed.	
<b>Learning outcomes:</b> <b>Knowledge:</b> - Acquire knowledge about the structures and organs of the central nervous system and the autonomic nervous system. - Acquire knowledge about the regions, organs, nerves and vessels of the head and neck. - Have knowledge about the skeleton and muscles of the head and neck - Gain knowledge about sense organs and skin. <b>Skills:</b> - Understand and use anatomical terminology. - Analyze the acquired knowledge from a morphological and clinical point of view. - Practical use of theoretical knowledge during dissection and practical exercises. - Recognize and describe radiological images depicting anatomical structures.	
<b>Class syllabus:</b> <b>Lectures:</b> - Spinal cord	

- Spinal nerves
- Medulla oblongata, pons.
- Mesencephalon, The fourth ventricle, reticular formation.
- nuclei of the cranial nerves, cranial nerves.
- Cerebellum.
- Telencephalon.
- Limbic lobe and olfactory pathways.
- Basal nuclei.
- Autonomic nervous system
- Sense organs
- Skin.

**Practical exercises:**

- Skull – viscerocranium.
- Skull – neurocranium.
- Joints of the bones of the skull.
- Muscles of the head and neck.
- Topographical regions of the head and neck.

**Dissection exercises:**

Head and neck: Surface markings and regions. Dissection of cutaneous nerves and veins. Dissection of the parotid region. Dissection of the oral region, facial vessels. Dissection of the submandibular triangle. Dissection of the carotid triangle. Dissection of the frontal, infraorbital and mental regions. Dissection of the lateral cervical region. Dissection of the occipital and posterior cervical regions. Central nervous system: Surface markings of the spinal medulla. Spinal nerve. Vertebral levels of the spinal cord segments. Removal of the brain from the skull. Cranial nerve projections from openings on the skull. Cranial meninges. Venous sinuses of the dura mater. Subarachnoid cisterns. Blood supply of the brain. Cranial nerve projections from the base of the brain. Surface features of the cerebral haemispheres. Brain stem. Cerebellum. Fourth ventricle. Diencephalon. Third ventricle. Basal nuclei. White matter of the cerebral hemisphere. Lateral ventricles.

**Recommended literature:**

- MRÁZ, P., BÍNOVSKÝ, A., HOLOMÁŇOVÁ, A., OSVALDOVÁ, M., RUTTKAY-NEDECKÁ, E. *Anatómia ľudského tela. I. 4. vydanie.* Bratislava : SAP, 2021, 510 s. ISBN 9788089607891
- MRÁZ, P., BELEJ, K., BEŇUŠKA, J., HOLOMÁŇOVÁ, A., MACKOVÁ, M., ŠTEŇOVÁ, J. *Anatómia ľudského tela. II.* Bratislava : SAP, 2021, 496 s. ISBN 9788089607921
- KUBÍKOVÁ, E., EL FALOUGY, H. a Kolektív. *Klinická anatómia.* Bratislava: Univerzita Komenského, 2020, 330 s. ISBN 978-80-223-5103-4.
- NETTER, F. H. *Netterov anatomický atlas človeka. Preklad 7. vyd.* Bratislava: Lindeni, 2020. 792 s. ISBN 9788056617908

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 2691

A	B	C	D	E	FX
33,04	21,0	20,44	13,01	9,7	2,82

**Lecturers:** prof. MUDr. Štefan Polák, CSc., doc. MUDr. Eliška Kubíková, PhD., MPH, doc. RNDr. Ladislav Guller, CSc., doc. MUDr. Anna Holomáňová, CSc., Mgr. Katarína Bevízová, PhD., MUDr. Hisham El Falougy, PhD., doc. MUDr. Zora Haviarová, PhD., RNDr. Petra Lukáčiková, PhD., doc. RNDr. Peter Weisman, PhD., Mgr. Vladislava Zohdi, PhD., MUDr. Andrej Mifkovič, PhD., Mgr. Tomáš Havránek, PhD., MUDr. Tomáš Barczy, PhD., Stanislav Malakhov, PhD., MUDr. Olia El Hassoun Sečanská, PhD.

**Last change:** 24.05.2024

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK_1/L-S-VL-116/19	<b>Course title:</b> Angiology - Vascular Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 80% attendance at the lectures - working out a seminar work Final exam: - written test (minimum 60% of correct answers) - theoretical exam: 1 question Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: getting knowledge on reasons, clinical pathophysiology, contemporary diagnostic and therapeutic methods about diseases of the arterial, venous and lymphatic system Skills: ankle –brachial index measurement, basic orientation about ultrasound investigation of limb vessels, evaluation of angiographic findings, differential diagnosis of the diseases of vessels	
<b>Class syllabus:</b> Angiology - Vascular medicine – basic terms and definitions, history. Atherosclerosis as a generalized disease. Risk factors for atherosclerosis PAD - Peripheral arterial disease of extremities – diagnostic and conservative therapy. Ankle – brachial index measurement. Primary and secondary vasculitides. Giant cell arteritis. Takayasu arteritis. Winiwarter-Buerger disease. Raynaud´s syndrome and disease. Basic principles of invasive diagnostic and endovascular therapy of arterial diseases. Diseases of the aorta, aneurysms, dissections – etiopathogenesis, diagnostic and treatment. Disease of the carotid, renal and visceral arteries - etiopathogenesis, diagnostic methods and treatment. Deep venous thrombosis - etiopathogenesis, diagnostic methods and conservative therapy. Superficial venous thrombosis - etiopathogenesis, diagnostic methods and conservative treatment.	

<p>Chronic venous disease and insufficiency. Ulcus cruris – differential diagnosis.  Basic principles of endovascular therapy of venous diseases.  Life threatening conditions in angiology/vascular medicine.  Pain of the limbs – differential diagnosis.  Oedemas of the limbs – differential diagnosis.</p>																	
<p><b>Recommended literature:</b></p> <ol style="list-style-type: none"> <li>1. Kučera M, Čelovská D, Štvrtinová V: Vyšetrovacie metódy vo vaskulárnej medicíne. - 1. vyd. - Bratislava : SAP - Slovak Academic Press, 2020. - 108 s.</li> <li>2. Štvrtinová V. et al: Venózný tromboembolizmus. - 1. vyd. - Bratislava : SAP - Slovak Academic Press, 2018. - 388 s.</li> <li>3. Čelovská, D, Štvrtinová V: Periférne artériové ochorenie dolných končatín a globálne kardiovaskulárne riziko. - 1. vyd. - Bratislava : Slovak Academic Press, 2017. - 90 s</li> <li>4. Michiels, JJ, Moosdorf, W. Štvrtinová, V. et al: Diagnosis and treatment of DVT and prevention of DVT recurrence and the PTS: bridging the gap between DVT and PTS in the primary care setting or outpatient ward. In: Journal of Vascular Diagnostics and Interventions [elektronický zdroj]. - Vol. 5 (2017), s. 21-34.</li> <li>5. Maďarič J, Štvrtinová, V: Vybrané kapitoly z angiológie : Odporúčania a komentáre k diagnostickým a liečebným postupom vybraných vaskulárnych ochorení. - 1. vyd. - Bratislava : Slovak Academic Press, 2014. - 75 s.</li> <li>6.Andreozzi, GM, Kalodiki, E, Štvrtinová, V.et al: Consensus Document on Intermittent Claudication from the Central European Vascular Forum(CEVF)-3rd revision). In: International Angiology. - Vol. 33, No. 4 (2014), s. 329-347.</li> <li>7. Kalodiki E, Štvrtinová V, Allegra, C. et al: Superficial vein thrombosis: a consensus statement. In: International Angiology. - Vol. 31, No. 3 (2012), s. 203-216.</li> </ol>																	
<p><b>Languages necessary to complete the course:</b>  Slovak</p>																	
<p><b>Notes:</b></p>																	
<p><b>Past grade distribution</b>  Total number of evaluated students: 90</p> <table border="1"> <thead> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>FX</th></tr> </thead> <tbody> <tr> <td>96,67</td><td>3,33</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td></tr> </tbody> </table>						A	B	C	D	E	FX	96,67	3,33	0,0	0,0	0,0	0,0
A	B	C	D	E	FX												
96,67	3,33	0,0	0,0	0,0	0,0												
<p><b>Lecturers:</b> prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Juraj Maďarič, PhD., MPH</p>																	
<p><b>Last change:</b> 20.05.2025</p>																	
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>																	

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚMVS/L-S-VL-100/25	<b>Course title:</b> Basic Clinical Skills 1 - practice
<b>Educational activities:</b> <b>Type of activities:</b> practice <b>Number of hours:</b> <b>per week: per level/semester:</b> 40s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> on-site learning, clinical assignments and supervision	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 4.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚMVS/L-S-VL-052/25 - Basic clinical skills 2 or LF.ÚSLLE/L-S-VL-052/16 - Nursing 2	
<b>Course requirements:</b> 100% clinical practice attendance	
<b>Learning outcomes:</b> The aim of the subject is to obtain knowledge and practical skills from nursing care in inpatient internal departments. Clinical training of students is provided under the supervision of the head of the department and the head nurse. Knowledge: nursing care, patient's' medical records, practical implementation of nursing procedures Skills: safe working habits, basic nursing care, vital signs monitoring, collecting biological specimens, administration of different medication forms	
<b>Class syllabus:</b> Care of patient's basic needs. Vital signs monitoring. Blood specimen collection. Urine specimen collection. Collection of other types of biological specimen. Assistance with urinary catheterization. Assistance with enema administration. Drug administration - topical, enteral, parenteral administration. Oxygen therapy. Injection administration - intradermal, subcutaneous, intramuscular, intravenous. Intravenous cannulation. Administration of infusion therapy. ECG.	
<b>Recommended literature:</b> Dobiášová, E., Vojteková, I., Kostičová, M., Mazalánová, A. 2023. Vybrané postupy v ošetrovatel'stve pre študentov všeobecného lekárstva. Bratislava: SAP, 2023. 165 s. Grežďová, I., Polhorská, M. 2018. Professional nursing procedures 1. Textbook for general medicine study programme. Slovak Academic Press s.r.o., Bratislava, 2018. 110 p. Polhorská, M. Grežďová, I., 2018. Professional nursing procedures 2. Textbook for general medicine study programme. Slovak Academic Press s.r.o., Bratislava, 2018. 104 p.	
<b>Languages necessary to complete the course:</b> Slovak	

<b>Notes:</b>
<b>Past grade distribution</b> Total number of evaluated students: 0
ABS0
0,0
<b>Lecturers:</b> MUDr. Silvia Hnilicová, PhD.
<b>Last change:</b> 01.07.2025
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚMVS/L-S-VL-101/25	<b>Course title:</b> Basic Clinical Skills 2 - practice
<b>Educational activities:</b> <b>Type of activities:</b> practice <b>Number of hours:</b> <b>per week: per level/semester:</b> 40s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> on-site learning, clinical assignments and supervision	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 6.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚMVS/L-S-VL-052/25 - Basic clinical skills 2 or LF.ÚSLLE/L-S-VL-052/16 - Nursing 2	
<b>Course requirements:</b> 100% clinical practice attendance	
<b>Learning outcomes:</b> The aim of the subject is to obtain knowledge and practical skills in nursing care in inpatient surgical departments. Clinical training of students is provided under the supervision of the head of the department and of the head nurse. Knowledge: nursing care, patient's' medical records, practical implementation of nursing procedures Skills: vital signs monitoring, specimen collection, administration of different medication forms, wounds treatment and redressing	
<b>Class syllabus:</b> Vital signs monitoring. Blood specimen collection. Urine specimen collection. Collection of other types of biological specimen. Assistance with urinary catheterization. Care for patients with permanent catheter. Assistance with enema administration. Drug administration - topical, enteral, parenteral administration. Preparing and administering injections (intradermal, subcutaneous, intramuscular, intravenous). Intravenous cannulation. Administration of infusion therapy. Oxygen therapy. Assistance with blood transfusion therapy. Preparing and assisting with wound treatment and redressing. Bandages application. ECG.	
<b>Recommended literature:</b> Dobiášová, E., Vojteková, I., Kostíčová, M., Mazalánová, A. 2023. Vybrané postupy v ošetrovatel'stve pre študentov všeobecného lekár'stva. Bratislava: SAP, 2023. 165 s. Grežd'ová, I., Polhorská, M. 2018. Professional nursing procedures 1. Textbook for general medicine study programme. Slovak Academic Press s.r.o., Bratislava, 2018. 110 p. Polhorská, M. Grežd'ová, I., 2018. Professional nursing procedures 2. Textbook for general medicine study programme. Slovak Academic Press s.r.o., Bratislava, 2018. 104 p.	

<b>Languages necessary to complete the course:</b> Slovak
<b>Notes:</b>
<b>Past grade distribution</b> Total number of evaluated students: 0
ABS0
0,0
<b>Lecturers:</b> MUDr. Silvia Hnilicová, PhD.
<b>Last change:</b> 01.07.2025
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KO/L-S-VL-165/19	<b>Course title:</b> Basic Surgical Procedures in Ophthalmology (orbit, adnexa and eyeglobe)
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the practicals /lectures - 1 written test (minimum 60% of correct answers) + essay Final exam: - theoretical exam: 3 questions Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge:Skills :basic knowledge of anatomy, histopathology, general principles in surgery	
<b>Class syllabus:</b> Fundamentals of ophthalmic surgery. Course is a group os separate sections like orbital surgery, eyelid surgery and oculoplastics, cataract surgery, corneal diseases and refractive surgery, eye	
<b>Recommended literature:</b> <a href="https://www.martinus.sk/?uItem=23796">https://www.martinus.sk/?uItem=23796</a> <a href="https://www.martinus.sk/?uItem=90599">https://www.martinus.sk/?uItem=90599</a> <a href="https://www.martinus.sk/?uItem=241697">https://www.martinus.sk/?uItem=241697</a>	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>					
Total number of evaluated students: 10					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. PhDr. Alena Furdová, PhD., MPH, MUDr. Jela Valášková, PhD., MPH					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KO/L-S-VL-171/20	<b>Course title:</b> Basic Surgical Procedures in Ophthalmology (orbit, adnexa and eyeglobe)
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Lectures: 24 hours/semester Individual study: 26 hours/semester Method of educational activities: combined Practicals/interships: Self-study: Form of educational activities: combined	
<b>Learning outcomes:</b> Knowledge:Skills ::basic knowledge of anatomy, histopathology, general principles in surgery	
<b>Class syllabus:</b> Fundamentals of ophthalmic surgery. Course is a group os separate sections like orbital surgery, eyelid surgery and oculoplastics, cataract surgery, corneal diseases and refractive surgery, eye trauma, glaucoma, pediatric ophthalmology and strabismus, and vitreoretinal diseases surgery. Principles of pre and postop care of patients. Students will be able to participate in simulation of certain operations according to individual schedule.	
<b>Recommended literature:</b> <a href="https://www.martinus.sk/?uItem=23796">https://www.martinus.sk/?uItem=23796</a> <a href="https://www.martinus.sk/?uItem=90599">https://www.martinus.sk/?uItem=90599</a> <a href="https://www.martinus.sk/?uItem=241697">https://www.martinus.sk/?uItem=241697</a>	
<b>Languages necessary to complete the course:</b> slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>					
Total number of evaluated students: 18					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. PhDr. Alena Furdová, PhD., MPH, MUDr. Jela Valášková, PhD., MPH					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚMVS/L-S-VL-051/25	<b>Course title:</b> Basic clinical skills 1
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Form of education: combined - On-site learning: simulations and training of professional procedures - self-study with online support	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the practicals - Final exam: practical exam with checklist 70% written test 30% (minimum 70% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%.	
<b>Learning outcomes:</b> By the end of the course, students will be able to: <b>Knowledge</b> 1. Explain the principles of safe, patient-centered clinical care, interprofessional cooperation. 2. Describe the structure and purpose of medical records and documentation 3. Identify the indications, risks, and basic steps of common clinical procedures performed by healthcare teams. <b>Skills</b> 4. Demonstrate correct hand hygiene and use of personal protective equipment (PPE) according to infection control guidelines. 5. Perform accurate measurement and documentation of vital signs (temperature, pulse, blood pressure, respiratory rate, oxygen saturation). 6. Assist in basic patient care activities such as hygiene, mobility, and comfort positioning, bowel care. 7. Conduct a structured patient assessment using the ABCDE approach in simulated scenarios. 8. Use the ISBAR tool to communicate clinical information effectively during handover or when escalating care. 9. Collect biological samples (blood, urine, swabs) using safe and standardized techniques.	

10. Demonstrate safe techniques for administering medications via non-invasive routes (topical, enteral, parenteral administration). Oxygen therapy.
  11. Document clinical observations and procedures accurately in patient charts.
- Attitudes & Professionalism**
10. Exhibit professional behavior, empathy, and respect when interacting with patients, simulated patients, and healthcare team members. Basic communication skills.
  11. Apply safety principles for both patients and healthcare providers in all clinical interactions.

**Class syllabus:**

I. Introduction to Clinical Skills in Medical Practice – simulation-based

1. Introduction to Clinical Skills in Medical Education

- o Role of clinical skills in early medical training

2. Patient and Provider Safety

- o Hand hygiene and infection prevention
- o Personal protective equipment (PPE)
- o Principles of safe practice and error prevention

3. Introduction to Clinical Communication

- o ISBAR communication tool
- o Basic communication skills

4. Structured Clinical Assessment

- o ABCDE approach: overview and rationale
- o Recognizing signs of clinical deterioration

5. Vital Signs and Early Warning Signs

- o Physiology, measurement, and interpretation
- o Integrating vital signs into patient assessment

6. Specimen Collection and Medication Safety

- o Blood, urine, and swab collection

7. Catheterization

8. Medical Documentation and Teamwork

- o Understanding patient records (SOAP notes, vital signs charts)
- o Interprofessional collaboration (nurse-physician interface)

9. Professionalism and Ethics

- o Confidentiality, respect, empathy
- o Ethical behavior in clinical environments

10. Oxygen Therapy

- o Use of nasal cannula and simple face masks

11. ECG

12. Documentation Practice

- o Recording vital signs, procedure notes, observations, imaging

13. Simulation Medicine Basics

**Recommended literature:**

Dobiášová, E., Vojteková, I., Kostičová, M., Mazalánová, A. 2023. Vybrané postupy v ošetrovatel'stve pre študentov všeobecného lekár'stva. Bratislava: SAP, 2023. 165 s.

Grežd'ová, I., Polhorská, M. 2018. Professional nursing procedures 1. Textbook for general

medicine study programme. Slovak Academic Press s.r.o., Bratislava, 2018. 110 p. Polhorská,

M. Grežd'ová, I., 2018. Professional nursing procedures 2. Textbook for general medicine study programme. Slovak Academic Press s.r.o., Bratislava, 2018. 104 p.

Bickley, L. S. (2020). Bates' guide to physical examination and history taking (13th ed.). Wolters Kluwer.



<b>Languages necessary to complete the course:</b> Slovak						
<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> MUDr. Silvia Hnilicová, PhD., PhDr. Eva Dobiášová, PhD., PhDr. Iveta Grežd'ová, PhD., doc. PhDr. Anna Mazalánová, PhD., MPH, PhDr. Miriam Polhorská, PhD., PhDr. Ivana Vojteková, PhD.						
<b>Last change:</b> 30.06.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚMVS/L-S-VL-052/25	<b>Course title:</b> Basic clinical skills 2
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Form of education: combined - On-site learning: simulations and training of professional procedures - self-study with online support	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚMVS/L-S-VL-051/25 - Basic clinical skills 1	
<b>Course requirements:</b> - 100% attendance at the practicals Final exam: practical exam 70 % written test 30% Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%.	
<b>Learning outcomes:</b> By the end of the course, students will be able to demonstrate basic practical clinical skills in patient care. <b>Knowledge</b> 1. Explain the principles of safe, patient-centered clinical care, including interprofessional collaboration. 2. Describe the structure and purpose of medical documentation. 3. Identify the indications, risks, and basic steps of common clinical procedures performed by healthcare teams. 4. Describe the principles of parenteral medication administration and infusion therapy. 5. Explain the principles and safety measures for administering blood transfusions. 6. Characterize aseptic techniques in wound care and the use of specialized dressings. <b>Skills</b> 7. Demonstrate correct hand hygiene and the use of personal protective equipment (PPE). 8. Accurately measure and record vital signs. 9. Assist with basic patient care activities 10. Conduct structured patient assessments using the ABCDE approach. 11. Use the ISBAR tool for structured clinical communication. 12. Collect biological samples safely and correctly (blood, urine, swabs). 13. Prepare and administer intravenous therapy and infusions.	

14. Prepare and safely administer blood transfusions in simulated scenarios. 15. Perform wound care using aseptic technique and apply various types of dressings. 16. Accurately document clinical procedures and observations. Attitudes and Professionalism 18. Demonstrate professionalism, empathy, and respectful communication with patients, simulated patients, and the healthcare team. 19. Apply safety principles for both patients and healthcare providers in all clinical procedures.						
<b>Class syllabus:</b> 1. Basic communication techniques and structured handover (ISBAR) 2. Parenteral medication administration – intradermal, subcutaneous, intramuscular, intravenous, intraosseous 3. Fundamentals of intravenous infusion therapy 4. Blood transfusion 5. Wound management 6. Basics of simulation-based medical education and clinical decision-making 7. Clinical simulation scenarios in inpatient and outpatient settings 8. Communication simulations using the ISBAR framework 9. ABCDE approach						
<b>Recommended literature:</b> Dobiášová, E., Vojteková, I., Kostíčová, M., Mazalánová, A. 2023. Vybrané postupy v ošetrovatel'stve pre študentov všeobecného lekárstva. Bratislava: SAP, 2023. 165 s. Grežd'ová, I., Polhorská, M. 2018. Professional nursing procedures 1. Textbook for general medicine study programmeSlovak Academic Press s.r.o., Bratislava, 2018. 110 p. Polhorská, M. Grežd'ová, I., 2018. Professional nursing procedures 2. Textbook for general medicine study programme. Slovak Academic Press s.r.o., Bratislava, 2018. 104 p. Bickley, L. S. (2020). Bates' guide to physical examination and history taking (13th ed.). Wolters Kluwer.						
<b>Languages necessary to complete the course:</b> Slovak						
<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> MUDr. Silvia Hnilicová, PhD., PhDr. Eva Dobiášová, PhD., PhDr. Iveta Grežd'ová, PhD., doc. PhDr. Anna Mazalánová, PhD., MPH, PhDr. Miriam Polhorská, PhD., PhDr. Ivana Vojteková, PhD.						
<b>Last change:</b> 01.07.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KK/L-S-VL-167/19	<b>Course title:</b> Basics of Clinical Cardiology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% participation at the practical exercises - to pass 1 written exam (at least 60 % required - evaluation of the exam: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less - practical exam (patient examination) The overall evaluation is determined from the average of obtained evaluations	
<b>Learning outcomes:</b> Knowledge: Diagnostics and differential diagnostics of common cardiological syndromes Skills: ECG assessment, ability to indicate non-invasive and invasive examinations relevant to the working diagnosis, basics of interpretation of findings.	
<b>Class syllabus:</b> Course “Basics of clinical cardiology” combines theoretical teaching with clinical patient examination, ECG , X-ray description and analysis of the available imaging studies. Student learns to build up a working diagnosis , design a plan of additional examinations and patient management. Main topics are: Syncope; Acute short of breath; Acute coronary syndromes; Arterial hypertension; Atrial fibrillation; Chronic SZ; Interventional cardiology; Pulmonary hypertension; Cardiomyopathy; Chronic coronary heart disease; Sudden cardiac death	
<b>Recommended literature:</b> S Kiňová, I Hulín et al. Interná medicína, 2013 Š Hrušovský. Interná propedeutika , 2013 M. Chizner . Clinical Cardiology Made Ridiculously Simple, 2016	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>					
Total number of evaluated students: 112					
A	B	C	D	E	FX
56,25	33,93	9,82	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Eva Goncalvesová, CSc.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KK/L-S-VL-170/19	<b>Course title:</b> Basics of Clinical Cardiology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% participation at the practical exercises - to pass 1 written exam (at least 60 % required - evaluation of the exam: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less - practical exam (patient examination) The overall evaluation is determined from the average of obtained evaluations	
<b>Learning outcomes:</b> Knowledge: Diagnostics and differential diagnostics of common cardiological syndromes Skills: ECG assessment, ability to indicate non-invasive and invasive examinations relevant to the working diagnosis, basics of interpretation of findings.	
<b>Class syllabus:</b> Course “Basics of clinical cardiology” combines theoretical teaching with clinical patient examination, ECG , X-ray description and analysis of the available imaging studies. Student learns to build up a working diagnosis , design a plan of additional examinations and patient management. Main topics are: Syncope; Acute short of breath; Acute coronary syndromes; Arterial hypertension; Atrial fibrillation; Chronic SZ; Interventional cardiology; Pulmonary hypertension; Cardiomyopathy; Chronic coronary heart disease; Sudden cardiac death	
<b>Recommended literature:</b> Eva Goncalvesová a kol. Vybrané kapitoly z klinickej kardiológie, 2020 , mefanet <a href="https://portal.fmed.uniba.sk/clanky.php?aid=448">https://portal.fmed.uniba.sk/clanky.php?aid=448</a> Aleš Linhart a kol Vyšetrovací postupy u kardiovaskulárních onemocnění, Maxdorf jessenius, 2021	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>					
Total number of evaluated students: 60					
A	B	C	D	E	FX
50,0	31,67	18,33	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Eva Goncalvesová, CSc.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.PK/L-S-VL-176-4/22	<b>Course title:</b> Basics of communication in medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - attendance at the lectures - 2 seminar papers Final exam: - written test (minimum 60% of correct answers) - oral exam: 1 question (social communication, specifics of communication in clinical practice). Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: social communication, communication in medicine, effective communication in clinical practise, doctor – patient interview, communication skills, assertiveness, empathy, challenging life situations, burnout syndrome, mobbing. Skills: Student will be able to manage communication strategies, styles and assertive techniques during interaction with patient, also during communication with relatives but also in other interpersonal interactions. Student will consider individual specifics of the patient from perspective of age, type of treatment characteristic of disease or from perspective of disability during provision of healthcare. Student will apply recommended approaches in solution of conflicts in clinical practice and in prevention of negative social phenomena.	
<b>Class syllabus:</b> Communication in medicine, doctor-patient interview. Evaluation and devaluation in the doctor-patient relationship. Specifics of communication with the patient in various forms of health care, communication in relation to age, treatment, prognosis, physical, sensory and mental disabilities.	



Communication with support persons. Conflicts and their resolution. Assertiveness, assertive techniques and rights. Burnout syndrome and mobbing.					
<b>Recommended literature:</b> Morovicsová, E. a kol.: Komunikácia v medicíne. Bratislava: UK, 2. vyd. 2014, 212 s. ISBN 978-80-223-3620-8. Ptáček, R., Bartůněk, P.: Lékař a pacient v moderní medicíně. Praha: Grada, 2015, 190 s., ISBN 9788024757889. Novák, T., Capponi, V.: Asertivně do života. Praha: Grada, 3. vyd. 2012, 168 s. ISBN 978-80-247-3869-7. Rosenberg, M. B.: Nenásilná komunikace. Praha: Portál, 2016. 224. ISBN 978-80-262-0530-2.					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 25					
A	B	C	D	E	FX
68,0	24,0	4,0	4,0	0,0	0,0
<b>Lecturers:</b> doc. PhDr. Eva Morovicsová, PhD., MPH					
<b>Last change:</b> 15.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.PK/L-S-VL-176-5/22	<b>Course title:</b> Basics of communication in medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - attendance at the lectures - 2 seminar papers Final exam: - written test (minimum 60% of correct answers) - oral exam: 1 question (social communication, specifics of communication in clinical practice). Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: social communication, communication in medicine, effective communication in clinical practise, doctor – patient interview, communication skills, assertiveness, empathy, challenging life situations, burnout syndrome, mobbing. Skills: Student will be able to manage communication strategies, styles and assertive techniques during interaction with patient, also during communication with relatives but also in other interpersonal interactions. Student will consider individual specifics of the patient from perspective of age, type of treatment characteristic of disease or from perspective of disability during provision of healthcare. Student will apply recommended approaches in solution of conflicts in clinical practice and in prevention of negative social phenomena.	
<b>Class syllabus:</b> Communication in medicine, doctor-patient interview. Evaluation and devaluation in the doctor-patient relationship. Specifics of communication with the patient in various forms of health care, communication in relation to age, treatment, prognosis, physical, sensory and mental disabilities.	

Communication with support persons. Conflicts and their resolution. Assertiveness, assertive techniques and rights. Burnout syndrome and mobbing.					
<b>Recommended literature:</b> Morovicsová, E. a kol.: Komunikácia v medicíne. Bratislava: UK, 2. vyd. 2014, 212 s. ISBN 978-80-223-3620-8. Ptáček, R., Bartůněk, P.: Lékař a pacient v moderní medicíně. Praha: Grada, 2015, 190 s., ISBN 9788024757889. Novák, T., Capponi, V.: Asertivně do života. Praha: Grada, 3. vyd. 2012, 168 s. ISBN 978-80-247-3869-7. Rosenberg, M. B.: Nenásilná komunikace. Praha: Portál, 2016. 224. ISBN 978-80-262-0530-2.					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 1					
A	B	C	D	E	FX
0,0	100,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. PhDr. Eva Morovicsová, PhD., MPH					
<b>Last change:</b> 15.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLBG/L-S-VL-006/25	<b>Course title:</b> Biology and Human Genetics 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 4	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the practicals 2 seminar work 2 written test (minimum 60% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> To gain basic information about cell morphology and physiology and about molecular biology and genetics. <b>Knowledge:</b> <ul style="list-style-type: none"> <li>- Morphology, physiology and genome of prokaryotic and eukaryotic cells</li> <li>- Morphology, function and biogenesis of cell organelles</li> <li>- Cell transport, intercellular spaces and intercellular communication, cell receptors</li> <li>- Reproduction and cell cycle of eukaryotic cells</li> <li>- Cell and tissue cultures</li> <li>- Infectious diseases caused by prokaryotic and single-cellular organisms, their life cycle</li> <li>- Types of microscopes, their design and usage possibilities</li> <li>- Basics of relation between micro- and macroorganisms</li> <li>- Viral genome characteristics and reproduction</li> <li>- Molecular biology: structure and function of DNA and RNA, DNA replication, transcription, translation and their regulation, the genetic code, the genes of prokaryotic and eukaryotic cells, gene expression, form of existence and entry of foreign DNA in a cell</li> <li>- Insertion sequences and transposons, antibiotic resistance (R plasmids, DNA recombination, recombinant techniques, vectors), gene therapy</li> <li>- Obtaining and material processing for DNA analysis, isolation of nucleic acids</li> <li>- An overview of the basic methods used in molecular genetics and the possibilities of their usage</li> </ul> <b>Skills:</b>	

- Enhancing the skills of the microscopic techniques (light microscopy)
- Preparation of native and simple fixed microscopic specimens
- Cultivation of eukaryotic cells and tissues in vitro
- Morphological diagnosis of bacterial and some parasitic protozoa
- Utilization of selected methods of molecular genetics - the obtaining, incubation and storage of biological material, isolation of DNA from tissue, gel separation of DNA fragments, DNA quantitation, restriction, blotting, DNA denaturation and renaturation

### **Class syllabus:**

Cell as the basic structural and functional unit: morphology, cell surfaces, nucleus, nucleolus, mitochondria, endoplasmic reticulum, ribosomes, Golgi apparatus, lysosomes, cytoskeleton. Intercellular spaces and intercellular communication. Transport of substances - glycocalyx, membrane receptors. Cell cycle: amitosis, mitosis (mitotic apparatus, endomitosis). Cell and tissue cultures. In vitro cell culture conditions, culture process, regenerative medicine. Viruses: genome, reproduction, mutations and recombinations, oncogenic viruses and acute transforming viruses. Prokaryotic cells - morphology, structure, genome. Parasexual process in bacteria and CRISPR/Cas system. Differences between prokaryotes and eukaryotes. Protista. Molecular biology: structure of DNA and RNA, denaturation and renaturation of DNA, replication of DNA, transcription, translation, regulation of proteosynthesis and post-translational modifications, genetic code. Genes of prokaryotic and eukaryotic cells, insertion sequences and transposons, resistance to antibiotics (plasmids, recombinant DNA technology, vectors). DNA analysis and application of molecular biology in medical practice.

### **Recommended literature:**

Daniel Böhmer, Ľuboš Danišovič, Vanda Repiská: Lekárska biológia a genetika 1. Druhé doplnené vydanie. Bratislava: Univerzita Komenského v Bratislave, 2020. - 102 s. ISBN 978-80-223-4922-2

Repiská Vanda, Böhmer Daniel, Danišovič Ľuboš, Klimová Daniela: Medical biology and molecular genetics. 1. vyd. - Bratislava: Univerzita Komenského v Bratislave, 2020. - 306 s. ISBN 978-80-223-4984-0

Böhmer Daniel, Danišovič Ľuboš, Repiská Vanda,: Príručka k praktickým cvičeniam z lekárskej biológie a humánnej genetiky 1. - 1. vyd. - Bratislava: Asklepios, 2009. - 90 s. ISBN 978-80-7167-142-8

Gbelcová Helena, Repiská, Vanda, Shawkatová Ivana: Nukleové kyseliny a proteíny: Analytické metódy a postupy. 1. vyd. - Bratislava: Univerzita Komenského, 2017. - 316 s. ISBN 978-80-223-4472-2

### **Languages necessary to complete the course:**

slovak

### **Notes:**

### **Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. RNDr. Ľuboš Danišovič, PhD., prof. RNDr. Vanda Repiská, PhD., MPH, doc. MUDr. Daniel Böhmer, PhD., doc. Ing. Helena Gbelcová, PhD., RNDr. Ľubica Milošovičová, PhD., RNDr. Marcela Kuniaková, PhD., RNDr. Zuzana Varchulová Nováková, PhD., MUDr. Martina Čulenová, PhD., RNDr. Andrea Pastoráková, PhD., Mgr. Daniela Klimová, PhD., RNDr. Petra Priščáková, PhD.

<b>Last change:</b> 23.01.2025
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLBG/L-S-VL-007/16	<b>Course title:</b> Biology and Human Genetics 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 7	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚLBG/L-S-VL-006/16 - Biology and Human Genetics 1 or LF.ÚLBG/L-S-VL-006/25 - Biology and Human Genetics 1	
<b>Course requirements:</b> 100% attendance at the practicals 1 seminar work 2 written test (minimum 60% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. Final exam: a) test (minimum 60% of correct answers) b) theoretical exam: 3 questions (cytology,molecular genetics, human genetics)	
<b>Learning outcomes:</b> To gain knowledge about normal and pathological genetic traits in man, their etiology and diagnostics. Knowledge: <ul style="list-style-type: none"> <li>- Organization of the human genome: types of DNA, gene structure, homeoboxes and homeodomain DNA - histone complex, the human genome project</li> <li>- Chromosomal inheritance, the structure of chromosomes, nomenclature, identification techniques</li> <li>- Meiosis, differences between spermiogenesis and oogenesis, disorders and their consequences</li> <li>- Cell cycle regulation</li> <li>- Molecular mechanisms of cell cycle deregulation</li> <li>- Molecular basis of carcinogenesis - oncogenes, their function in the body</li> <li>- Oncogenes mutations and their relation to malignancy</li> <li>- Biology of the most common forms of cancer: breast, prostate and ovary, gestational trophoblastic disease, familial cancer</li> <li>- Tumor suppressor genes - their function and type of mutations</li> <li>- Cell death and apoptosis</li> <li>- Mutagenesis, distribution and mutagens basic characteristics, reparation mechanisms</li> </ul>	

- Syndrome of increased spontaneous chromosomal instability
- Malignant diseases associated with typical rearrangement of chromosomes
- Basic methods of human genetics (twin studies, genealogical method, population genetics)
- Monogenic disease (autosomal dominant and recessive inheritance, X-linked dominant and recessive inheritance)
- Multifactorial inheritance of quantitative and qualitative traits - normal variability
- Congenital defects with multifactorial inheritance
- Pathologies based on multifactorial type of inheritance, congenital developmental defects, civilization diseases, threshold effect theory, predisposition to civilization diseases, possibilities of prenatal diagnosis
- Classical cytogenetics (interphase and mitosis)
- Chromosomal aberrations in humans (numeric, structural), the mechanism of their formation, frequency and the type of the most common chromosomal aberrations, the risk of recurrence, aberrations of sex chromosomes X and Y, effect of gene dosage, mosaicism
- The frequency of birth defects in the miscarriages population in newborns, prenatal genetic diagnosis and prognosis
- Molecular basics of embryogenesis, the role of apoptosis
- Teratogenesis - basic characteristics, mechanism of action, possibilities of differential diagnosis

#### Skills:

- The ability to establish the proportion of hereditary and non-hereditary factors in the trait development
- Design the standard family tree
- Application of Hardy-Weinberg law
- Cytogenetic analysis in interphase (X and Y chromatin)
- Cytogenetic analysis in metaphase
- Determination of the risk of the most common chromosomal aberrations according to their type, parents age, or by meiosis process
- Determination of the risk of transmission of structural chromosomal aberrations
- Mutagens testing evaluation (gene mutations, chromosomal aberrations, reparation tests) comparison of positive or negative control and mutagens

#### **Class syllabus:**

Chromosomal base of inheritance: structure of chromosomes, nomenclature, methods of identification. Meiosis. Differences between spermatogenesis and oogenesis. Classification of inherited diseases: single gene (autosomal dominant, codominant and recessive, X-linked), interaction of genes. Chromosomal aberrations, mechanisms of origin, frequencies. Aberrations of chromosomes X and Y and gene dosage effect. Mosaicism. Organization of human genome: Human Genome Project (HGP) - goals, results and ethical issues associated with the project, types of DNA, structure of gene, homeoboxes and homeodomains. DNA-histones complex. Cell cycle regulation. Oncogenesis - molecular base of cancerogenesis, oncogenes, their function in organism, c-onc, v-onc. Mutations of oncogenes, relation to malignancy. Tumor suppressor genes (TSG) - function, character of TSG mutations. Multistep theory, gene dosage effect. DNA repair mechanisms. Syndromes of increased spontaneous fragility of chromosomes. Neoplasmas associated with typical rearrangement of chromosomes. Molecular mechanisms of cell cycle deregulation. Gene therapy. Epigenetics. Apoptosis. Multifactorial and polygenic inheritance. Normal variability. Qualitative and quantitative traits, methods of genetical analysis. Pathological traits with multifactorial inheritance, malformations, civilisation diseases. Threshold effect. Predisposition to "civilisation" diseases. Mutagenesis, types and basic characteristics of mutagens. Mutation frequency. Molecular basis of embryogenesis, role of apoptosis in embryogenesis.



Teratogenesis - basic characteristics, mechanisms of origin, possibilities of differential diagnosis. Occurrence of congenital defects in populations of spontaneous abortions and newborns. Prenatal genetic diagnosis and prognosis.					
<b>Recommended literature:</b> Repiská Vanda, Böhmer Daniel, Braxatorisová Tatiana, Malová Jana: Lekárska biológia a genetika 2. 1. vyd. Bratislava: Univerzita Komenského v Bratislave, 2020. - 135 s. ISBN 978-80-223-4929-1 Repiská Vanda, Böhmer Daniel, Danišovič Ľuboš, Klimová Daniela: Medical biology and molecular genetics.- 1. vyd. - Bratislava: Univerzita Komenského v Bratislave, 2020. - 306 s. ISBN 978-80-223-4984-0 Nečas, O. a kol.: Obecná biologie pro lékařské fakulty, 3. prepracované vydanie, vyd. Jinočany: Nakladatelství a vydavatelství H a H, 2000. 554 s. ISBN 80-86022-46-3. Sršeň, Š. - Sršňová, K.: Základy klinickej genetiky a jej molekulárna podstata, 3. prepracované vydanie, Osveta, Martin, 2000, 410 s. ISBN 80-8063-021-6.					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 3145					
A	B	C	D	E	FX
48,62	11,35	15,74	10,05	13,07	1,18
<b>Lecturers:</b> doc. RNDr. Ľuboš Danišovič, PhD., prof. RNDr. Vanda Repiská, PhD., MPH, doc. MUDr. Daniel Böhmer, PhD., doc. Ing. Helena Gbelcová, PhD., RNDr. Ľubica Milošovičová, PhD., RNDr. Marcela Kuniaková, PhD., MUDr. Martina Čulenová, PhD., RNDr. Zuzana Varchulová Nováková, PhD., RNDr. Andrea Pastoráková, PhD., MUDr. Lajos Gergely, MUDr. Štefan Harsányi, PhD., RNDr. Petra Priščáková, PhD.					
<b>Last change:</b> 29.11.2022					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.FyÚ/L-S-VL-143/19	<b>Course title:</b> Brain - the base for human perception and cognition
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Form of the course: online	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100 % presence in lectures and seminars Submitting of the written assignments and presentations Examination: final written assignment Evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % or less The overall rating is determined as the average of the marks for assignments and the mark for the final written assignment.	
<b>Learning outcomes:</b> <b>Knowledge:</b> By attending the course the student will understand clinical applications of theoretical knowledge on brain and its functions in prevention of brain disorders and management of brain diseases. They will receive the advanced knowledge on pathomechanisms in development of basic central nervous disorders with consequences on behavioural and cognitive functioning <b>Skills:</b> Students will improve their work with scientific literature and interpretation of obtained evidence based information in communication with patients using team based learning.	
<b>Class syllabus:</b> Complex functions of the brain. Functional organization of neural circuits. Neuronal signaling and neuronal plasticity. General principles of cognitive and behavioral neuroscience. Cognitive and behavioral disorders. Perception, attention and awareness and its disorders. Neurobehavioral and neurodevelopmental disorders in children focused on autism. Physiology and pathophysiology of emotions, behaviour and motivation. Higher brain functions including learning, memory and speech/language. Functional specialization of brain hemispheres and sexual dimorphism as the base for personalized medicine.	

**Recommended literature:**

Daniela Ostatníková a kol., Lekárske neurovedy, Solen, 2020  
Cognitive Neuroscience, 5th edition, Banich, M.T. and Compton, R.J., Cambridge University Press, 2023  
Cognitive Neuroscience: A very short Introduction Passingham R., Oxford University Press, 2016  
Aktuálne literárne zdroje podľa odporúčania pedagóga

**Languages necessary to complete the course:**

Slovak

**Notes:**

The subject has limited capacity and can accept 20 students. In case of a higher interest, the first 20 students of the list will be accepted.

**Past grade distribution**

Total number of evaluated students: 119

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Daniela Ostatníková, PhD.

**Last change:** 14.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KDP/L-S-VL-118/19	<b>Course title:</b> Child and Adolescent Psychiatry
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 80% attendance at the lectures/practicals Final exam: - requisition: passing the exam in the subject Psychiatry 2 - theoretical exam: 1 question (content of the subject child and adolescent psychiatry)	
<b>Learning outcomes:</b> Knowledge: general knowledge in the field of child psychiatry, psychopathology, syndromology, nosological units, treatment and prevention. Skills: ability to realise pedopsychiatric assessment, to suggest basic examination procedures and comprehensive management in differential diagnostics	
<b>Class syllabus:</b> - Assessment in Pedopsychiatry (taking a history, differences between the Assessment of a child and an adult psychiatric patient) - Normal Child development and its abnormalities (attachment, specific development disorders of speech and language, specific disorders of school abilities) - Disorders of child-specific social relationships (Elective Mutism, Reactive Attachment Disorder, Disinhibited Social Engagement Disorder) - Child Abuse and Neglect Syndrome, Social Issues in Pedopsychiatry - Autism Spectrum Disorder - Mental retardation - Attention Deficit Hyperactivity Disorder - Conduct Disorder - Tics disorder, Sleep disorders - Disorders of elimination (enuresis, encopresis) - Anxiety disorders (including with onset in childhood) - Post-traumatic stress disorder, Acute Stress Disorder , Adjustment Disorders, - Obsessive Compulsive Disorder (specific in childhood)	

<ul style="list-style-type: none"> <li>- Affective disorders: unipolar depressive disorder (specific in childhood)</li> <li>- Affective disorders: manic episode, bipolar disorder (specific in childhood)</li> <li>- Psychotic disorders: acute transient psychotic disorder, schizophrenia, schizoaffective (specific in childhood)</li> <li>- Eating disorders (mental anorexia, mental bulimia)</li> <li>- Substance Use disorders (specific in childhood)</li> <li>- Internet Gaming Disorder (specifics in childhood)</li> </ul> Principles of pharmacotherapy, psychotherapy (specifics in childhood)					
<b>Recommended literature:</b> <ul style="list-style-type: none"> <li>• Hrdlička, Komárek: Dětský autizmus, Portál, s.r.o., 2014</li> <li>• Hosák, Hrdlička, Libiger a kol: Psychiatrie a pedopsychiatrie, Karlova Univerzita, 2015</li> <li>• Pečeňák, Kořínková a kol: Psychofarmakologie, Wolters kluwer s.r.o., 2016</li> <li>• TREBATICKÁ, Jana. Depresivna porucha v detskom a adolescentnom veku. Bratislava: Univerzita Komenského v Bratislave, 2017, 30 s. ISBN 978-80-223-4428-9.</li> </ul>					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 94					
A	B	C	D	E	FX
71,28	21,28	4,26	2,13	1,06	0,0
<b>Lecturers:</b> doc. MUDr. Jana Trebatická, PhD., MUDr. Zuzana Matzová, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.AÚ/L-S-VL-127/19	<b>Course title:</b> Clinical Anatomy 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> -100% participation in practical exercises - pass 1 written test (at least 60%) - oral examination Test evaluation: A: 200 - 192, B: 191 – 184, C: 183 – 176, D: 175 – 168, E: 167 – 160, Fx: 159 – 0. Oral exam evaluation: A: excellent, B: very good, C: good, D: satisfactory, E: sufficiently, Fx: failed. Final mark of the semester is determined from the average of received scores.	
<b>Learning outcomes:</b> Knowledge: - Knowledge synthesis of systematic and topographical anatomy and their clinical application. Skills: - Analysis of the achieved knowledge from the morphological and clinical point of view. - Clinical application of the gained theoretical information. - Handling morphological basis of diagnostic and therapeutic procedures. - Application of diagnostic and therapeutic procedures on flexible cadavers. - To be familiar with the radio-diagnostic correlation. - Handling interdisciplinary procedures within overlapping morphological and clinical knowledge.	
<b>Class syllabus:</b> Lectures/seminars: - Clinical anatomy of the musculoskeletal system (bones, joints, muscles). - Clinical anatomy of the digestive system. - Clinical anatomy of the respiratory system. - Clinical anatomy of the urinary system. - Clinical anatomy of the female and male reproductive system. - Application of diagnostic and therapeutic procedures to flexible cadavers.	

<ul style="list-style-type: none"> <li>- Mastering radio diagnostic correlation.</li> <li>- Mastering interdisciplinary procedures within the framework of the interweaving of morphological and clinical knowledge.</li> </ul>					
<b>Recommended literature:</b> <ul style="list-style-type: none"> <li>- MRÁZ, P., BÍNOVSKÝ, A., HOLOMÁŇOVÁ, A., OSVALDOVÁ, M., RUTTKAY-NEDECKÁ, E. Anatomia ľudského tela. I. 4. vydanie. Bratislava : SAP, 2021, 510 s. ISBN 9788089607891</li> <li>- MRÁZ, P., BELEJ, K., BEŇUŠKA, J., HOLOMÁŇOVÁ, A., MACKOVÁ, M., ŠTEŇOVÁ, J. Anatomia ľudského tela. II. Bratislava : SAP, 2021, 496 s. ISBN 9788089607921</li> <li>- KUBÍKOVÁ, E., EI FALOUGY, H. a Kolektív. Klinická anatomia. Bratislava: Univerzita Komenského, 2020, 330 s. ISBN 978-80-223-5103-4.</li> <li>- DALLEY, A. F., AGUR, A. M. R. Moore's Clinically Oriented Anatomy. 9th edition. Philadelphia: Wolters Kluwer, 2023, 1160p. ISBN 9781975209544</li> </ul>					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b> The capacity of the subject is limited to 30 students, in the case of higher interest, the first enrolled students will be selected in order.					
<b>Past grade distribution</b> Total number of evaluated students: 154					
A	B	C	D	E	FX
79,22	17,53	2,6	0,0	0,65	0,0
<b>Lecturers:</b> doc. MUDr. Eliška Kubíková, PhD., MPH					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.AÚ/L-S-VL-128/19	<b>Course title:</b> Clinical Anatomy 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.AÚ/L-S-VL-127/19 - Clinical Anatomy 1	
<b>Course requirements:</b> -100% participation in practical exercises - pass 1 written test (at least 60%) - oral examination Test evaluation: A: 200 - 192, B: 191 – 184, C: 183 – 176, D: 175 – 168, E: 167 – 160, Fx: 159 – 0. Oral exam evaluation: A: excellent, B: very good, C: good, D: satisfactory, E: sufficiently, Fx: failed. Final mark of the semester is determined from the average of received scores.	
<b>Learning outcomes:</b> Knowledge: - Knowledge synthesis of systematic and topographical anatomy and their clinical application. Skills: - Analysis of the achieved knowledge from the morphological and clinical point of view. - Clinical application of the gained theoretical information. - Handling morphological basis of diagnostic and therapeutic procedures. - Application of diagnostic and therapeutic procedures on flexible cadavers. - To be familiar with the radio-diagnostic correlation. - Handling interdisciplinary procedures within overlapping morphological and clinical knowledge.	
<b>Class syllabus:</b> Lectures/seminars: - Clinical anatomy of the cardiovascular system. - Clinical anatomy of the lymphatic system. - Clinical anatomy of endocrine glands. - Clinical anatomy of the nervous system. - Clinical anatomy of sense organs. - Clinical anatomy of the skin.	



<ul style="list-style-type: none"> <li>- Application of diagnostic and therapeutic procedures to flexible cadavers.</li> <li>- Mastering radio-diagnostic correlation.</li> <li>- Mastering interdisciplinary procedures within the framework of the interweaving of morphological and clinical knowledge.</li> </ul>					
<b>Recommended literature:</b> <ul style="list-style-type: none"> <li>- MRÁZ, P., BÍNOVSKÝ, A., HOLOMÁŇOVÁ, A., OSVALDOVÁ, M., RUTTKAY-NEDECKÁ, E. Anatomia ľudského tela. I. 4. vydanie. Bratislava : SAP, 2021, 510 s. ISBN 9788089607891</li> <li>- MRÁZ, P., BELEJ, K., BEŇUŠKA, J., HOLOMÁŇOVÁ, A., MACKOVÁ, M., ŠTEŇOVÁ, J. Anatomia ľudského tela. II. Bratislava : SAP, 2021, 496 s. ISBN 9788089607921</li> <li>- KUBÍKOVÁ, E., EL FALOUGY, H. a Kolektív. Klinická anatomia. Bratislava: Univerzita Komenského, 2020, 330 s. ISBN 978-80-223-5103-4.</li> <li>- DALLEY, A. F., AGUR, A. M. R. Moore's Clinically Oriented Anatomy. 9th edition. Philadelphia: Wolters Kluwer, 2023, 1160p. ISBN 9781975209544</li> </ul>					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 118					
A	B	C	D	E	FX
88,14	8,47	0,85	0,0	2,54	0,0
<b>Lecturers:</b> doc. MUDr. Eliška Kubíková, PhD., MPH					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KNM/L-S-VL-136-4/19	<b>Course title:</b> Clinical Applications of Diagnostic and Therapeutic Methods of Nuclear Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2 and LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> - 100% attendance at the practicals - written test (minimum 60% of correct answers) Final exam: - theoretical exam: 3 questions Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: - Deepening of knowledge about clinical applications of diagnostic and therapeutic methods of nuclear medicine, about their position in diagnostic work-up and therapeutic management of selected oncological and neo-oncological diseases - Clinical applications of direct link between diagnostic examinations of nuclear medicine and subsequent treatment, i.e. of the teragnostic principles of nuclear medicine - Acquirement of the theoretical bases of scientific work in the domain of nuclear medicine and understanding the principles of their practical applications Skills: - Capacity of basic image processing and interpretation of findings of diagnostic methods of nuclear medicine - Basics of radionuclide treatment	
<b>Class syllabus:</b> - Clinical applications of diagnostic and therapeutic methods in selected oncological	

(breast cancer, prostate cancer, colorectal cancer, neuroendocrine neoplasms and multiple endocrine neoplasia syndromes, multiple myeloma and malignant lymphoma, metastatic malignancy of unknown origin, characterization of nodular foci in the liver) and non-oncological (thyroid and parathyroid diseases, localization of infectious and inflammatory lesions in fever / inflammatory syndrome of unknown origin) diseases - Fundamentals of scientific work in nuclear medicine, types of clinical studies in nuclear medicine and principles of clinical studies with a diagnostic agent					
<b>Recommended literature:</b> Balogová S a kol. Základy nukleárnej medicíny, 2016, ISBN 978-80-223-4184-4 Aktuálne odporúčania Európskej asociácie nukleárnej medicíny ( <a href="https://www.eanm.org/publications/guidelines/">https://www.eanm.org/publications/guidelines/</a> ) Aktuálne odporúčania Európskej liekovej agentúry pre realizáciu klinických štúdií s diagnostickým liekom (Doc. Ref. CPMP/EWP/1119/98/Rev 1) European Nuclear Medicine Guide, The 2020 Edition, <a href="https://www.eanm.org/publicpress/european-nuclear-medicine-guide/">https://www.eanm.org/publicpress/european-nuclear-medicine-guide/</a>					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 13					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Soňa Balogová, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KNM/L-S-VL-136-5/19	<b>Course title:</b> Clinical Applications of Diagnostic and Therapeutic Methods of Nuclear Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.RK/L-S-VL-095/22 - Radiology and Nuclear Medicine	
<b>Course requirements:</b> - 100% attendance at the practicals - written test (minimum 60% of correct answers) Final exam: - theoretical exam: 3 questions Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: - Deepening of knowledge about clinical applications of diagnostic and therapeutic methods of nuclear medicine, about their position in diagnostic work-up and therapeutic management of selected oncological and neo-oncological diseases - Clinical applications of direct link between diagnostic examinations of nuclear medicine and subsequent treatment, i.e. of the teragnostic principles of nuclear medicine - Acquirement of the theoretical bases of scientific work in the domain of nuclear medicine and understanding the principles of their practical applications Skills: - Capacity of basic image processing and interpretation of findings of diagnostic methods of nuclear medicine - Basics of radionuclide treatment	
<b>Class syllabus:</b> - Clinical applications of diagnostic and therapeutic methods in selected oncological (breast cancer, prostate cancer, colorectal cancer, neuroendocrine neoplasms and multiple endocrine neoplasia syndromes, multiple myeloma and malignant lymphoma, metastatic malignancy of unknown origin, characterization of nodular foci in the liver)	

and non-oncological (thyroid and parathyroid diseases, localization of infectious and inflammatory lesions in fever / inflammatory syndrome of unknown origin) diseases - Fundamentals of scientific work in nuclear medicine, types of clinical studies in nuclear medicine and principles of clinical studies with a diagnostic agent					
<b>Recommended literature:</b> Balogová S a kol. Základy nukleárnej medicíny, 2016, ISBN 978-80-223-4184-4 Aktuálne odporúčania Európskej asociácie nukleárnej medicíny ( <a href="https://www.eanm.org/publications/guidelines/">https://www.eanm.org/publications/guidelines/</a> ) Aktuálne odporúčania Európskej liekovej agentúry pre realizáciu klinických štúdií s diagnostickým liekom (Doc. Ref. CPMP/EWP/1119/98/Rev 1) European Nuclear Medicine Guide, The 2020 Edition, <a href="https://www.eanm.org/publicpress/european-nuclear-medicine-guide/">https://www.eanm.org/publicpress/european-nuclear-medicine-guide/</a>					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 4					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Soňa Balogová, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLChB/L-S-VL-036/25	<b>Course title:</b> Clinical Biochemistry
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2 and LF.IK5/L-S-VL-029/18 - Internal Medicine 1 or LF.IK5/L-S-VL-029/25 - Internal Medicine 1	
<b>Course requirements:</b> Final exam: The test consists of 40 questions. The minimum number of points for passing the test is more than 80%. Test evaluation: A: 97 - 100 %, B: 93 – 96 %, C: 89 – 92 %, D: 85 – 88 %, E: 81 – 84 %, Fx: 80 % - 0%.	
<b>Learning outcomes:</b> Knowledge: - Basics of pathobiochemistry and clinical biochemistry of analytes in blood and urine - Knowledge of the possibility of using the results of laboratory tests in the diagnosis of diseases of individual organ systems Skills: - Understanding the principles of clinical-biochemical diagnostics - Basics of indication and interpretation of laboratory test results - Utilization of laboratory parameters in differential diagnosis of diseases	
<b>Class syllabus:</b> General clinical biochemistry, phases of laboratory examination, evaluation of results, reference values. Laboratory tests of plasma proteins, hyper- and hypoproteinemia. Clinical enzymology. Clinically important enzymes. Clinical biochemistry of lipid metabolism and hyperlipoproteinemias. The importance of laboratory tests in the diagnosis and monitoring of patients with diabetes mellitus. Importance of laboratory tests in gastroenterology. The importance of laboratory tests in diseases of the hepatobiliary system. Laboratory examinations in nephrology. Urine tests and kidney function tests. Oncomarkers and diagnostics and monitoring of patients with oncological diseases. Laboratory tests in cardiology, cardiomarkers, diagnosis of acute myocardial infarction. Disorders of acid-base balance and their diagnosis. Laboratory tests for diseases of the thyroid gland and adrenal cortex.	
<b>Recommended literature:</b>	

L.Turecký: Klinická biochémia pre medikov. Bratislava: Asklepios 2013, 194 s. T.Zima a spol. Laboratorní diagnostika, Praha, Galén 2013, 1146s.						
<b>Languages necessary to complete the course:</b> slovak						
<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Ladislav Turecký, CSc., RNDr. Milada Laššánová, CSc.						
<b>Last change:</b> 22.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚHE/L-S-VL-130/19	<b>Course title:</b> Clinical Embryology and Reproductive Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Obligatory attendance at the lectures and a final multiple choice test (minimum 60% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Gaining the recent knowledge about new trends in clinical embryology and reproductive medicine. The graduate of the course masters the anatomy and physiology of human reproduction, the causes and possibilities of diagnosis of the most common congenital malformations, masters at the theoretical level the causes and possibilities of diagnosis and treatment of infertility and selected laboratory methods of assisted reproduction. The aim of the course is also to gain a comprehensive view of the issue of human reproduction, and to point out the intersection between theoretical knowledge of embryology and experimental biology and clinical research in gynecology, obstetrics, urology and neonatology. The given subject would in a logical sequence connect knowledge from clinical embryology and assisted reproduction, from the field of female and male infertility, mechanisms of birth defects, their prenatal diagnosis and subsequent specialized neonatological care of the newborn.	
<b>Class syllabus:</b> The contents of the lectures can be divided into several areas: 1) Clinical embryology and laboratory part of assisted reproduction (assisted reproduction methods: spermiology and ejaculate analysis, micromanipulation methods and intracytoplasmic sperm injection into the oocyte, in vitro cultivation of the early embryo and evaluation of its development, cryopreservation in reproductive medicine, preimplantation genetics), 2) Causes and treatment of female and male infertility, 3) A comprehensive view of the issue of congenital malformations (prenatal screening and diagnosis of congenital malformations, current possibilities of fetal surgery, teratology, causes of congenital malformations and prevention options),	



4) Problems of preconception and prenatal preparation and childbirth, family planning, 5) Reproductive immunology and endocrinology.					
<b>Recommended literature:</b> 1. Coward K, Wells D. (Eds). Textbook of Clinical Embryology. Cambridge University Press. 2013. 392 s. ISBN 978-0-521-16640-9. 2. Sadler TW. Langmanova lékařská embryologie. Překlad 10. vyd. Praha: Grada, 2011. 414 s. ISBN 978-80-247-2640-3. 3. Řezáčová J. (Ed). Reprodukční medicína. Současní možnosti v asistované reprodukci. Praha: Mladá fronta. 2018. 710 s. ISBN 978-80-204-4657-2. 4. Maršík L, Bielik P. Základy asistovanej reprodukcie. Učebnica reprodukčnej medicíny. Zvolen: Technická univerzita, 2014. 170 s. ISBN 978-80-228-2705-8.					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 295					
A	B	C	D	E	FX
99,66	0,0	0,34	0,0	0,0	0,0
<b>Lecturers:</b> prof. RNDr. Ivan Varga, PhD., prof. MUDr. Jozef Záhumenský, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLBG/L-S-VL-132-4/19	<b>Course title:</b> Clinical Genetics and Molecular Biology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the lectures Final exam: test (minimum 60% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%.	
<b>Learning outcomes:</b> Knowledge: <ul style="list-style-type: none"> <li>- Introduction and tools of human molecular genetics- Organization of the human genome, Methods of nucleic acid analysis, The polymerase chain reaction (PCR), Advanced techniques in molecular genetics, Real-time PCR, DNA sequence analysis</li> <li>- Basics of clinical genetics - Introduction to clinical genetics, Classification of genetic diseases, Chromosomal syndromes – cytogenetic and molecular diagnosis</li> <li>- Human reproductive genetics - sterility and infertility, Prenatal genetic diagnosis, Molecular methods of invasive and non-invasive prenatal diagnosis, Molecular techniques used for detection of aneuploidies, Analysis of cell-free fetal DNA</li> <li>- Biochemical genetics: inborn errors of metabolism - Diagnostic of inborn errors of metabolism, Mitochondrial diseases, Lysosomal storage disorders, Peroxisomal disorders, Disorders of amino acid, Organic acidurias, Disorders of carbohydrate metabolism, Disorders of metalloproteins, Disorders of bilirubin metabolism, Disorders of cholesterol metabolism</li> <li>- Rare genetic disorders - Endocrinological genetic disorders, Genetic disorders with neurological manifestation, muscular dystrophies, Cystic fibrosis,</li> <li>- Genetic disorders and predispositions - Familial hypercholesterolemia, Diabetes mellitus, Haemophilias</li> <li>- Epigenetics</li> <li>- Novel therapies for rare disorders - Gene therapy</li> <li>- Pharmacogenetics and personalized medicine</li> </ul>	
<b>Class syllabus:</b>	

Definition of the subject clinical genetics and its role in clinical practice. Tasks of clinical genetics departments and their position in the field of the medicine. The use of DNA analysis methods in the diagnostics of hereditary conditions and diseases. The use of cytogenetic diagnostic methods in general genetic practice and in reproductive failures. Most common chromosomal aberrations. General information of the most frequent single gene diseases. Diagnostics of the inborn errors of metabolism. Disorders with multifactorial type of inheritance. Congenital malformations. Prenatal genetic diagnostics - algorithms, methods, prognostic use. Introduction to onco-genetics.

**Recommended literature:**

Daniel Böhmer, Ľuboš Danišovič, Vanda Repiská: Lekárska biológia a genetika 1. Druhé doplnené vydanie. Bratislava: Univerzita Komenského v Bratislave, 2020. - 102 s. ISBN 978-80-223-4922-2

Repiská Vanda, Böhmer Daniel, Braxatorisová Tatiana, Malová Jana: Lekárska biológia a genetika 2. 1. vyd. Bratislava: Univerzita Komenského v Bratislave, 2020. - 135 s. ISBN 978-80-223-4929-1

Gbelcová Helena, Repiská, Vanda, Shawkatová Ivana: Nukleové kyseliny a proteíny: Analytické metódy a postupy. 1. vyd. - Bratislava: Univerzita Komenského, 2017. - 316 s. ISBN 978-80-223-4472-2

Brdička, R a kol.: Genetika pro všeobecné lékaře, Raabe, 2020, 254s., ISBN 978-80-7496-447-3  
Pastoráková A, Petrovič R.: Molekulárne metódy aktuálne používané v klinickej genetike, Univerzita Komenského v Bratislave, Lekárska fakulta, 2016, 50s, ISBN 978-80-223-4231-5 (elektronická učebnica)

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 91

A	B	C	D	E	FX
74,73	25,27	0,0	0,0	0,0	0,0

**Lecturers:** doc. RNDr. Ľuboš Danišovič, PhD., prof. RNDr. Vanda Repiská, PhD., MPH

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLBG/L-S-VL-132-5/19	<b>Course title:</b> Clinical Genetics and Molecular Biology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the lectures Final exam: test (minimum 60% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%.	
<b>Learning outcomes:</b> Knowledge: <ul style="list-style-type: none"> <li>- Introduction and tools of human molecular genetics- Organization of the human genome, Methods of nucleic acid analysis, The polymerase chain reaction (PCR), Advanced techniques in molecular genetics, Real-time PCR, DNA sequence analysis</li> <li>- Basics of clinical genetics - Introduction to clinical genetics, Classification of genetic diseases, Chromosomal syndromes – cytogenetic and molecular diagnosis</li> <li>- Human reproductive genetics - Sterility and infertility, Prenatal genetic diagnosis, Molecular methods of invasive and non-invasive prenatal diagnosis, Molecular techniques used for detection of aneuploidies, Analysis of cell free foetal DNA</li> <li>- Biochemical genetics: inborn errors of metabolism - Diagnostic of inborn errors of metabolism, Mitochondrial diseases, Lysosomal storage disorders, Peroxisomal disorders, Disorders of amino acid, Organic acidurias, Disorders of carbohydrate metabolism, Disorders of metaloproteins, Disorders of bilirubine metabolism, Disorders of cholesterol metabolism</li> <li>- Rare genetic disorders - Endocrinological genetic disorders, Genetic disorders with neurological manifestation, muscular dystrophies, Cystic fibrosis,</li> <li>- Genetic disorders and predispositions - Familial hypercholesterolemia, Diabetes mellitus, Haemophilias</li> <li>- Epigenetics</li> <li>- Novel therapies for rare disorders - Gene therapy</li> <li>- Pharmacogenetics and personalized medicine</li> </ul>	
<b>Class syllabus:</b>	

Definition of the subject clinical genetics and its role in clinical practice. Tasks of clinical genetics departments and their position in the field of the medicine. The use of DNA analysis methods in the diagnostics of hereditary conditions and diseases. The use of cytogenetic diagnostic methods in general genetic practice and in reproductive failures. Most common chromosomal aberrations. General information of the most frequent single gene diseases. Diagnostics of the inborn errors of metabolism. Disorders with multifactorial type of inheritance. Congenital malformations. Prenatal genetic diagnostics - algorithms, methods, prognostic use. Introduction to the oncogenetics.

**Recommended literature:**

Daniel Böhmer, Ľuboš Danišovič, Vanda Repiská: Lekárska biológia a genetika 1. Druhé doplnené vydanie. Bratislava: Univerzita Komenského v Bratislave, 2020. - 102 s. ISBN 978-80-223-4922-2

Repiská Vanda, Böhmer Daniel, Braxatorisová Tatiana, Malová Jana: Lekárska biológia a genetika 2. 1. vyd. Bratislava: Univerzita Komenského v Bratislave, 2020. - 135 s. ISBN 978-80-223-4929-1

Gbelcová Helena, Repiská, Vanda, Shawkatová Ivana: Nukleové kyseliny a proteíny: Analytické metódy a postupy. 1. vyd. - Bratislava: Univerzita Komenského, 2017. - 316 s. ISBN 978-80-223-4472-2

Brdička, R a kol.: Genetika pro všeobecné lékaře, Raabe, 2020, 254s., ISBN 978-80-7496-447-3  
Pastoráková A, Petrovič R.: Molekulárne metódy aktuálne používané v klinickej genetike, Univerzita Komenského v Bratislave, Lekárska fakulta, 2016, 50s, ISBN 978-80-223-4231-5 (elektronická učebnica)

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 24

A	B	C	D	E	FX
62,5	33,33	4,17	0,0	0,0	0,0

**Lecturers:** doc. RNDr. Ľuboš Danišovič, PhD., prof. RNDr. Vanda Repiská, PhD., MPH

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IÚ/L-S-VL-133-4/22	<b>Course title:</b> Clinical Immunology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Form of the course: on-site and on-line (MS Teams)	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IÚ/L-S-VL-092/22 - Immunology	
<b>Course requirements:</b> Final exam: Written test: test evaluation: Number of questions: 40, maximum number of points: 200, number of points required to successfully pass the exam: 140 (70%). Test evaluation: A: 200-186 points, B: 185-171 points, C: 170-161, D: 160-151, E: 150-140. Oral exam: only if the student requires it to improve the grade: the student answers two drawn questions	
<b>Learning outcomes:</b> Knowledge: <ol style="list-style-type: none"> <li>1. Students will master the role of psycho-neuro-endocrine-immune cooperation in the pathogenesis of diseases.</li> <li>2. The have knowledge about the dual role of inflammation~ its importance in immunity and defence mechanisms, but also as a key mechanism that play a great role in the development of diseases, especially in the development of oncological, cardiovascular, infectious, neurodegenerative, and other diseases.</li> <li>3. They expand their knowledge on clinical immunology in the areas of allergies, autoimmunity, tissue and tissue and organ transplants, anti-tumor immunity, and immunodeficiencies, infectious and non-infectious inflammation (SIRS, sepsis, MODS, septic shock), immunoprevention and immunotherapy.</li> <li>4. They gain knowledge about SARS-COV-2 infection, its origin, clinical manifestations, diagnostics, Covid 19 therapy and long-lasting post-covid syndrome.</li> </ol> Skills: <ol style="list-style-type: none"> <li>1. Students recognize the clinical signs of atopy and anaphylaxis. They recognize clinical manifestations of atopy, anaphylactic, anaphylactoid shock and serum sickness, and their therapy. They can use EpiPen.</li> <li>2. They can diagnose acute and chronic allergies.</li> </ol>	

3. They recognize clinical symptoms of congenital and acquired immunodeficient conditions including HIV. They know the diagnosis, and treatment of these diseases.

**Class syllabus:**

Classification of immunopathological reactions, their mechanisms, clinical manifestations, and therapy. Type I hypersensitivity reaction. Atopy and anaphylaxis. Anaphylactic shock, manifestations, diagnosis, therapy. Differential diagnosis from anaphylactoid shock (pseudo-allergies). Hypersensitivity reactions type II. drug reactions, post-transfusion reactions, neonatal hemolytic disease. Hypersensitivity reactions type III. Arthus reaction, serum disease (manifestations, diagnosis, treatment), systemic immune complex diseases. Hypersensitivity reactions type IV. tuberculin reaction, granulomas, allergies. Type V hypersensitivity reactions - the role of autoantibodies (M. Basedow-Graves, Hashimoto's disease, myasthenia gravis), their mechanisms, clinical manifestations, and diagnostics. Physiological and pathological autoimmunity. Immune tolerance and its failure, APS I - IV. Pathogenetic mechanisms of autoimmune processes and their genetic and hormonal predisposition. Immunopathogenesis and immunotherapy of selected autoimmune diseases (type 1 diabetes mellitus, Crohn's disease, colitis ulcerosa, multiple sclerosis, neuromyelitis optica). Immunopathogenesis of some selected autoimmune diseases (myasthenia gravis, psoriasis vulgaris, rheumatoid arthritis, systemic lupus erythematosus). Systemic inflammation, sepsis, MODS, and septic shock. The role of Th1, Th2 immunity, and pro-and anti-inflammatory cytokines and counter-regulatory mechanisms. SIRS, CARS, MARS. New sepsis definition „Sepsis 3“. Diagnosis and differential diagnosis of infectious and non-infectious systemic inflammation - CRP, SAA, procalcitonin, neopterin, TREM-1, HMGB1, and Neu / Ly ratio. Systemic inflammatory index. Transplantation, nomenclature, transplant reactions of HvG and GvH. Exceptions to rejections. Bone marrow, kidney and other organ transplantations. Immunoprevention, immune-prophylaxis. Immuno-stimulation and immunosuppression. Types of vaccines and vaccination calendar in Slovakia. Intravenous immunoglobulins. Monoclonal antibodies and cytokines in therapy. Biological treatment, gene therapy, and peptide therapy. Fusion proteins and small molecules. Congenital disorders of innate immunity. Disorders of adaptive antibody immunity, cellular immunity, and combined immunodeficiencies. General manifestations, occurrence, division. AIDS. Structure of HIV, types of HIV. Interactions of HIV with immune system cells. Clinical stages of AIDS. AIDS prevention and immunological diagnosis. The current approach to therapy. SARS COV-2 infection, the role of the immunity and inflammation in clinical manifestation of disease. The role of vasculitis and thrombosis. Long-term post-covid syndrome, vaccination, its side effects, and therapy. Tumors, inflammation, immunity, and HLA-G as an immune checkpoint molecule. Etiology of tumor process; translocations in the malignant process. Immunoediting. The cause of malignant cell leakage from effector functions of the immune system. The role of inflammation in carcinogenesis. Metastatic process. Immunodiagnostics and immunotherapy of tumor disease. Immunity during pregnancy. Immunological paradox and foetal tolerance. Psycho-neuroendocrine-immune system - a holistic view on the functioning of immunity. The role of inflammation in the development of neurodegenerative diseases. Alzheimer disease. The role of the mother's immune system in foetal tolerance. The role of HLA-G. Development of foetal and new-born immunity.

**Recommended literature:**

1. PDF a video-prezentácie prednášajúcich
2. Buc, M.: Základná a klinická imunológia. Imunológia. Bratislava, VEDA 2022, 792 s.
3. Buc, M.: Autoimunita a autoimunitné choroby. VEDA 2016, 667 s.
4. Buc, M. Základná a klinická imunológia pre študentov zubného lekárstva. Bratislava, Univerzita Komenského 2025

**Languages necessary to complete the course:**

Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b>					
Total number of evaluated students: 27					
A	B	C	D	E	FX
7,41	22,22	22,22	29,63	18,52	0,0
<b>Lecturers:</b> doc. MUDr. Mária Bucová, CSc., prof. MUDr. Milan Buc, DrSc., doc. RNDr. Vladimíra Ďurmanová, PhD., doc. Mgr. Ivana Shawkatová, PhD., MUDr. Juraj Javor, PhD.					
<b>Last change:</b> 15.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IÚ/L-S-VL-133-5/22	<b>Course title:</b> Clinical Immunology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Form of the course: on-site and on-line (MS Teams)	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Final exam: Written test: test evaluation: Number of questions: 40, maximum number of points: 200, number of points required to successfully pass the exam: 140 (70%). Test evaluation: A: 200-186 points, B: 185-171 points, C: 170-161, D: 160-151, E: 150-140. Oral exam: only if the student requires it to improve the grade: the student answers two drawn questions	
<b>Learning outcomes:</b> Knowledge: <ol style="list-style-type: none"> <li>1. Students will master the role of psycho-neuro-endocrine-immune cooperation in the pathogenesis of diseases.</li> <li>2. The have knowledge about the dual role of inflammation~ its importance in immunity and defence mechanisms, but also as a key mechanism that play a great role in the development of diseases, especially in the development of oncological, cardiovascular, infectious, neurodegenerative, and other diseases.</li> <li>3. They expand their knowledge on clinical immunology in the areas of allergies, autoimmunity, tissue and tissue and organ transplants, anti-tumor immunity, and immunodeficiencies, infectious and non-infectious inflammation (SIRS, sepsis, MODS, septic shock), immunoprevention and immunotherapy.</li> <li>4. They gain knowledge about SARS-COV-2 infection, its origin, clinical manifestations, diagnostics, Covid 19 therapy and long-lasting post-covid syndrome.</li> </ol> Skills: <ol style="list-style-type: none"> <li>1. Students recognize the clinical signs of atopy and anaphylaxis. They recognize clinical manifestations of atopy, anaphylactic, anaphylactoid shock and serum sickness, and their therapy. They can use EpiPen.</li> <li>2. They can diagnose acute and chronic allergies.</li> </ol>	

3. They recognize clinical symptoms of congenital and acquired immunodeficient conditions including HIV. They know the diagnosis, and treatment of these diseases.

**Class syllabus:**

Type I hypersensitivity reaction. Atopy and anaphylaxis. Anaphylactic shock, manifestations, diagnosis, therapy. Differential diagnosis from anaphylactoid shock (pseudo-allergies). Hypersensitivity reactions type II.: drug reactions, post-transfusion reactions, neonatal hemolytic disease. Hypersensitivity reactions type III.: Local Arthus reaction, systemic: serum disease (manifestations, diagnosis, treatment), systemic immune complex diseases. Hypersensitivity reactions type IV.: tuberculin reaction, granulomas, allergies. Type V hypersensitivity reactions: the role of autoantibodies (M. Basedow-Graves, Hashimoto's disease, myasthenia gravis), their pathogenetic mechanisms, clinical manifestations, and diagnostics. Physiological and pathological autoimmunity. Immune tolerance and its failure. Immunopathogenesis and immunotherapy of selected autoimmune diseases: type 1 diabetes mellitus, Crohn's disease, colitis ulcerosa, multiple sclerosis, neuromyelitis optica, myasthenia gravis, psoriasis vulgaris, rheumatoid arthritis, systemic lupus erythematosus. Systemic inflammation, sepsis, MODS, and septic shock. The role of Th1, Th2 immunity, and pro-and anti-inflammatory cytokines and counter-regulatory mechanisms. SIRS, CARS, MARS, PICS. New sepsis definition „Sepsis 3“. SOFA score, quick SOFA, APACHE II. Diagnosis and differential diagnosis of infectious and non-infectious systemic inflammation - CRP, SAA, procalcitonin, neopterin, TREM-1, HMGB1, and Neu/Ly ratio. Systemic inflammatory index. Transplantation, nomenclature, transplant reactions of HvG and GvH. Exceptions to rejections. Bone marrow, kidney and other organ transplantations. Immunoprevention, immune-prophylaxis. Immuno-stimulation and immunosuppression. Types of vaccines and vaccination calendar in Slovakia. Intravenous immunoglobulins. Monoclonal antibodies and cytokines in therapy. Biological treatment, gene therapy, and peptide therapy. Fusion proteins and small molecules. Congenital disorders of innate immunity. Disorders of adaptive antibody immunity, cellular immunity, and combined immunodeficiencies. General manifestations, occurrence, division. AIDS. Structure of HIV, types of HIV. Interactions of HIV with immune system cells. Clinical stages of AIDS. AIDS prevention and immunological diagnosis. The current approach to therapy. SARS COV-2 infection, the role of the immunity and inflammation in clinical manifestation of disease. The role of vasculitis and thrombosis. Long-term post-covid syndrome, vaccination, its side effects, and therapy. Tumors, inflammation, immunity, and HLA-G as an immune checkpoint molecule. Etiology of tumor process; translocations in the malignant process. Immunoediting. The cause of malignant cell leakage from effector functions of the immune system. The role of inflammation in carcinogenesis. Metastatic process. Immunodiagnostics and immunotherapy of tumor disease. Psycho-neuroendocrine-immune system- a holistic view on the functioning of immunity. The role of inflammation in the development of neurodegenerative diseases. Alzheimer disease. Immunity during pregnancy. Immunological paradox and foetal tolerance. The role of the mother's immune system in foetal tolerance. The role of HLA-G. Development of foetal and new-born immunity.

**Recommended literature:**

1. Buc, M.: Základná a klinická imunológia. Imunológia. Bratislava, VEDA 2012, 831 s.
2. Buc, M.: Autoimunita a autoimunitné choroby. VEDA 2005, 430 s.
3. Buc, M. Základná a klinická imunológia pre študentov zubného lekárstva. Bratislava, ISBN 978-80-223-2312-3. Univerzita Komenského 2010, 342 s.
4. Video-prezentácie prednášajúcich.

**Languages necessary to complete the course:**

Slovak

<b>Notes:</b>					
<b>Past grade distribution</b>					
Total number of evaluated students: 2					
A	B	C	D	E	FX
0,0	50,0	0,0	0,0	50,0	0,0
<b>Lecturers:</b> doc. MUDr. Mária Bucová, CSc., prof. MUDr. Milan Buc, DrSc., doc. RNDr. Vladimíra Ďurmanová, PhD., doc. Mgr. Ivana Shawkatová, PhD., MUDr. Juraj Javor, PhD.					
<b>Last change:</b> 15.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.MÚ/L-S-VL-134-4/19	<b>Course title:</b> Clinical Microbiology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.MÚ/L-S-VL-046/18 - Microbiology 2 and LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2	
<b>Course requirements:</b> Final exam: - defending the seminar work (a minimal extent of 5 pages) - written test (minimum 75% of correct answers) - theoretical exam: 2 questions Test evaluation: A: 96 - 100 %, B: 91 – 95 %, C: 86 – 90 %, D: 81 – 85 %, E: 75 – 80 %, Fx: 74-0 % The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: Explanation of pathogenesis of microbial diseases according to particular organs and organ systems. Overview of microbiological diagnostic options for particular organs and organ systems infectious diseases. Skills: Interpretation of microbiologic diagnostics results and their implementation in the therapy	
<b>Class syllabus:</b> Principles of rational antimicrobial therapy in outpatients and in hospitalised patients. Microbiological diagnostics and antimicrobial therapy of pneumonia, sepsis, endocarditis, meningitis and other CNS infections, urogenital and intraabdominal infections. Infectious complications in immunocompromised patient. Current options of microbiological diagnostic and antimicrobial therapy of mycoses. Principles of microbiological diagnostic results interpretation. Multiresistance of bacteria, risks and possible solutions.	
<b>Recommended literature:</b> Liptáková, A. et al.: Lekárska mikrobiológia. - 2. vyd. - Bratislava : Herba, 2023. - 771 s. Články z časopisu ESCMID: Clinical Microbiology and Infection	

Najnovšie štandardné preventívne, diagnostické a terapeutické postupy týkajúce sa osnovy predmetu.					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 7					
A	B	C	D	E	FX
85,71	14,29	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Adriana Liptáková, PhD., MPH, doc. RNDr. Lívia Slobodníková, CSc., MUDr. Ján Koreň, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.MÚ/L-S-VL-134-5/19	<b>Course title:</b> Clinical Microbiology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Final exam: - defending the seminar work (a minimal extent of 5 pages) - written test (minimum 75% of correct answers) - theoretical exam: 2 questions Test evaluation: A: 96 - 100 %, B: 91 – 95 %, C: 86 – 90 %, D: 81 – 85 %, E: 75 – 80 %, Fx: 74-0 % The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: Explanation of pathogenesis of microbial diseases according to particular organs and organ systems. Overview of microbiological diagnostic options for particular organs and organ systems infectious diseases. Skills: Interpretation of microbiologic diagnostics results and their implementation in the therapy	
<b>Class syllabus:</b> Principles of rational antimicrobial therapy in outpatients and in hospitalised patients. Microbiological diagnostics and antimicrobial therapy of pneumonia, sepsis, endocarditis, meningitis and other CNS infections, urogenital and intraabdominal infections. Infectious complications in immunocompromised patient. Current options of microbiological diagnostic and antimicrobial therapy of mycoses. Principles of microbiological diagnostic results interpretation. Multiresistance of bacteria, risks and possible solutions.	
<b>Recommended literature:</b> Liptáková, A. et al.: Lekárska mikrobiológia. - 2. vyd. - Bratislava : Herba, 2023. - 771 s. Články z časopisu ESCMID: Clinical Microbiology and Infection	

Najnovšie štandardné preventívne, diagnostické a terapeutické postupy týkajúce sa osnovy predmetu.					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Adriana Liptáková, PhD., MPH, doc. RNDr. Lívia Slobodníková, CSc., MUDr. Ján Koreň, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.NKIM/L-S-VL-178/23	<b>Course title:</b> Clinical Neonatology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK5/L-S-VL-031/19 - Internal Medicine 3	
<b>Course requirements:</b> -100% attendance at the practicals -1 written test – minimal 60% of correct answers Test evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: less then 60 %	
<b>Learning outcomes:</b> Knowledge: to obtain current theoretical knowledge in neonatal care Skills: to obtain communication and practical skills in neonatal care (securing of airways, resuscitation, i. v. access, monitoring of vital signs)	
<b>Class syllabus:</b> 1. Classification of newborns, physiological postnatal adaptation 2. Resuscitation of a newborn 3. Examination of a newborn 4. Neonatal screening 5. Non-invasive and invasive monitoring of a newborn: pulse oximetry, NIRS, aEEG, blood pressure 6. Principles of non-invasive and invasive respiratory support of the newborn 7. Postpartum adaptation disorders: early asphyxia syndrome, syndrome of persistent pulmonary hypertension, transient tachypnea of the newborn, SIDS 8. Care and complications of a premature newborn – respiratory system 9. Care and complications of a premature newborn – central nervous system, alimentary system, infections, others 10. Acute conditions in neonatology 11. Communication and practical skills training 12. Application of theoretical knowledge in practice – analysis of various case reports	
<b>Recommended literature:</b>	



<p>Brucknerová Ingrid a kol.: Neonatológia 1 pre poslucháčov Lekárskej fakulty.          –1. vyd. – Bratislava: Univerzita Komenského, 2017. – 174 s.          ISBN 978-80-223-4283-4</p> <p>Brucknerová, Ingrid: Neonatology: simple &amp; easy. – Part 1. – 2nd ed. - Bratislava: Univerzita Komenského, 2019. – 158 s. ISBN 978-80-223-4760-0</p> <p>Brucknerová, Ingrid: Neonatology: simple &amp; easy. – Part 2. – 2nd ed. - Bratislava: Univerzita Komenského, 2021. – 116 s. ISBN 978-80-223-5047-1</p> <p>Brucknerová, Ingrid: Neonatology: simple &amp; easy. – Part 3. – 2nd ed. - Bratislava: Univerzita Komenského, 2019. – 110 s. ISBN 978-80-223-4761-7</p> <p>Brucknerová, Ingrid: Neonatology: simple &amp; easy. – Part 4. – 1st ed. - Bratislava: Univerzita Komenského, 2018. – 190 s. ISBN 978-80-223-4429-6</p>					
<p><b>Languages necessary to complete the course:</b>          Slovak</p>					
<p><b>Notes:</b></p>					
<p><b>Past grade distribution</b>          Total number of evaluated students: 21</p>					
A	B	C	D	E	FX
80,95	14,29	4,76	0,0	0,0	0,0
<p><b>Lecturers:</b> prof. MUDr. Ingrid Brucknerová, PhD., MUDr. Dušan Doboš</p>					
<p><b>Last change:</b> 15.05.2025</p>					
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚPA/L-S-VL-135-4/19	<b>Course title:</b> Clinical Pathology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2	
<b>Course requirements:</b> - 100% attendance at the lectures - oral examination – 1 question	
<b>Learning outcomes:</b> Knowledge and skills: Correlation of morphological changes with clinical findings in diseases of the hemopoietic system, female genital system and neuromuscular diseases. Targeted diagnostics of hemopoietic and testicular tumors, colorectal carcinoma, with the aim of personalized therapeutic outcomes. Therapeutic possibilities of hyperbaric environment. Pathology of gestational trophoblastic disease, diabetes mellitus, COVID-19 and their clinical correlation. Application of frozen section histology.	
<b>Class syllabus:</b> Introduction to clinical pathology. Application of immunohistochemistry in tumor diagnostics. Pathology and clinical manifestation of COVID-19. Gestational trophoblastic disease – multidisciplinary cooperation in the diagnostics. Hyperbaric medicine. Translational research – its significance in search for new therapeutic targets. Classification and significance of complex diagnostics of lymphoproliferative diseases. Gynecologic cytology and its significance in prevention of uterine cervix carcinoma. Pathology of diabetes mellitus. Genetics of colorectal carcinoma. Practical use of frozen section histology in clinical praxis.	
<b>Recommended literature:</b> Prednášky	
<b>Languages necessary to complete the course:</b> slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>					
Total number of evaluated students: 130					
A	B	C	D	E	FX
83,08	10,77	3,85	2,31	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Ľudovít Danihel, CSc., prof. MUDr. Pavel Babál, CSc., doc. MUDr. Zuzana Čierna, PhD., doc. MUDr. Pavol Janega, PhD., MUDr. Andrea Janegová, PhD., MUDr. Katarína Letkovská, PhD., MUDr. Kristína Mikuš Kuracinová, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚPA/L-S-VL-135-5/19	<b>Course title:</b> Clinical Pathology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the lectures - oral examination – 1 question	
<b>Learning outcomes:</b> Knowledge and skills: Correlation of morphological changes with clinical findings in diseases of the hemopoietic system, female genital system and neuromuscular diseases. Targeted diagnostics of hemopoietic and testicular tumors, colorectal carcinoma, with the aim of personalized therapeutic outcomes. Therapeutic possibilities of hyperbaric environment. Pathology of gestational trophoblastic disease, diabetes mellitus, COVID-19 and their clinical correlation. Application of frozen section histology.	
<b>Class syllabus:</b> Introduction to clinical pathology. Application of immunohistochemistry in tumor diagnostics. Pathology and clinical manifestation of COVID-19. Gestational trophoblastic disease – multidisciplinary cooperation in the diagnostics. Hyperbaric medicine. Translational research – its significance in search for new therapeutic targets. Classification and significance of complex diagnostics of lymphoproliferative diseases. Gynecologic cytology and its significance in prevention of uterine cervix carcinoma. Pathology of diabetes mellitus. Genetics of colorectal carcinoma. Practical use of frozen section histology in clinical praxis.	
<b>Recommended literature:</b> Prednášky	
<b>Languages necessary to complete the course:</b> slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>					
Total number of evaluated students: 6					
A	B	C	D	E	FX
66,67	0,0	33,33	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Pavel Babál, CSc., prof. MUDr. Ľudovít Danihel, CSc., doc. MUDr. Zuzana Čierna, PhD., doc. MUDr. Pavol Janega, PhD., MUDr. Andrea Janegová, PhD., MUDr. Katarína Letkovská, PhD., MUDr. Kristína Mikuš Kuracinová, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚFKF/L-S-VL-131-4/20	<b>Course title:</b> Clinical Pharmacology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚFKF/L-S-VL-012/19 - Pharmacology 2	
<b>Course requirements:</b> - 100% attendance on the lectures Final exam: - written part – work up of pharmacotherapeutic plan - theoretical part – 2 questions: 1st question from general clinical pharmacology; 2nd question – discussion and justification of the proposed pharmacotherapeutic plan The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: - acquisition of knowledge from medical pharmacology and therapeutics - acquisition of knowledge necessary for pharmacological decision-making in selected diseases Skills: - application of knowledge in an appropriate drug selection - assessment of the risk-benefit ratio of drugs in specific situations of selected diseases in an individual patient	
<b>Class syllabus:</b> Strategy and methods in pharmacotherapy. Drug evaluation. GLP, GCP. Medication adherence. Drug risk and its prevention. Pharmacovigilance and monitoring of adverse drug reactions. Therapeutic drug monitoring. Characteristics of pharmacotherapy during pregnancy and lactation. Characteristics of pharmacotherapy in children. Characteristics of pharmacotherapy in elderly. Clinical analysis of pharmacotherapy in selected frequently occurring diseases. Creating different pharmacotherapeutic plans and drug selection.	
<b>Recommended literature:</b> Wawruch, M., Laššánová, M., Tisoňová, J. Kapitoly z klinickej farmakológie. Bratislava : Univerzita Komenského, 2012. 176 s.	

Mirossay L., Mojžiš J. a kol.: Základná farmakológia a farmakoterapia I + II. 2. prepracované vydanie. Košice: EQUILIBRIA, 2021, 1162 s.  
 Švihovec J. a kol.: Farmakologie. 1. vydanie. Praha: Grada, 2018. 1008 s.  
 Kristová, V., Wawruch, M., Tisoňová, J. a kol. Kardiovaskulárne liečivá. 2. doplnené vydanie. Bratislava: Univerzita Komenského, 2019. 302 s.

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 56

A	B	C	D	E	FX
91,07	8,93	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Martin Wawruch, PhD., doc. MUDr. Jana Tisoňová, PhD., doc. MUDr. Monika Laššánová, PhD., MUDr. Róbert Vojtko, PhD., MUDr. Miriam Petrová, PhD.

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚFKF/L-S-VL-131-5/20	<b>Course title:</b> Clinical Pharmacology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚFKF/L-S-VL-012/19 - Pharmacology 2	
<b>Course requirements:</b> - 100% attendance on the lectures Final exam: - written part – work up of pharmacotherapeutic plan - theoretical part – 2 questions: 1st question from general clinical pharmacology; 2nd question – discussion and justification of the proposed pharmacotherapeutic plan The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: - acquisition of knowledge from medical pharmacology and therapeutics - acquisition of knowledge necessary for pharmacological decision-making in selected diseases Skills: - application of knowledge in an appropriate drug selection - assessment of the risk-benefit ratio of drugs in specific situations of selected diseases in an individual patient	
<b>Class syllabus:</b> Strategy and methods in pharmacotherapy. Drug evaluation. GLP, GCP. Medication adherence. Drug risk and its prevention. Pharmacovigilance and monitoring of adverse drug reactions. Therapeutic drug monitoring. Characteristics of pharmacotherapy during pregnancy and lactation. Characteristics of pharmacotherapy in children. Characteristics of pharmacotherapy in elderly. Clinical analysis of pharmacotherapy in selected frequently occurring diseases. Creating different pharmacotherapeutic plans and drug selection.	
<b>Recommended literature:</b> Wawruch, M., Laššánová, M., Tisoňová, J. Kapitoly z klinickej farmakológie. Bratislava : Univerzita Komenského, 2012. 176 s.	



Mirossay L., Mojžiš J. a kol.: Základná farmakológia a farmakoterapia I + II. 2. prepracované vydanie. Košice: EQUILIBRIA, 2021, 1162 s.  
 Švihovec J. a kol.: Farmakologie. 1. vydanie. Praha: Grada, 2018. 1008 s.  
 Kristová, V., Wawruch, M., Tisoňová, J. a kol. Kardiovaskulárne liečivá. 2. doplnené vydanie. Bratislava: Univerzita Komenského, 2019. 302 s.

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 16

A	B	C	D	E	FX
87,5	6,25	6,25	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Martin Wawruch, PhD., doc. MUDr. Jana Tisoňová, PhD., doc. MUDr. Monika Laššánová, PhD., MUDr. Róbert Vojtko, PhD., MUDr. Miriam Petrová, PhD.

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026					
<b>University:</b> Comenius University Bratislava					
<b>Faculty:</b> Faculty of Medicine					
<b>Course ID:</b> LF.KAIM2/L-S-VL-129/19		<b>Course title:</b> Clinical anaesthesiology and intensive medicine			
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning					
<b>Type, volume, methods and workload of the student - additional information</b> COS					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 9.					
<b>Educational level:</b> I.II.					
<b>Prerequisites:</b> LF.KAIM1/L-S-VL-005/19 - Anaesthesiology and Intensive Medicine 2					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 94					
A	B	C	D	E	FX
48,94	38,3	10,64	2,13	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Roman Záhorec, CSc., MUDr. Juraj Koutun, CSc.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-137/19	<b>Course title:</b> Communication Skills
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the lectures - oral exam – 2 questions	
<b>Learning outcomes:</b> Knowledge: The student understands the importance of adequate communication in medical practice. The student knows the generally applicable principles of verbal and nonverbal communication. The student knows the specifics of communication between the doctor, the patient and the support person in various specific situations. Skills: The student is able to communicate with the patient and the support person in common and specific situations.	
<b>Class syllabus:</b> The importance of communication skills. Social communication, types and kinds of social communication, communication process, communication barriers. Communication as a medical competence. Verbal communication. Non-verbal communication. Conducting a conversation between doctor and patient. Empathy and assertiveness in doctor-patient communication. Misinformation and its impact on doctor-patient communication. Communicating bad news to patients and relatives. Physician-patient communication with patients with physical, hearing, visual impairments. Physician communication with the geriatric patient. Physician communication with a dying patient. Communication from the patient's perspective - the experience of patients with different illnesses with communication from the doctor and health professionals.	
<b>Recommended literature:</b> MOROVICSOVÁ, E. a kol. Komunikácia v medicíne. Bratislava: Univerzita Komenského, 2014. KOVÁČ, E. Lektorské a komunikačné zručnosti. Bratislava: Akadémia humanitných a medzikultúrnych štúdií E. Steinovej, 2021. BEDNAŘÍK, A., ANDRÁŠIOVÁ, M. Komunikace s nemocným. Praha: Grada, 2020	

SKOUMALOVÁ I. DANKULINCOVÁ Z. Kompetencie pre klinickú prax v oblasti komunikácie s pacientom. Košice: Šafárik Press, 2023					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b> The course has a limited capacity of 15 students, in case of higher interest the first 15 enrolled students will be selected.					
<b>Past grade distribution</b> Total number of evaluated students: 70					
A	B	C	D	E	FX
77,14	20,0	2,86	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Vojtech Ozorovský, CSc., doc. MUDr. Michaela Kostičová, PhD., MPH, PhDr. Eva Dobiášová, PhD., MUDr. Jana Trizuljaková, PhD., PhDr. Ivana Vojteková, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚPF/L-S-VL-138/22	<b>Course title:</b> Critical Appraisal and Academic Writing Skills
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Form of the course: online learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - Full completion of lectures - Positive evaluation of the presentation on the topic of the diploma thesis (introduction, objectives, methodology, literature) in the form of a presentation - online credit test. Test grades: A: 91-100%, B: 81-90%, C: 73-80%, D: 66-72%, E: 60-65%, Fx: 59% and below.	
<b>Learning outcomes:</b> <b>Knowledge:</b> Upon successful completion of the compulsory optional course, the student: - is able to distinguish the type of scientific articles and scientific journals, with a focus on the evaluating indicators for the journal quality, - is familiar with bibliometry and citation databases, - learns the basics of critical academic thinking and professional communication, including communication with the diploma thesis supervisor, - learns the principles of presentation (oral/poster), professional speaking and discussion at scientific events/thesis defence, - learns the possibilities and style of active participation in scientific conferences, congresses, -can identify major problem areas: vocabulary, structure, logical factors-content in papers/ thesis. <b>Skills:</b> - the student can better assess the quality of scientific papers/ diploma theses/presentations - can assess main formal mistakes in oral academic communication and the most common errors in academic writing (papers/ thesis), - can better assess weakness in arguments concerning scientific data, - is able to logically formulate a hypothesis/aims in a thesis/article in which they are an author, understands how to clearly present results, how to write a discussion in comparison with the results	

of other authors, how to formulate a well-balanced conclusion, the student is familiar with the principles of proper citation of relevant literature, - can prepare a high-quality oral presentation regarding own scientific results/diploma thesis.					
<b>Class syllabus:</b> Lectures: Core academic skills of medical students. Academic communication with researchers' supervisors. Academic English, analysis of selected mistakes across papers and diploma thesis. Oral and poster presentation. How to prepare an Abstract (paper/for conference). Medical databases. Original scientific publication: How to write Introduction; Material (Patients) and Methods, Results; Discussion; Conclusion, References. Conclusions; Review article/systematic review.					
<b>Recommended literature:</b> - Materiály z prednášok a seminárov, - minimálne 5 vybraných článkov s impakt faktorom podľa zvolenej témy diplomovej práce.					
<b>Languages necessary to complete the course:</b> Slovak, English					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 5					
A	B	C	D	E	FX
60,0	20,0	20,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Beáta Mladosievičová, CSc., doc. MUDr. Ing. Peter Celec, DrSc.					
<b>Last change:</b> 20.06.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## STATE EXAM DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF/L-VL-O-5/15	<b>Course title:</b> Defence of the Diploma Thesis
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 11., 12..	
<b>Educational level:</b> I.II.	
<b>State exam syllabus:</b>	
<b>Last change:</b>	
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH	

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KSMCh/L-S-VL-070/25	<b>Course title:</b> Dental Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 14s / 3s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 6.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - attendance at the lectures - 100% attendance at the seminar - 1 written test (minimum 60% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Normal orofacial region and by pathological conditions. Aetiology, prevention, diagnostics and therapy of the dentition and oral soft tissues. Emphasis layed upon causing factors, early diagnostics, risk of complications a relations to the general health. Knowledge: basics of conservative dentistry, periodontology and oral pathology, dental prosthetics, orthodontics, dentoalveolar and maxillofacial surgery. Skills: not required	
<b>Class syllabus:</b> Disorders of hard dental tissues, dental pulp, apical periodontium, oral focal infection. Manifestation of general disorders in oral cavity. Orthodontic anomalies, orofacial clefts. Prosthetic replacement of missing teeth. Infections around the jaws, fractures of the facial skeleton, oncology of head and neck. Treatment of handicaped patients. Long term follow-up.	
<b>Recommended literature:</b> -LÉPORI, R.L.: Zubné lekárstvo. KK dent 2018, 190 s. ISBN 9788394924317 -MAZÁNEK, J.: Stomatologie. Galén, Praha 2017, 136 s.	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	



<b>Past grade distribution</b>						
Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Peter Stanko, PhD., doc. MUDr. Peter Plachý, CSc., doc. MUDr. Stanislava Veselá, CSc., MUDr. Dušan Hollý, PhD., MPH						
<b>Last change:</b> 05.03.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.DK/L-S-VL-008/25	<b>Course title:</b> Dermatovenerology 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 15s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚFKF/L-S-VL-012/19 - Pharmacology 2	
<b>Course requirements:</b> 100% participation in practicals Exam: test – minimum of 60% success rate Evaluation of the test: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less Writing of the medical record of the patient The final evaluation is calculated as the median of all received results.	
<b>Learning outcomes:</b> Theoretical knowledge: Nomenclature in dermatovenerology. Information about bacterial, viral and sexually transmitted diseases, skin disorders Practical skills: examination methods in dermatovenerology: alergological and mycological examination, Wood lamp, collecting of the tissue for histological examination, microscopic examination of pathological materials, dark field microscopy	
<b>Class syllabus:</b> Anatomy, physiology, histopathology of the skin. Skin lesions. Dermatoses from external physical and chemical causes. Erythematous squamous dermatosis - pityriasis rosea, psoriasis, parapsoriasis erythroderma. Viral infections. Acne vulgaris, rosacea, dermatitis rosaceiformis. Hidradenitis suppurativa. Bacterial infections of skin and mucous membranes. Tuberculosis – skin forms. Pyoderma of the hair follicle and sweat glands, erythrasma. Epizoonosis. Benign tumors of the skin and mucous membranes. Precancerous lesions and malignancies of the skin and mucous membranes.	
<b>Recommended literature:</b> Buchvald, J.: Praktikum z dermatovenerológie pre štáždžujúcich. Bratislava, UK, 1996. 72 s. Skriptá. Šimaljaková, M., Buchvald, D.: Dermatovenerológia, UK Bratislava 2019, Švecová, D., Danilla, T.: Textbook of Dermatology. UK Bratislava, 2017, 384 s. Švecová, D.: Handbook of Dermatovenerology for Practical Lessons, UK Bratislava 2018, 274s	
<b>Languages necessary to complete the course:</b> slovak	

<b>Notes:</b>						
<b>Past grade distribution</b>						
Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Mária Šimaljaková, PhD., prof. MUDr. Danka Švecová, PhD., doc. MUDr. Dušan Buchvald, CSc.						
<b>Last change:</b> 20.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.DK/L-S-VL-009/19	<b>Course title:</b> Dermatovenerology 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 20s / 20s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.DK/L-S-VL-008/19 - Dermatovenerology 1 or LF.DK/L-S-VL-008/25 - Dermatovenerology 1	
<b>Course requirements:</b> 100% participation in practicals Test - minimum of 60% success rate Evaluation of the test: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less Final Exam: practical part – writing the medical record of one patient, including differential diagnosis, 1 question from practicals - Theoretical part - 3 questions from dermatovenerology	
<b>Learning outcomes:</b> Theoretical knowledge: Etiopathogenesis, clinical picture, diagnostics, differential diagnosis and therapy of mucocutaneous diseases. Principles of topical therapy in dermatology, preventive measures. Practical skills: differential diagnostic procedures. Proposals for examination and therapy of cutaneous diseases, principles of topical therapy in dermatology. Trichogram, dermoscopy, cryotherapy, lasers, phototherapy, PDT, compressive therapy	
<b>Class syllabus:</b> Medicamentous exanthema. Urticaria, angioedema. Eczema contactum allergicum. Toxic dermatitis. Dermatitis seborrhoica. Dermatitis atopica. Eczema microbiale. Erythemosquamous dermatosis. Papular dermatosis - lichen ruber, prurigo. Bullous dermatosis - pemphigus, pemphigoid, dermatitis herpetiformis. Disorders of blood and lymphatic vessels. Sexually transmitted infections. Mycotic infections of the skin and mucous membranes. Neutrophils and eosinophils dermatosis. Disorders of the hair and nails. Disorders of the oral cavity and lips. Skin manifestations of metabolic disorders of aminoacids, mucopolysaccharides, vitamins and lipids. Paraneoplastic dermatosis. Skin manifestation of internal diseases. Specific skin characteristics of infants and children. Genodermatosis: disorders of keratinization, hereditary epidermolysis. Porphyria. Mastocytosis. Disorders of connective tissue. Nevi.	
<b>Recommended literature:</b>	

Buchvald, J.: Praktikum z dermatovenerológie pre stážujúcich.Bratislava,UK,1996.72 s. Skriptá. Šimaljaková, M., Buchvald,D.: Dermatovenerológia, UK Bratislava, 2019, 543 s.. Švecová,D., Danilla.T.: Textbook of Dermatology. UK Bratislava, 2017, 384 s. Švecová, D.: Handbook of Dermatovenerology for Practical Lessons , UK Bratislava 2018, 274 s.					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 1732					
A	B	C	D	E	FX
35,74	28,52	17,44	10,39	6,81	1,1
<b>Lecturers:</b> prof. MUDr. Mária Šimaljaková, PhD., prof. MUDr. Danka Švecová, PhD., doc. MUDr. Dušan Buchvald, CSc.					
<b>Last change:</b> 04.06.2024					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF/L-S-VL-071/25	<b>Course title:</b> Diploma Work 1
<b>Educational activities:</b> <b>Type of activities:</b> independent work <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 40s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> communication with the final thesis supervisor presentation of agreed outcomes and their evaluation by the thesis supervisor	
<b>Learning outcomes:</b> - to elaborate the chosen topic at the level of a scientific study - appropriate choice of scientific literature - to apply an appropriate methodology and research methods	
<b>Class syllabus:</b> - topic selection and communication with the thesis supervisor - define the objectives of the final thesis - selection of bibliography	
<b>Recommended literature:</b> Recommended literature: Internal Regulation No. 7/2018 Guideline of the Rector of Comenius University in Bratislava. The full text of Internal Regulation No. 12/2013 of the Guideline of the Rector of Comenius University in Bratislava on the Basic Requirements of Final Theses, Rigorous Theses, and Habilitation Theses, Originality Check, Storing and Accessibility at Comenius University in Bratislava as amended by Appendix No. 1 and Appendix No. 2 Internal Regulation No. 10/2020 Study Regulations Comenius University in Bratislava, Faculty of Medicine Bibliography according to the diploma thesis	
<b>Languages necessary to complete the course:</b> slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>						
Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>						
<b>Last change:</b> 17.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF/L-S-VL-072/25	<b>Course title:</b> Diploma Work 2
<b>Educational activities:</b> <b>Type of activities:</b> independent work <b>Number of hours:</b> <b>per week: per level/semester:</b> 50s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF/L-S-VL-071/25 - Diploma Work 1	
<b>Course requirements:</b> communication with the final thesis supervisor presentation of agreed outcomes and their evaluation by the thesis supervisor	
<b>Learning outcomes:</b> - to elaborate the chosen topic at the level of a scientific study - appropriate choice of scientific literature - to apply an appropriate methodology and research methods	
<b>Class syllabus:</b> - preparation and study of selected literature (research, textbooks, monographs, offprints of works in particular scientific field) - preparation of diploma thesis synopsis - to start working on the core of the diploma thesis, which is the main part of the thesis	
<b>Recommended literature:</b> Recommended literature: Internal Regulation No. 7/2018 Guideline of the Rector of Comenius University in Bratislava. The full text of Internal Regulation No. 12/2013 of the Guideline of the Rector of Comenius University in Bratislava on the Basic Requirements of Final Theses, Rigorous Theses, and Habilitation Theses, Originality Check, Storing and Accessibility at Comenius University in Bratislava as amended by Appendix No. 1 and Appendix No. 2 Internal Regulation No. 10/2020 Study Regulations Comenius University in Bratislava, Faculty of Medicine Bibliography according to the diploma thesis	
<b>Languages necessary to complete the course:</b> slovak	
<b>Notes:</b>	



<b>Past grade distribution</b>						
Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>						
<b>Last change:</b> 17.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF/L-S-VL-073/25	<b>Course title:</b> Diploma Work 3
<b>Educational activities:</b> <b>Type of activities:</b> independent work <b>Number of hours:</b> <b>per week: per level/semester:</b> 50s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF/L-S-VL-072/25 - Diploma Work 2	
<b>Course requirements:</b> communication with the diploma work supervisor presentation of agreed outcomes and their evaluation by the thesis supervisor	
<b>Learning outcomes:</b> - to elaborate the chosen topic at the level of a scientific study - appropriate choice of scientific literature - to apply an appropriate methodology and research methods	
<b>Class syllabus:</b> - working on the core of the diploma thesis - division into chapters, subchapters - preparation of introduction - preparation of conclusion - preparation of bibliography	
<b>Recommended literature:</b> Internal Regulation No. 7/2018 Guideline of the Rector of Comenius University in Bratislava. The full text of Internal Regulation No. 12/2013 of the Guideline of the Rector of Comenius University in Bratislava on the Basic Requirements of Final Theses, Rigorous Theses, and Habilitation Theses, Originality Check, Storing and Accessibility at Comenius University in Bratislava as amended by Appendix No. 1 and Appendix No. 2 Internal Regulation No. 10/2020 Study Regulations Comenius University in Bratislava, Faculty of Medicine Bibliography according to the diploma thesis	
<b>Languages necessary to complete the course:</b> slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>						
Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>						
<b>Last change:</b> 17.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF/L-S-VL-074/25	<b>Course title:</b> Diploma Work 4
<b>Educational activities:</b> <b>Type of activities:</b> independent work <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 100s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 11.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF/L-S-VL-073/25 - Diploma Work 3	
<b>Course requirements:</b> communication with the diploma thesis supervisor presentation of agreed outcomes and their evaluation by the thesis supervisor	
<b>Learning outcomes:</b> - finalisation of the chosen topic - control by the thesis supervisor - thesis submission in the AIS2 information system	
<b>Class syllabus:</b> - abstract in Slovak and English language - introduction - conclusion - bibliography	
<b>Recommended literature:</b> Internal Regulation No 7/2018 Guideline of the Rector of Comenius University in Bratislava. The full text of Internal Regulation No. 12/2013 of the Guideline of the Rector of Comenius University in Bratislava on the Basic Requirements of Final Theses, Rigorous Theses, and Habilitation Theses, Originality Check, Storing and Accessibility at Comenius University in Bratislava as amended by Appendix No. 1 and Appendix No. 2 Internal Regulation No 10/2020 Study Regulations Comenius University in Bratislava, Faculty of Medicine Bibliography according to the diploma thesis	
<b>Languages necessary to complete the course:</b> slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>						
Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>						
<b>Last change:</b> 17.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026					
<b>University:</b> Comenius University Bratislava					
<b>Faculty:</b> Faculty of Medicine					
<b>Course ID:</b> LF.KNTO/L-S-VL-117/19		<b>Course title:</b> Donation and organ transplantation			
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning					
<b>Type, volume, methods and workload of the student - additional information</b> COS					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 9.					
<b>Educational level:</b> I.II.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 49					
A	B	C	D	E	FX
93,88	6,12	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Zuzana Žilinská, PhD., MUDr. Martin Chrastina, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.PK/L-S-VL-120-5/25	<b>Course title:</b> Drugs and Drug Abuse
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.PK/L-S-VL-063/19 - Psychiatry 2	
<b>Course requirements:</b> Exam: Written test (minimally for 60 %). Evaluation of the test: A: 91 – 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less	
<b>Learning outcomes:</b> Knowledge: Basic terminology in addictology. Substance use disorders (addictions): epidemiology, causes and mechanisms of origin, neurobiological aspects, clinical manifestations, withdrawal syndrome, diagnosis, detoxification, pharmacotherapy, psychotherapy, rehabilitation, resocialization, prevention. Addictions related major substance groups (alcohol, anxiolytics and hypnotics, nicotine, opioids, cannabinoids, cocaine, amphetamine psychostimulants, volatile substances, hallucinogens and delirogens). Somatic, social and forensic consequences of psychoactive substance use. Skills: Use of screening tools and assessment scales to assess the symptoms of substance use disorders / withdrawal syndrome.	
<b>Class syllabus:</b> Mental disorders related to the use of addictive psychoactive substances according to the ICD-10 and ICD-11 classification. General criteria of harmful use, dependence / addiction. General principles of screening, diagnosis, treatment, rehabilitation, resocialization, prevention and forensic psychiatric assessment. The place of screening tools and assessment scales in identifying the symptoms of harmful use / addiction / withdrawal syndrome.	
<b>Recommended literature:</b> Izáková, Ľ. a kol.: Drogové závislosti. Bratislava: Univerzita Komenského, 2025, 300 s. Dostupné online: <a href="https://stella.uniba.sk/texty/LF_AN_drogove_zavislosti_2vyd.pdf">https://stella.uniba.sk/texty/LF_AN_drogove_zavislosti_2vyd.pdf</a> . Novotný, V. a kol.: Špeciálna psychiatria. Bratislava: Univerzita Komenského, 2010, 248 s. ISBN 9788022326247	

Kolibáš, E. – Novotný, V.: Alkohol – Drogy – Závislosti. Bratislava: Univerzita Komenského, 2007. 260 s. ISBN 9788022323154					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Ľubomíra Izáková, PhD., doc. MUDr. Mária Kráľová, CSc., MUDr. Viktor Segeda, PhD., MUDr. Zuzana Matzová, PhD., MUDr. Vanda Valkučáková					
<b>Last change:</b> 15.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLFB/L-S-VL-121/19	<b>Course title:</b> Electromagnetic Methods in Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Individual study: 26 hours/semester Method of education: face-to-face learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> Conditions for registering for the exam: - Active participation in lectures – weight 0.1 - Mid-term written tests (at least 70,0 %) – weight 0.3 Exam: - Written test (at least 70,0 %) - weight 0.5 - Oral exam - presentation of selected topic - weight 0.1 Rating: A: 94,0 % – 100,0 %; B: 88,0 % – 93,9 %; C: 82,0 % – 87,9 %; D: 76,0 % – 81,9 %; E: 70,0 – 75,9 %; Fx: 69.9 % – 0.0 %. The overall rating will be determined from the weighted average of the ratings received, with no partial rating being Fx.	
<b>Learning outcomes:</b> Knowledge: Upon successful completion of the course, students should be familiar with the physical principles of electromagnetic methods in medicine as a diagnostic and therapeutic tool, including the physical effects of external factors on the body, in particular in terms of health protection. Skills: Ability to determine the suitability of using an electromagnetic method for a particular patient in terms of the usefulness of the information obtained in diagnostic methods or patient benefit in therapeutic methods and patient safety.	
<b>Class syllabus:</b> Anatomical, physiological and physical basics of bioelectromagnetism. Transport processes at the cellular level. Biophysics of excitation processes. Biological signals as a basis for diagnostic methods in medicine (ECG, EEG, ERG, EGG, EMG, MCG, MEG, MMG). Basics of biomedical electronics. Types of electrodes.	

Passive electrical and magnetic properties of cells, tissues and organs as the basis of therapeutic methods. Electrical and magnetic stimulation of nervous and cardiac tissue, defibrillation of the heart. Impedance plethysmography, impedance tomography, electrodermal response. Characteristics of electromagnetic fields and their interaction with organism. Application of DC and AC - electrotherapeutic systems. Electromagnetic spectrum, its basic characteristics and assignment of regions to individual spectroscopic and tomographic methods. Influence of non-ionizing electromagnetic radiation to the body. Laser as optical electromagnetic radiation - its interaction with organism, use. Health and safety at registration and application of electrical and magnetic signals.

**Recommended literature:**

- BENEŠ J., JIRÁK D., VÍTEK F. Základy lékařské fyziky. [V Praze] : Charles University in Prague, Karolinum Press. 2015. ISBN: 9788024626451. 9788024626710 - vybrané kapitoly
- MACFARLANE, P.W., OOSTEROM, A., PAHLM, O., KLIGFIELD, P., JANSE, M., CAMM, J. (Eds.) Comprehensive Electrocardiology. London: Springer, 2010 (2nd edition). In 4 volumes. 2308 p. ISBN: 978-1-84882-045-6 – vybrané kapitoly.
- MALMIVUO, J., PLONSEY, R. Bioelectromagnetism - Principles and Applications of Bioelectric and Biomagnetic Fields. New York - Oxford: Oxford University Press, 1995, 641 p. ISBN: 978-0-19-505823-9 – vybrané kapitoly (<https://www.bem.fi/book/bem.fi>).
- MORNSTEIN, V. a kol. Lékařská fyzika a biofyzika. Brno : MU Brno, 2018, 339 s. ISBN 9788021089846 – vybrané kapitoly.
- NAVRÁTIL, L., ROSINA, J. a kol. Medicínská biofyzika. Praha : Grada, 2019, 432 s. ISBN 9788027102099 – vybrané kapitoly.
- WEBSTER, J. G. (ed.) The Physiological Measurement Handbook. New York : John Wiley&Sons, Inc., 2015 (4th edition). 587 p. ISBN 978-1-4398-0841-1 – selected chapters.
- Prednášky na portáli MEFANET LF UK – sekcia Biofyzika (<http://portal.fmed.uniba.sk/>).
- Doplnkový e-kurz ([www.moja.uniba.sk](http://www.moja.uniba.sk)).
- Ďalšie dostupné inovované literárne a internetové pramene.

**Languages necessary to complete the course:**

Slovak, English an advantage

**Notes:**

maximal capacity 12 students

**Past grade distribution**

Total number of evaluated students: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. RNDr. Mgr. Katarína Kozlíková, CSc., PhD. Michal Trnka, PhD.

**Last change:** 27.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚCJ/L-S-VL-081/25	<b>Course title:</b> English Language 1
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 36s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 3.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the practicals, 2 written tests: one midterm (50 points, makes 15% of the overall assessment) and one final test (100 points, makes 85% of the overall assessment). Test assessment: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall grade (minimum of 60%) is determined by the grades obtained in the midterm (15%) and final (85%) test and is their weighted average.	
<b>Learning outcomes:</b> Knowledge: Acquisition of professional vocabulary from individual medical fields; deepening of knowledge in the field of morphology of a foreign language. Correct use of syntax when preparing lectures, papers and presentations. Skills: Language competence enabling the highest possible level of obtaining information and knowledge from foreign language sources; written and oral presentation of own knowledge and opinions in a foreign language; ability to communicate with the patient; ability to understand oral speech, lectures on professional medical topics.	
<b>Class syllabus:</b> Anatomy – basic anatomical terms; the human brain; congenital anomalies. Use of articles. Cardiology – cardiovascular system; diagnoses and interventions. Present tenses. Oncology – tumor diseases; harmful effects of smoking; empathetic communication and patient care. Past tenses. Surgery – basic surgical terms; types of stitches; communication with the patient before surgery. Use of tenses. Oncosurgery – surgical procedures for oncological diagnoses; preoperative procedures. Text coherence. Infectious diseases – ways of spreading and treatment; Covid-19 and obesity; HIV. Passive voice. Pediatrics – specifics of working with pediatric patients, childhood diseases, twin twin transfusion syndrome. Infinitive structures and gerund. Psychiatry – depression and risks of antidepressants; schizophrenia; mental health care. Modal verbs. Radiology – imaging methods, their use, and possible risks. Adjectives – comparisons.	
<b>Recommended literature:</b>	

Bábelová, J., Hromadová, K., Jurišová, E.: Advanced English for Medical Students. Bratislava: Univerzita Komenského v Bratislave 2021. 247 p. ISBN 978-80-223-5135- 5  
 Bábelová, J., Friedová, L.: New English for Medical Students. Bratislava: Univerzita Komenského v Bratislave 2017. 304 p. ISBN 978-80-223-3495-2

**Languages necessary to complete the course:**

English

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** Ing. Janka Bábelová, PhD., PhDr. Valéria Jamrichová, Mgr. Melinda Vasil'ová, PhD., Mgr. Marína Kšiňanová, PhD., Mgr. Katarína Hromadová, PhD., Mgr. Radoslav Ďurajka, PhD., Ing. Mgr. Erika Jurišová, PhD., PhDr. Tomáš Hamar, PhD., PaedDr. Stanislav Kováč, PhD., doc. PhDr. Helena Šajgalíková, PhD., Mgr. Petra Červeňová, Mgr. Ľubica Olejníková, Mgr. Zuzana Motešická, PhD., PaedDr. Zuzana Pekařová

**Last change:** 22.01.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚCJ/L-S-VL-082/17	<b>Course title:</b> English Language 2
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 36s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 4.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚCJ/L-S-VL-081/17 - English Language 1 or LF.ÚCJ/L-S-VL-081/25 - English Language 1	
<b>Course requirements:</b> 100% attendance at the practicals, 2 written tests: one midterm (50 points, makes 15% of the assessment of the written part of the exam) and one exam test (100 points, makes 85% of the assessment of the written part of the exam). Presentation on a medical topic. Oral part of the exam – discussion on a selected professional topic. Test assessment: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall grade (minimum of 60%) is determined by the weighted average of the grades obtained in the midterm (15%) and exam test (85%), minimum of 60%, and the result of the oral part of the exam.	
<b>Learning outcomes:</b> Knowledge: Acquisition of professional vocabulary from individual medical fields; deepening of knowledge in the field of morphology of a foreign language. Correct use of syntax when preparing lectures, papers and presentations. Skills: Language competence enabling the highest possible level of obtaining information and knowledge from foreign language sources; written and oral presentation of own knowledge and opinions in a foreign language; ability to communicate with the patient; ability to understand oral speech, lectures on professional medical topics.	
<b>Class syllabus:</b> Gynaecology – basic terms in gynaecology and obstetrics; endometriosis; in vitro fertilization (IVF); surgical procedures. Indirect speech. Medical history – structure of a conversation with a patient; simulation of taking medical history. Pronouns. Genetics – DNA replication; genetic predispositions and disorders. Word formation. Biochemistry – basics of biochemical processes. Relative clauses and word order. Dermatology – specifics of the field; skin conditions and their treatment. Future tenses. Alternative medicine – alternative and complementary forms of treatment, their significance, and possible risks. Irregular plural noun forms. Medical ethics – ethical topics in medicine. Conditional sentences. Student presentations – professional topics followed by discussion.	

<b>Recommended literature:</b> Bábelová, J., Hromadová, K., Jurišová, E.: Advanced English for Medical Students. Bratislava: Univerzita Komenského v Bratislave 2021. 247 p. ISBN 978-80-223-5135- 5 Bábelová, J., Friedová, L.: New English for Medical Students. Bratislava: Univerzita Komenského v Bratislave 2017. 304 p. ISBN 978-80-223-3495-2					
<b>Languages necessary to complete the course:</b> English					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 2708					
A	B	C	D	E	FX
58,38	25,11	10,16	3,99	1,81	0,55
<b>Lecturers:</b> Ing. Janka Bábelová, PhD., PhDr. Valéria Jamrichová, Mgr. Melinda Vasiľová, PhD., Mgr. Marína Kšiňanová, PhD., Mgr. Katarína Hromadová, PhD., Mgr. Radoslav Ďurajka, PhD., Ing. Mgr. Erika Jurišová, PhD., PhDr. Tomáš Hamar, PhD., PaedDr. Stanislav Kováč, PhD., Mgr. Petra Červeňová, doc. PhDr. Helena Šajgalíková, PhD., Mgr. Ľubica Olejníková, Mgr. Zuzana Motešická, PhD., PaedDr. Zuzana Pekařová					
<b>Last change:</b> 22.05.2024					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚE/L-S-VL-010/20	<b>Course title:</b> Epidemiology
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9., 10..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the practicals - 1 written test (minimum 70% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. Final exam: oral - theoretical exam: 3 question (methods in epidemiology, epidemiology of communicable diseases, epidemiology of noncommunicable diseases) The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> Knowledge of epidemiologic situation of the most frequent communicable and noncommunicable diseases in the world, Europe and Slovakia. Knowledge of methods of monitoring of population health status, ability to list and interpret basic health indicators. Ability to define and describe basic epidemiologic methods and their use in monitoring and assessment of disease occurrence. Ability to define and find data sources on disease occurrence in Slovakia, Europe and in the world. Ability to interpret principles of vaccinology and vaccine effectiveness evaluation. Knowledge on prevalence of the most important determinants of population health. Ability to describe international and national situation in nosocomial infection prevalence, monitoring, risk factors and preventive measures. Ability to define strength of evidence coming from epidemiological studies and interpret its use in evidence-based medicine. <b>Skills:</b> Skill to find up-to-date information on communicable and noncommunicable disease prevalence in national and international databases. Ability to use basic epidemiological methods - description and analysis - for description of specific disease occurrence and calculation of strength of association between disease outcome and determining factor. Skill to calculate basic indicators of population health status from available data and to interpret the findings. Ability to define principles of communicable diseases dissemination, steps of outbreak investigation and skill to propose outbreak response measures in model situation. Skill to critically read outputs of epidemiologic studies	

published in scientific literature - ability to assess the used methods and limitations, correctly interpret published results.

**Class syllabus:****Lectures:**

Use of epidemiology as a source of evidence for evidence-based medicine. Epidemiologic situation of communicable and noncommunicable diseases in the world, Europe and in the Slovak Republic. Burden of diseases. Epidemiology and prevention of nosocomial infections. Immunization programmes and vaccine effectiveness assessment.

**Practicals:**

Epidemiologic situation of communicable and noncommunicable diseases in the world, Europe and in the Slovak Republic. Population health indicators. Epidemiologic methods - description and analysis. Data collection and processing. Epidemiologic studies. Epidemic process, classification and prevention of infectious diseases. Immunization and vaccine effectiveness assessment. Epidemiology and prevention of nosocomial infections. Risk factors and prevention of most frequent noncommunicable diseases. Importance of epidemiologic monitoring and assessment for evidence based medicine.

**Recommended literature:**

Bakoss P. (ed) Epidemiológia. 4.vydanie. Univerzita Komenského v Bratislave. 2013. ISBN 9788022334990

Bražinová A. Epidemiologické metódy a ich uplatnenie v epidemiológii vybraných ochorení. Univerzita Komenského v Bratislave. ISBN 978-80-223-4982-6

Bražinová A. (ed) - Praktické cvičenia z epidemiológie

Celentano D. Gordis epidemiology. 6th Edition. Elsevier Science 2019. ISBN 0323552293

**Languages necessary to complete the course:**

slovak

**Notes:****Past grade distribution**

Total number of evaluated students: 1474

A	B	C	D	E	FX
54,88	26,87	12,75	4,21	1,09	0,2

**Lecturers:** prof. MUDr. Alexandra Bražinová, PhD., MPH, MUDr. Mgr. Miriam Fulová, PhD., MUDr. Vanda Výrosteková, CSc., Mgr. Martina Kotrbancová, PhD., Mgr. Dorota Nováková, PhD., RNDr. Jana Perželová, PhD.

**Last change:** 29.05.2024

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚE/L-S-VL-122/19	<b>Course title:</b> Epidemiology of selected diseases
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚH/L-S-VL-020/19 - Hygiene	
<b>Course requirements:</b> - 100% attendance at lectures Final exam: oral - theoretical exam: 2 question (methods in epidemiology, epidemiology of selected diseases) The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: Knowledge of epidemiologic situation of the most frequent and selected diseases in the world, Europe and Slovakia. Knowledge of methods of monitoring of population health status, ability to list and interpret basic health indicators. Ability to define and describe basic epidemiologic methods and their use in monitoring and assessment of selected disease occurrence. Ability to use gained knowledge in description of epidemiology of selected disease. Understanding of importance of epidemiology for clinical practice and prevention Skills: Skill to find up-to-date information on communicable and noncommunicable disease prevalence in national and international databases. Ability to use basic epidemiological methods - description and analysis - for description of specific selected disease occurrence and calculation of strength of association between disease outcome and determining factor. Skill to calculate basic indicators of population health status from available data and to interpret the findings. Skill to critically read outputs of epidemiologic studies of selected disease published in scientific literature - ability to assess the used methods and limitations, correctly interpret published results.	
<b>Class syllabus:</b> Epidemiologic situation of selected diseases in the world, Europe and in the Slovak Republic. Global burden of diseases. Population health indicators of selected diseases. Data collection and processing and epidemiologic studies of selected diseases. Importance of epidemiologic monitoring and assessment for evidence based medicine.	
<b>Recommended literature:</b>	

<p>Bražinová A. Epidemiologické metódy a ich uplatnenie v epidemiológii vybraných ochorení. Univerzita Komenského v Bratislave. ISBN 978-80-223-4982-6</p> <p>Bražinová A. (ed) - Praktické cvičenia z epidemiológie. Univerzita Komenského v Bratislave. ISBN 978-80-223-5404-2</p> <p>Bražinová A. Epidemiológia neprenosných ochorení. Univerzita Komenského v Bratislave.</p> <p>Celentano D. Gordis epidemiology. 6th Edition. Elsevier Science 2019. ISBN 0323552293</p>					
<p><b>Languages necessary to complete the course:</b></p> <p>Slovak</p>					
<p><b>Notes:</b></p>					
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 0</p>					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<p><b>Lecturers:</b> prof. MUDr. Alexandra Bražinová, PhD., MPH, MUDr. Mgr. Miriam Fulová, PhD.</p>					
<p><b>Last change:</b> 16.05.2025</p>					
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚE/L-S-VL-123/19	<b>Course title:</b> Epidemiological methods in scientific work
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at lectures Final exam: oral - theoretical exam: 2 question (methods in epidemiology, epidemiology of selected diseases) The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: Knowledge of epidemiologic methods and designs used in research. Ability to define and describe basic epidemiologic methods - description and analysis. Understanding of implementation design of observational and interventional studies. Ability to describe the use of basic epidemiologic methods and designs for monitoring and assessment of selected disease occurrence. Ability to use gained knowledge in critical reading of scientific literature. Skills: Skill to find up-to-date scientific evidence on disease and health status prevalence and their determinants in national and international electronic databases. Ability to interpret the used basic epidemiological methods - description and analysis - in published studies. Ability to interpret designs and measures used for the description of specific selected disease occurrence and calculation of strength of association between disease outcome and determining factor. Skill to critically read outputs of epidemiologic studies of selected disease published in scientific literature - ability to assess the used methods and limitations, correctly interpret published results.	
<b>Class syllabus:</b> Epidemiologic methods used for disease and health status prevalence and their determinants. Search of scientific evidence in international databases and their interpretation. Population health indicators of selected diseases. Data collection and processing and epidemiologic studies of selected diseases. Evidence based decision making. Importance of epidemiologic monitoring and assessment for evidence based medicine.	
<b>Recommended literature:</b>	

Bražinová A. Epidemiologické metódy a ich uplatnenie v epidemiológii vybraných ochorení. Univerzita Komenského v Bratislave. ISBN 978-80-223-4982-6  
 Bražinová A. (ed) - Praktické cvičenia z epidemiológie. Univerzita Komenského v Bratislave. ISBN 978-80-223-5404-2  
 Bražinová A. Epidemiológia neprenosných ochorení. Univerzita Komenského v Bratislave.  
 Celentano D. Gordis epidemiology. 6th Edition. Elsevier Science 2019. ISBN 0323552293

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Alexandra Bražinová, PhD., MPH

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.FyÚ/L-S-VL-166/20	<b>Course title:</b> Essentials of Physiological and Clinical Nutrition
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100 % presence in lectures and seminars Submitting of all written assignments, oral presentation of an assigned topic Examination: final written assignment Evaluation: A: 95 - 100 %, B: 89 – 94 %, C: 83 – 88 %, D: 77 – 82 %, E: 70 – 76 %, Fx: 69 % or less. The overall rating is determined as the average of the marks for assignments and the mark for the final written assignment.	
<b>Learning outcomes:</b> Knowledge: Presenting the impact of food components on body functions and health. Explaining the concept of nutritional value of food and nutrition. Distinguish the specifics of nutritional requirements of specific groups (children, pregnant women, seniors, patients, etc.). To argue the role of nutrition and its components in the prevention and treatment of health disorders. To interpret the principles of clinical nutrition and diet system, the ability to apply them in clinical situations. Ability to analyse the risks and benefits of alternative nutrition. To analyse patients' diet. Nutritional counselling and design of dietary recommendations for a patient. Skills: Ability to analyse and evaluate an individual's nutrition. Evaluate the basic indicators of an individual's nutritional status. Provide basic nutritional counselling based on current scientific knowledge and recommendations, determine the energy needs of the individual and the optimal representation of macronutrients in the diet. Design a nutrition plan / diet for healthy people and people with special nutritional needs. Assess the benefits and potential health risks of different dietary approaches. Justify and select relevant sources of nutritional information in scientific literature.	
<b>Class syllabus:</b> Nutrients and their functions. Fats, carbohydrates and proteins - classification, food sources, importance for body function and health. Dietary fibre, vitamins and minerals - food sources, importance for body function and health. Optimal intake of nutrients. Other nutritionally important food components and their effect on the body. Phytochemicals and nutraceuticals. Nutritional	

supplements, their risks and benefits. Main food groups, healthy food choices. Energy requirements of the body and calculation of energy needs. Energy and nutritional value of food. Balanced diet, foods with a high nutritional value. Current concept of healthy nutrition. Current trends and deficiencies in nutrition. Nutritional recommendations. Nutrition of population groups with special dietary requirements (children, seniors, athletes, etc.). Nutrition in the prevention and treatment of diseases - obesity, cardiovascular diseases, cancer, osteoporosis, diabetes mellitus, diseases of the digestive system. Food allergies and intolerances. Anorexia nervosa and bulimia nervosa. Dietetics, dietary system in hospitals, characteristics of diets. Enteral and parenteral nutrition. Alternative and fad diets, approaches to assessing their potential risks and benefits. Nutrition as part of a healthy lifestyle. Nutrition and information resources. Counselling in nutrition.

**Recommended literature:**

Kohout, P. Klinická výživa. Praha: Galén, 2021, 944 s. ISBN: 978-80-7492-555-9  
 Ostatníková, D. a kol. Základy lékařské fyziologie. Bratislava: Univerzita Komenského v Bratislave, 2022. 290 s. ISBN 978-80-223-5458-5.  
 Sharma, S. a kol. Klinická výživa a dietologie v kostce. Praha: Grada, 2018, 240 s. ISBN 9788027102280.

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 89

A	B	C	D	E	FX
68,54	31,46	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Katarína Babinská, PhD.

**Last change:** 20.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KUVM/L-S-VL-061/25	<b>Course title:</b> First Aid
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 9s / 9s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% participation Practical CPR Written exam – test with minimum achievement of 60% + 2 teoretical questions Test evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less Final evaluation will be calculated as the average of achieved partial evaluations.	
<b>Learning outcomes:</b> <b>Knowledge:</b> - in theory handle the providing of the right first aid at a place of sudden injury as an integral part of health care procedure - to describe the organization of Integrated Rescue System in Slovakia <b>Skills:</b> - practical basic life support, basics of wound care, transportation of the injured. Manipulation with automatic external defibrillator.	
<b>Class syllabus:</b> Motivation to provide the first aid (personal and legal). Basic life functions, their functional anathomy and interactions. Diagnostics of basic life functions. Basic life saving moves. Cardiopulmonary resuscitation of adults and children. Automated external defibrillation. First aid in selected sudden injuries (acute coronary syndrome – heart attack, stroke, traffic accidents and other injuries, unconsciousness, choking, breathlessnes, stopped blood circulation, heavy bleeding, cramps). Prevention of sudden injuries.	
<b>Recommended literature:</b> Masár, O. a kol.: Základy poskytovania prvej pomoci pre študentov medicíny, Brno, Tribun EU, 2011 Masár a kol. : Prvá pomoc pre medikov, Univerzita Komenského 2012	
<b>Languages necessary to complete the course:</b> slovak	

<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Oto Masár, CSc., PhDr. Hana Belejová, PhD., PhDr. Dušan Sysel, PhD., MUDr. Teodor Bachleda, PhD., MBA, PhDr. Adrián Fabiny						
<b>Last change:</b> 05.03.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSL/L-S-VL-066/20	<b>Course title:</b> Forensic Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9., 10..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the interships <b>Final exam:</b> - theoretical exam: 2 questions Exam evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined on the basis of the theoretical exam results.	
<b>Learning outcomes:</b> Knowledge and skills: To learn the basics of forensic medicine and orientation in criminal matters in medical practice. To learn the basics about external and internal examination of a dead body and about determination of the cause of death. To acquire the knowledge about the compilation of medical certificates and expert's opinions and about the process of their interpretation in front of the court. Examination of a dead body and filling in official documents. Participation in the process of identification of persons with undetected identity. Examination of an alleged assailant (principles, documentation). Examination of a victim (principles, documentation). Compilation of medical certificates.	
<b>Class syllabus:</b> Forensic medicine, its importance and role in medicine and society. Principles of criminal proceedings. Merits of selected crimes. Courts and prosecution offices. Doctor as a witness, doctor as an expert. Protective treatment. Bodily injury, severe bodily harm. Medical liability. Death and process of dying. Procedures taken after death. Categories and manners of death. Early and late postmortem changes. Sudden death in children and in adults. Abrasions, contusions. Lacerations, incised, slash, stab and chopping wounds. Firearm injuries – single projectile injuries, shot-gun pellets injuries, explosive injuries. Mechanical asphyxia and its forms - hanging, ligature strangulation, manual strangulation (throttling), smothering, postural asphyxia, and drowning. Fall from height. The effect of changes in atmospheric pressure and of elevated and reduced temperature. The effect of electricity and lightning. Forensic procedures to detect poisoning.	
<b>Recommended literature:</b>	

Šidlo, J.: Súdne lekárstvo: súdnolekárska tanatológia, súdnolekárska traumatológia. Univerzita Komenského, Bratislava, 2020  
 Šidlo, J.: Súdne lekárstvo: pitva. Univerzita Komenského, Bratislava, 2020  
 Šidlo, J.: Súdne lekárstvo: prehliadka mŕtveho tela. Univerzita Komenského, Bratislava, 2020  
 Hirt, M. et al.: Soudní lékařství I. díl, Grada, Praha, 2015  
 Hirt, M. et al.: Soudní lékařství II. díl, Grada, Praha, 2016

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 1475

A	B	C	D	E	FX
70,51	21,63	4,61	2,1	1,08	0,07

**Lecturers:** prof. MUDr. Jozef Šidlo, CSc.

**Last change:** 29.11.2022

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSL/L-S-VL-156/19	<b>Course title:</b> Forensic Medicine and Medical Jurisprudence in Medical Practice
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Final exam: - oral theoretical Exam evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%.	
<b>Learning outcomes:</b> Knowledge: <ul style="list-style-type: none"> <li>- acquire advanced knowledge of forensic medicine and basic criminal law issues in medical practice</li> <li>- acquire knowledge for the correct assessment of the mechanisms of injuries to living persons and the diagnosis of the causes of death during the examination of the corpse</li> <li>- acquire knowledge for the proper management of medical records, compilation of medical certificates and avoidance of the most common mistakes</li> </ul> Skills: <ul style="list-style-type: none"> <li>- apply the acquired knowledge in practice</li> </ul>	
<b>Class syllabus:</b> Legal aspects of the practice of the medical profession in a state (municipal) medical facility and in a non-state facility. Medical documentation and its importance, the most common management mistakes. Criminal liability of a physician. The physician's civil liability for the damage suffered by the patient. Individual responsibility. Responsibility in teamwork, division vertically and horizontally. Special aspects of surgical disciplines. Medical error, medical mistake. The concept of lex artis. The concept of the current state of medical science in the provision of health care. Childbirth and abortion from a forensic point of view. Murder of a new born baby by mother. Leaving the child. Criminal abortion and its methods. Maltreatment. Sudden death in adulthood, mainly due to coronary causes. Objectification of manifestations, correlation with morphological findings. The most common causes of death. Identification of living and dead people according to knowledge, documents, fingerprints, morphometry, teeth, bones. Determining the age of the living and the deceased persons. Somatic signs of nationalities, ethnicity. Road fatalities. Causes of	

accidents. Examination of the current state of active participants in the accident. Types of collisions and the corresponding pattern of injuries of soft parts, internal organs, skeleton.					
<b>Recommended literature:</b> Šidlo, J.: Súdne lekárstvo: súdnolekárska tanatológia, súdnolekárska traumatológia. Univerzita Komenského, Bratislava, 2020 Šidlo, J.: Súdne lekárstvo: pitva. Univerzita Komenského, Bratislava, 2020 Šidlo, J.: Súdne lekárstvo: prehliadka mŕtveho tela. Univerzita Komenského, Bratislava, 2020 Hirt, M. et al.: Soudní lékařství I. díl, Grada, Praha, 2015 Hirt, M. et al.: Soudní lékařství II. díl, Grada, Praha, 2016					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 126					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Jozef Šidlo, CSc.					
<b>Last change:</b> 19.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚVL/L-S-VL-069/25	<b>Course title:</b> General Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 10s / 5s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9., 10..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚFKF/L-S-VL-012/19 - Pharmacology 2	
<b>Course requirements:</b> 100% participation in internships Evaluation of the student, the level of his knowledge by the lecturer after completing the internship. Writing medical report – Case report and evaluation sheet from internship.	
<b>Learning outcomes:</b> Knowledge: <ul style="list-style-type: none"> <li>- Know the basic differential – diagnostic and therapeutic procedures in the general practitioner's office</li> <li>- Know the ethical and legal principles of providing healthcare</li> <li>- Correct communication with patients</li> <li>- Recognize acute conditions in a general practitioner's outpatient office</li> <li>- Describe the physical examination in a general practitioner's outpatient office</li> <li>- Know the specifics of the work of a general practitioner, e.g. preventive examination, preoperative examination, vaccination, arterial hypertension, dyslipidemia.</li> <li>- Know the prescription of medicines and medical devices</li> <li>- Identify violence in all forms, cooperate with competent authorities</li> <li>- Know the organization and work system of the general practitioner</li> </ul> Skills: <ul style="list-style-type: none"> <li>- Analyze the information obtained</li> <li>- Master basic diagnostic, therapeutic and evaluation procedures in the general practitioner's office, including POCT, ECG, ancle brachial index with pulse wave velocity.</li> <li>- Manage acute conditions in the general practitioner's office</li> <li>- Demonstrate the ability to communicate effectively with patients</li> <li>- Manage medical documentation electronically and in writing form</li> <li>- Apply evidence-based work</li> <li>- Knowledge about technics how to apply i.v., sc. and i.m. therapy, vaccination, blood examination</li> </ul>	
<b>Class syllabus:</b> Lectures	

<ul style="list-style-type: none"> <li>• Introduction of Department of General Medicine. How general practitioners work in Slovakia. How and why do we stratify the patient in the general office ?</li> <li>• History and introduction to subject General medicine. How to write case report ?</li> </ul> <p>Metabolic syndrom - case from my practice. Preoperative examination.</p> <ul style="list-style-type: none"> <li>• Prevention and preventive programs.</li> <li>• Vaccination in the general practitioner's office.</li> <li>• Measurement of ankle brachial index and pulse wave in the general practitioner's office.</li> </ul> <p>Young general practitioners in the world.</p> <ul style="list-style-type: none"> <li>• Upper and lower respiratory tract infections – differential diagnosis and correct procedure.</li> </ul> <p>Practical training</p> <p>History of general medicine. Basic terms.</p> <p>2. Management of general medicine for adults - overview: medical, partially medical and non-medical activities.</p> <p>3. Diagnosis and treatment of patients in a general practitioner's outpatient clinic - from symptom and syndrome to diagnosis (diagnosis, differential diagnosis and therapeutic options, SV and LZ, cooperation with SAS).</p> <p>4. Specifics of general practitioner's work – preventive and preoperative examinations, vaccination, diagnostics, pre-hospital medical care, visiting service, cooperation with the Social and Health Insurance Agency.</p> <p>5. Acute conditions in the general practitioner's office.</p> <p>6. Correct Communication with the patient.</p> <p>7. Keeping medical documentation in the general practitioner's office.</p> <p>8. Assessment activity.</p>																				
<p><b>Recommended literature:</b></p> <p>1. Špániková B, Špánik S.a kol: Praktická medicína, 2016, Bratislava, Solen, 661s,ISBN 978-80-89858-01-9.</p> <p>2. Gazdíkova K a kol.:Všeobecné lekárstvo 2021, Bratislava, Solen 1552s, ISBN978-80-89858-23-1.</p>																				
<p><b>Languages necessary to complete the course:</b></p> <p>Slovak</p>																				
<p><b>Notes:</b></p> <p>1. practical internship in the general office (the student can choose from the list): 1 day, anytime during actual semester</p> <ul style="list-style-type: none"> <li>- the student must contact (by phone or email) the trainer at the accredited training offices (listed in contacts) and arrange an internship at the office in time</li> <li>- the trainer trains optimally one, maximum two students in one day</li> </ul> <p>2. the trainer evaluates the student's knowledge, his activity and presence</p> <p>3. the student is required to prepare a structured evaluation sheet in which he briefly describes his first day in the general office and the most interesting case study</p>																				
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 0</p> <table> <tr> <th>A</th><th>ABS0</th><th>B</th><th>C</th><th>D</th><th>E</th><th>FX</th></tr> <tr> <td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td></tr> </table>							A	ABS0	B	C	D	E	FX	0,0	0,0	0,0	0,0	0,0	0,0	0,0
A	ABS0	B	C	D	E	FX														
0,0	0,0	0,0	0,0	0,0	0,0	0,0														
<p><b>Lecturers:</b> doc. MUDr. Marek Kučera, PhD., MPH, MUDr. Beata Špániková, PhD.</p>																				
<p><b>Last change:</b> 21.01.2025</p>																				

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KG1/L-S-VL-124/19	<b>Course title:</b> Geriatrics
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK5/L-S-VL-093/22 - Internal Medicine 4	
<b>Course requirements:</b> general faculty requirements for COS, 80 % attendance at the lectures, final exam: 2 question (general geriatrics – 1 question, special geriatrics – 1 question)	
<b>Learning outcomes:</b> Knowledge: the main outputs obtained by the student by completing the subject are the knowledge and abilities necessary to understand the basic set of facts, principles, theories and procedures of clinical geriatrics according to the subject syllabus, with particular regard to the diagnostics and treatment of diseases with high specificity for seniors and/or high incidence in seniors. Skills: after successful completion of the subject, the student should be able to carry out basic examination and to consider the diagnostics and treatment of the senior, taking into account his/her specificities given in particular by polymorbidity and social status, with particular regard to the diagnostics and treatment of diseases with high specificity for seniors and/or high incidence in seniors, based on the logical and creative use of acquired knowledge.	
<b>Class syllabus:</b> <ol style="list-style-type: none"> <li>1. Ageing theories; Premature aging syndromes.</li> <li>2. Demography of ageing.</li> <li>3. Social factors in geriatrics.</li> <li>4. System of providing healthcare to seniors.</li> <li>5. Healthy aging and prevention in geriatrics.</li> <li>6. Communication with senior and his family.</li> <li>7. Legal aspects more specific to geriatrics.</li> <li>8. Fragility of senior.</li> <li>9. Polymorbidity.</li> <li>10. Specifics of clinical course of diseases in seniors (general).</li> <li>11. Specifics of disease diagnostics in seniors (general).</li> <li>12. Specifics of disease treatment in seniors (general).</li> </ol>	



13. Specifics of diseases (cardiovascular, respiratory, gastrointestinal, nephrological - urological/ gynaecological, endocrine, haematological, infectious, of locomotor apparatus, neurological, psychiatric, sensory) in seniors; geriatric giants					
<b>Recommended literature:</b> Krajčík Š, Dúbrava M, Bartošovič I, Mikus P (Eds). Geriatria. Bratislava, 2. vydanie 2022 – v tlači (1. vydanie 2010, Eds.: Hegyi L, Krajčík Š).					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 1					
A	B	C	D	E	FX
0,0	100,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Martin Dúbrava, CSc.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚCJ/L-S-VL-145-4/19	<b>Course title:</b> German Language 1
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the practicals, 2 written tests: one midterm (50 points, makes 15% of the assessment of the written part of the exam) and one exam test (100 points, makes 85% of the assessment of the written part of the exam). Oral part of the exam – discussion on a selected professional topic. Test assessment: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall grade (minimum of 60%) is determined by the weighted average of the grades obtained in the midterm (15%) and exam (85%) test and the result of the oral part of the exam.	
<b>Learning outcomes:</b> Knowledge: Acquisition of professional vocabulary from individual medical fields; deepening of knowledge in the field of morphology of a foreign language. Correct use of syntax when preparing lectures, papers and presentations. Skills: Language competence enabling the highest possible level of obtaining information and knowledge from foreign language sources; written and oral presentation of own knowledge and opinions in a foreign language; ability to communicate with the patient; ability to understand oral speech, lectures on professional medical topics.	
<b>Class syllabus:</b> Anatomy and the medical profession - vocabulary (body parts, organs, structures), expression of opinion and assumptions. Hospital - departments, processes, equipment, staff and their roles, relative sentences. Oncology - diagnosis and treatment procedures, prepositions. Infectology - description of symptoms, information retrieval and summarizing. Trauma medicine - first aid, the past participle. Emergency medicine - case studies, adjectives. Urology - most common urological problems and their treatment, summarising texts. Endocrinology - thyroid diseases, compound nouns. Cardiology - high blood pressure, heart attack, formation of nouns from verbs. Dermatology - skin and vascular diseases, subordinate clauses. Ophthalmology - diseases of the eyes, gradation	

of adjectives. Sports medicine - musculoskeletal diseases and injuries, genitive case. Rehabilitation medicine - patient roles and communication, past tenses.					
<b>Recommended literature:</b> Ivanová, A., Hromadová, K.: Deutsch für medizinische Berufe. Bratislava: Univerzita Komenského, 2013. 262 p. ISBN 978-80-223-3400-6. Wortberg, Ch.: Menschen im Beruf – Medizin B2/C1, Kursbuch mit Audio-CD. Max Hueber Verlag 2016. 152 s. ISBN 9783197011905					
<b>Languages necessary to complete the course:</b> German, Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 136					
A	B	C	D	E	FX
82,35	10,29	5,88	1,47	0,0	0,0
<b>Lecturers:</b> PhDr. Tomáš Hamar, PhD., Mgr. Katarína Hromadová, PhD., Ing. Mgr. Erika Jurišová, PhD., Ing. Janka Bábelová, PhD., Mgr. Radoslav Ďurajka, PhD., Mgr. Lucia Lauková, PhD., Mgr. Zuzana Motešická, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚCJ/L-S-VL-145-5/19	<b>Course title:</b> German Language 1
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the practicals, 2 written tests: one midterm (50 points, makes 15% of the assessment of the written part of the exam) and one exam test (100 points, makes 85% of the assessment of the written part of the exam). Oral part of the exam – discussion on a selected professional topic. Test assessment: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall grade (minimum of 60%) is determined by the weighted average of the grades obtained in the midterm (15%) and exam (85%) test and the result of the oral part of the exam.	
<b>Learning outcomes:</b> Knowledge: Acquisition of professional vocabulary from individual medical fields; deepening of knowledge in the field of morphology of a foreign language. Correct use of syntax when preparing lectures, papers and presentations. Skills: Language competence enabling the highest possible level of obtaining information and knowledge from foreign language sources; written and oral presentation of own knowledge and opinions in a foreign language; ability to communicate with the patient; ability to understand oral speech, lectures on professional medical topics.	
<b>Class syllabus:</b> Anatomy and the medical profession - vocabulary (body parts, organs, structures), expression of opinion and assumptions. Hospital - departments, processes, equipment, staff and their roles, relative sentences. Oncology - diagnosis and treatment procedures, prepositions. Infectology - description of symptoms, information retrieval and summarizing. Trauma medicine - first aid, the past participle. Emergency medicine - case studies, adjectives. Urology - most common urological problems and their treatment, summarising texts. Endocrinology - thyroid diseases, compound nouns. Cardiology - high blood pressure, heart attack, formation of nouns from verbs. Dermatology - skin and vascular diseases, subordinate clauses. Ophthalmology - diseases of the eyes, gradation	

of adjectives. Sports medicine - musculoskeletal diseases and injuries, genitive case. Rehabilitation medicine - patient roles and communication, past tenses.					
<b>Recommended literature:</b> Ivanová, A., Hromadová, K.: Deutsch für medizinische Berufe. Bratislava: Univerzita Komenského v Bratislave 2013. 262 p. ISBN 978-80-223-3400-6 Wortberg, Ch.: Menschen im Beruf – Medizin B2/C1, Kursbuch mit Audio-CD. Max Hueber Verlag 2016. 152 p. ISBN 9783197011905					
<b>Languages necessary to complete the course:</b> German, Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 71					
A	B	C	D	E	FX
80,28	16,9	1,41	1,41	0,0	0,0
<b>Lecturers:</b> PhDr. Tomáš Hamar, PhD., Mgr. Katarína Hromadová, PhD., Ing. Mgr. Erika Jurišová, PhD., Ing. Janka Bábelová, PhD., Mgr. Radoslav Ďurajka, PhD., Mgr. Lucia Lauková, PhD., Mgr. Zuzana Motešická, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚCJ/L-S-VL-146-4/19	<b>Course title:</b> German Language 2
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚCJ/L-S-VL-145-4/19 - German Language 1	
<b>Course requirements:</b> 100% attendance at the practicals, 2 written tests: one midterm (50 points, makes 15% of the assessment of the written part of the exam) and one exam test (100 points, makes 85% of the assessment of the written part of the exam). Oral part of the exam – discussion on a selected professional topic. Test assessment: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall grade (minimum of 60%) is determined by the weighted average of the grades obtained in the midterm (15%) and exam (85%) test and the result of the oral part of the exam.	
<b>Learning outcomes:</b> Knowledge: Acquisition of professional vocabulary from individual medical fields; deepening of knowledge in the field of morphology of a foreign language. Correct use of syntax when preparing lectures, papers and presentations. Skills: Language competence enabling the highest possible level of obtaining information and knowledge from foreign language sources; written and oral presentation of own knowledge and opinions in a foreign language; ability to communicate with the patient; ability to understand oral speech, lectures on professional medical topics.	
<b>Class syllabus:</b> Orthopaedics - the impact of lifestyle, past tenses. Rheumatology - symptoms and causes of disease, infinitive constructions. Paediatrics - basic childhood diseases, reflexive pronouns. Internal medicine - history of medicine, acute appendicitis, defining technical terms. Neurology - nervous system and diseases, suffixes. Physiology - anatomy and function of the heart and liver, blood pressure, compound nouns. Pharmacology - indication of drugs, placebo effect, modal verbs. Otorhinolaryngology - hearing disorders, verb prefixes. Surgery - basic surgical procedures and instruments, present participle. Diabetology - disease manifestations and lifestyle modification,	

antonyms. Psychology - stress and its regulation, discussion. Alternative medicine - supportive treatment methods, presentation techniques.					
<b>Recommended literature:</b> Ivanová, A., Hromadová, K.: Deutsch für medizinische Berufe. Bratislava: Univerzita Komenského v Bratislave 2013. 262 p. ISBN 978-80-223-3400-6 Wortberg, Ch.: Menschen im Beruf – Medizin B2/C1, Kursbuch mit Audio-CD. Max Hueber Verlag 2016. 152 p. ISBN 9783197011905					
<b>Languages necessary to complete the course:</b> German, Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 121					
A	B	C	D	E	FX
95,04	3,31	1,65	0,0	0,0	0,0
<b>Lecturers:</b> PhDr. Tomáš Hamar, PhD., Mgr. Katarína Hromadová, PhD., Ing. Mgr. Erika Jurišová, PhD., Ing. Janka Bábelová, PhD., Mgr. Radoslav Ďurajka, PhD., Mgr. Lucia Lauková, PhD., Mgr. Zuzana Motešická, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚCJ/L-S-VL-146-5/19	<b>Course title:</b> German Language 2
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚCJ/L-S-VL-145-5/19 - German Language 1	
<b>Course requirements:</b> 100% attendance at the practicals, 2 written tests: one midterm (50 points, makes 15% of the assessment of the written part of the exam) and one exam test (100 points, makes 85% of the assessment of the written part of the exam). Oral part of the exam – discussion on a selected professional topic. Test assessment: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall grade (minimum of 60%) is determined by the weighted average of the grades obtained in the midterm (15%) and exam (85%) test and the result of the oral part of the exam.	
<b>Learning outcomes:</b> Knowledge: Acquisition of professional vocabulary from individual medical fields; deepening of knowledge in the field of morphology of a foreign language. Correct use of syntax when preparing lectures, papers and presentations. Skills: Language competence enabling the highest possible level of obtaining information and knowledge from foreign language sources; written and oral presentation of own knowledge and opinions in a foreign language; ability to communicate with the patient; ability to understand oral speech, lectures on professional medical topics.	
<b>Class syllabus:</b> Orthopaedics - the impact of lifestyle, past tenses. Rheumatology - symptoms and causes of disease, infinitive constructions. Paediatrics - basic childhood diseases, reflexive pronouns. Internal medicine - history of medicine, acute appendicitis, defining technical terms. Neurology - nervous system and diseases, suffixes. Physiology - anatomy and function of the heart and liver, blood pressure, compound nouns. Pharmacology - indication of drugs, placebo effect, modal verbs. Otorhinolaryngology - hearing disorders, verb prefixes. Surgery - basic surgical procedures and instruments, present participle. Diabetology - disease manifestations and lifestyle modification,	



antonyms. Psychology - stress and its regulation, discussion. Alternative medicine - supportive treatment methods, presentation techniques.					
<b>Recommended literature:</b> Ivanová, A., Hromadová, K.: Deutsch für medizinische Berufe. Bratislava: Univerzita Komenského v Bratislave 2013. 262 p. ISBN 978-80-223-3400-6 Wortberg, Ch.: Menschen im Beruf – Medizin B2/C1, Kursbuch mit Audio-CD. Max Hueber Verlag 2016. 152 p. ISBN 9783197011905					
<b>Languages necessary to complete the course:</b> German, Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 10					
A	B	C	D	E	FX
90,0	10,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> PhDr. Tomáš Hamar, PhD., Mgr. Katarína Hromadová, PhD., Ing. Mgr. Erika Jurišová, PhD., Ing. Janka Bábelová, PhD., Mgr. Radoslav Ďurajka, PhD., Mgr. Lucia Lauková, PhD., Mgr. Zuzana Motešická, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-157-4/25	<b>Course title:</b> Global Social Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Method of education: Hybrid (Virtual + Field surveys)	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the lectures and collaborative meetings Final exam: Project-based evaluation: Team presentations of intervention prototypes	
<b>Learning outcomes:</b> Knowledge: <ul style="list-style-type: none"> <li>• Understand social determinants of health in a global context.</li> <li>• Identify systemic healthcare barriers and policies in relation to specific public health challenges.</li> <li>• Compare healthcare policies addressing special public health issues across countries</li> </ul> Skills: <ul style="list-style-type: none"> <li>• Analyze and interpret data and evidence related to specific public health challenges across diverse population groups</li> <li>• Conduct interviews with the healthcare, social, and public health experts.</li> <li>• Develop cross-cultural communication skills in global health contexts.</li> <li>• Design culturally sensitive interventions for public health challenges</li> <li>• Collaborate in interdisciplinary teams across different health systems</li> </ul>	
<b>Class syllabus:</b> Global Social Medicine (GLOBSMED) is an innovative pilot course developed through collaboration between the Faculty of Medicine Comenius University in Bratislava (FM CU) and the University Medical Centre Groningen (UMCG). In this course, students from both institutions work directly and closely together in a dynamic, transnational learning environment. The course focuses on global health challenges, such as homelessness as a social determinant of health, the organization of healthcare and health systems in Slovakia and the Netherlands, and the comparison of prevention and management of specific non-communicable diseases in both countries.	

The students will learn through virtual lectures, interactive e-learning modules, and hands-on practical sessions that include fieldwork, stakeholder interviews, and interdisciplinary teamwork. By engaging with peers and experts from both institutions, students will acquire skills in cross-cultural communication, research, and intervention design. The collaborative nature of the course not only enriches the learning experience but also lays the groundwork for innovative, culturally sensitive solutions to public health challenges in our increasingly interconnected world.

**Lectures:**

- 1 Introduction to the course – Foundations and Principles
- 2 Social Determinants of Health and Healthy Aging – A Case Study Approach
- 3 Healthcare Access & Equity – Comparative Policy Analysis
- 4 Stakeholder Engagement & Research Methods
- 5 Intervention Design & Feasibility Assessment
- 6 Collaborative Team Presentations – Solutions & impact assessment

**Recommended literature:**

Kostičová, M. a kol: Social Medicine. Bratislava: Comenius University, 2015. -ISBN 978-80-223-3935-3.

ETHOS. Typology fo homelessness FEANTSA <https://www.feantsa.org/download/en-16822651433655843804.pdf>

Glasgow, R. E., Harden, S. M., Gaglio, B., Rabin, B., Smith, M. L., Porter, G. C., ... & Estabrooks, P. A. (2019). RE-AIM planning and evaluation framework: adapting to new science and practice with a 20-year review. *Frontiers in public health*, 7, 64. It is open access article

Springer, A. E., & Evans, A. E. (2016). Assessing environmental assets for health promotion program planning: a practical framework for health promotion practitioners. *Health promotion perspectives*, 6(3), 111. It is open access article

Eldredge, L. Kay Bartholomew, et al. Planning health promotion programs: an intervention mapping approach. John Wiley & Sons, 2016. I don't know whether this book is available in your university library, but this is a very good book.

**Languages necessary to complete the course:**

Slovak and English

**Notes:**

Max 12 students (4th and 5th year). Good Slovak and English language skills (B2-C1)

**Past grade distribution**

Total number of evaluated students: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** MUDr. Hamid Ur Rahman Himat, doc. MUDr. Michaela Kostičová, PhD., MPH

**Last change:** 23.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-157-5/25	<b>Course title:</b> Global Social Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Method of education: Hybrid (Virtual + Field surveys)	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the lectures and collaborative meetings Final exam: Project-based evaluation: Team presentations of intervention prototypes	
<b>Learning outcomes:</b> Knowledge: <ul style="list-style-type: none"> <li>• Understand social determinants of health in a global context.</li> <li>• Identify systemic healthcare barriers and policies in relation to specific public health challenges.</li> <li>• Compare healthcare policies addressing special public health issues across countries</li> </ul> Skills: <ul style="list-style-type: none"> <li>• Analyze and interpret data and evidence related to specific public health challenges across diverse population groups</li> <li>• Conduct interviews with the healthcare, social, and public health experts.</li> <li>• Develop cross-cultural communication skills in global health contexts.</li> <li>• Design culturally sensitive interventions for public health challenges</li> <li>• Collaborate in interdisciplinary teams across different health systems</li> </ul>	
<b>Class syllabus:</b> Global Social Medicine (GLOBSMED) is an innovative pilot course developed through collaboration between the Faculty of Medicine Comenius University in Bratislava (FM CU) and the University Medical Centre Groningen (UMCG). In this course, students from both institutions work directly and closely together in a dynamic, transnational learning environment. The course focuses on global health challenges, such as homelessness as a social determinant of health, the organization of healthcare and health systems in Slovakia and the Netherlands, and the comparison of prevention and management of specific non-communicable diseases in both countries.	

The students will learn through virtual lectures, interactive e-learning modules, and hands-on practical sessions that include fieldwork, stakeholder interviews, and interdisciplinary teamwork. By engaging with peers and experts from both institutions, students will acquire skills in cross-cultural communication, research, and intervention design. The collaborative nature of the course not only enriches the learning experience but also lays the groundwork for innovative, culturally sensitive solutions to public health challenges in our increasingly interconnected world.

**Lectures:**

- 1 Introduction to the course – Foundations and Principles
- 2 Social Determinants of Health and Healthy Aging – A Case Study Approach
- 3 Healthcare Access & Equity – Comparative Policy Analysis
- 4 Stakeholder Engagement & Research Methods
- 5 Intervention Design & Feasibility Assessment
- 6 Collaborative Team Presentations – Solutions & impact assessment

**Recommended literature:**

Kostičová, M. a kol: Social Medicine. Bratislava: Comenius University, 2015. -ISBN 978-80-223-3935-3.

ETHOS. Typology fo homelessness FEANTSA <https://www.feantsa.org/download/en-16822651433655843804.pdf>

Glasgow, R. E., Harden, S. M., Gaglio, B., Rabin, B., Smith, M. L., Porter, G. C., ... & Estabrooks, P. A. (2019). RE-AIM planning and evaluation framework: adapting to new science and practice with a 20-year review. *Frontiers in public health*, 7, 64. It is open access article

Springer, A. E., & Evans, A. E. (2016). Assessing environmental assets for health promotion program planning: a practical framework for health promotion practitioners. *Health promotion perspectives*, 6(3), 111. It is open access article

Eldredge, L. Kay Bartholomew, et al. Planning health promotion programs: an intervention mapping approach. John Wiley & Sons, 2016. I don't know whether this book is available in your university library, but this is a very good book.

**Languages necessary to complete the course:**

Slovak and English

**Notes:**

Max 12 students (4th and 5th year). Good Slovak and English language skills (B2-C1)

**Past grade distribution**

Total number of evaluated students: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** MUDr. Hamid Ur Rahman Himat, doc. MUDr. Michaela Kostičová, PhD., MPH

**Last change:** 23.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.GPK2/L-S-VL-125-4/19	<b>Course title:</b> Gynaecological Oncology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Form of the course: combined	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 80% attendance at the practicals 1 online MS Forms-test with 40 questions – minimal 60% of correct answers Test evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: <59 % Medical Report preparing	
<b>Learning outcomes:</b> Knowledge: Basics of tumor growth biology, differential diagnosis of benign and malignant tumors of female genitalia and breasts, their classification, principles and goals of their surgical treatment, postoperative care, follow-up, dispensarization of women with genetic risk of cancer, prophylactic measures in women with high genetic risk of ovarian and breast malignancies. Skills: Pap smear from the cervix uteri, basics of colposcopy, basics of ultrasound imaging of woman's genitalia, principles of lymphatic mapping of the breast, principles of fine-needle and large core-needle biopsies, possibility in assistance in oncogynecological and breast surgeries in OP theatre.	
<b>Class syllabus:</b> Basics of tumor growth biology, benign tumors of female genital organs and breasts, malignant tumors of female genital organs and breasts, their classification, principles and methods of their diagnosis, basics of their surgical treatment, postoperative care, follow up, dispensarization of women with genetic risk of cancer, prophylactic measures in women at high genetic risk for ovarian and breast cancer.	
<b>Recommended literature:</b> K. Pohlodek: Základy mamológie UK Bratislava, 2014. 96 s. <a href="https://www.fmed.uniba.sk/fileadmin/lf/sluzby/akademicka_kniznica/PDF/Elektronicke_knihy_LF_UK/Zaklady_mamologie.pdf">https://www.fmed.uniba.sk/fileadmin/lf/sluzby/akademicka_kniznica/PDF/Elektronicke_knihy_LF_UK/Zaklady_mamologie.pdf</a>	

K. Pohlodek: Premalígne lézie prsníkov. UK Bratislava, 2014. 102 s. <a href="https://www.fmed.uniba.sk/fileadmin/lf/sluzby/akademicka_kniznica/PDF/Elektronicke_knihy_LF_UK/Premaligne_lezie_prsnikov.pdf">https://www.fmed.uniba.sk/fileadmin/lf/sluzby/akademicka_kniznica/PDF/Elektronicke_knihy_LF_UK/Premaligne_lezie_prsnikov.pdf</a> P. Šuška a kolektív: Základy onkogynekológie. UK Bratislava, 2019. 150 s.					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 120					
A	B	C	D	E	FX
37,5	53,33	6,67	2,5	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Kamil Pohlodek, PhD., MPH, MUDr. Petra Pšenková, PhD., MUDr. Mgr. Rami Saade, PhD., MUDr. Martin Foltín, PhD., MUDr. Júlia Hederlingová, PhD., MUDr. Jozef Španka					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.GPK2/L-S-VL-125-5/19	<b>Course title:</b> Gynaecological Oncology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Form of the course: combined	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 80% attendance at the practicals 1 online MS Forms-test with 40 questions – minimal 60% of correct answers Test evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: <59 % Medical Report preparing	
<b>Learning outcomes:</b> Knowledge: Basics of tumor growth biology, differential diagnosis of benign and malignant tumors of female genitalia and breasts, their classification, principles and goals of their surgical treatment, postoperative care, follow-up, dispensarization of women with genetic risk of cancer, prophylactic measures in women with high genetic risk of ovarian and breast malignancies. Skills: Pap smear from the cervix uteri, basics of colposcopy, basics of ultrasound imaging of woman's genitalia, principles of lymphatic mapping of the breast, principles of fine-needle and large core-needle biopsies, possibility in assistance in oncogynecological and breast surgeries in OP theatre.	
<b>Class syllabus:</b> Basics of tumor growth biology, benign tumors of female genital organs and breasts, malignant tumors of female genital organs and breasts, their classification, principles and methods of their diagnosis, basics of their surgical treatment, postoperative care, follow up, dispensarization of women with genetic risk of cancer, prophylactic measures in women at high genetic risk for ovarian and breast cancer.	
<b>Recommended literature:</b> K. Pohlodek: Základy mamológie UK Bratislava, 2014. 96 s. <a href="https://www.fmed.uniba.sk/fileadmin/lf/sluzby/akademicka_kniznica/PDF/Elektronicke_knihy_LF_UK/Zaklady_mamologie.pdf">https://www.fmed.uniba.sk/fileadmin/lf/sluzby/akademicka_kniznica/PDF/Elektronicke_knihy_LF_UK/Zaklady_mamologie.pdf</a> K. Pohlodek: Premalígne lézie prsníkov. UK Bratislava, 2014. 102 s.	



<a href="https://www.fmed.uniba.sk/fileadmin/lf/sluzby/akademicka_kniznica/PDF/Elektronicke_knihy_LF_UK/Premaligne_lezie_prsnikov.pdf">https://www.fmed.uniba.sk/fileadmin/lf/sluzby/akademicka_kniznica/PDF/Elektronicke_knihy_LF_UK/Premaligne_lezie_prsnikov.pdf</a> P. Šuška a kolektív: Základy onkogynekológie. UK Bratislava, 2019. 150 s.					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 33					
A	B	C	D	E	FX
39,39	51,52	6,06	3,03	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Kamil Pohlodek, PhD., MPH, MUDr. Martin Foltín, PhD., MUDr. Júlia Hederlingová, PhD., MUDr. Petra Pšenková, PhD., MUDr. Mgr. Rami Saade, PhD., MUDr. Jozef Španka					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## STATE EXAM DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.GPK1/L-VL-ŠS-1/15	<b>Course title:</b> Gynaecology and Obstetrics
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 11., 12..	
<b>Educational level:</b> I.II.	
<b>State exam syllabus:</b>	
<b>Last change:</b>	
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH	

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.GPK1/L-S-VL-105/20	<b>Course title:</b> Gynaecology and Obstetrics - practice
<b>Educational activities:</b> <b>Type of activities:</b> practice <b>Number of hours:</b> <b>per week: per level/semester:</b> 80s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance on practicals	
<b>Learning outcomes:</b> Knowledge: o acquaintance with the day-to-day work at the gynaecological-obstetric department o acquaintance with pharmacological treatment in gynaecology and obstetrics o acquaintance with pre-operative and post-operative care by patient in gynaecology and obstetrics o acquaintance of knowledge of asepsis and antisepsis Practical skills: o to conduct 2 physiological labours o assistance by gynaecological and obstetrical surgeries o the management of the patient documentation in gynaecology and obstetrics o observing of the labour and puerperium	
<b>Class syllabus:</b> 1. acquaintance of the organisation of the work at the gynaecological and obstetrical department 2. under the supervision of older doctor work in a position of secondary doctor 3. the aquirement of practical skills in gynaecology and obstetrics with the main focus on conducting physiological labour, assistance by gynaecological and obstetrical surgeries and the admission and examination of gynaecological and obstetrical patient	
<b>Recommended literature:</b> Záhumenský, J. a kol.: Pôrodníctvo, vyd. Bratislava: A-medi management, 2022, 1248 s., ISBN 9788089797721 Rob, L. a kol.: Gynekologie. 3. dopl. a přeprac. vyd. Praha: Galén, 2019, 356 s. ISBN 978-80-7492-426-2 Šuška, P. a kol.: Vybrané kapitoly z gynekológie. 3. preprac. a dopl. vyd. Bratislava: Univerzita Komenského, 2017. 314 s. ISBN 978-80-223-4279-7 Hájek, Z. a kol. Porodnictví. 3. zcela dopl. a přeprac. vyd. Praha: Grada, 2014. 580 s. ISBN 978-80-247-4529-9	

Holomán, K. a kol.: Vybrané kapitoly z pôrodnictva. 3. preprac. a dopl. vyd. Bratislava: Univerzita Komenského, 2014. 344 s. ISBN 978-80-223-3579-9
<b>Languages necessary to complete the course:</b> slovak
<b>Notes:</b>
<b>Past grade distribution</b> Total number of evaluated students: 1261
ABS0
100,0
<b>Lecturers:</b> prof. MUDr. Miroslav Borovský, CSc., prof. MUDr. Jozef Záhumenský, PhD.
<b>Last change:</b> 28.05.2024
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.GPK1/L-S-VL-015/25	<b>Course title:</b> Gynaecology and Obstetrics 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 35s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the practicals - 1 written test (minimum 60% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> - anatomy and physiology of female genital tract, small pelvis , abdominal cavity and breast, - embryology and the congenital developmental disease of urogenital tract, - patophysiology, screening, diagnosis, clinical course and treatment of the inflammatory diseases of female genital tract, - family planning and contraception, - fertilization and the development of fertilised ovum, - physiological process of the pregnancy, labour and puerperium. <b>Skills:</b> - administration of the admission of the patient – taking history and communication, attendance on the morning rounds at the department, - basic gynaecological and obstetrical examination, - evaluation of the physiological and pathological cardiotokography, - the examination and evaluation of the basic microbiological smear, - the examination and evaluation of the functional vaginal cytology.	
<b>Class syllabus:</b> • Gynaecology: o The history of gynaecology and obstetrics o Anatomy of female genital tract # The anatomy of external and internal female genital tract # The development and congenital developmental abnormalities of female genital tract o Menstrual cycle - physiology and abnormalities	

<ul style="list-style-type: none"> <li>o Life periods in womans life</li> <li>o Examination methods in Gynaecology and Obstetrics</li> <li>o Sexual life of women and its abnormalities</li> <li>o Family planing and contraception</li> <li>o Inflammation of female genital tract</li> <li>• Obstetrics:</li> <li>o Physiological pregnancy</li> <li>o Puerperium</li> <li>o Vaginal labour</li> <li># Physiological labour - occipital presentation</li> <li># Breech position</li> <li># Complication of duration of labour</li> <li>o Risk and pathological pregnancy</li> <li>o Irregularities of fertilised ovum / Early pregnancy complication</li> <li>o Management of the fetus during pregnancy</li> </ul>																				
<p><b>Recommended literature:</b></p> <p>Záhumenský, J. a kol.: Pôrodnictvo, vyd. Bratislava: A-medi management, 2022, 1248 s., ISBN 9788089797721</p> <p>Rob, L. a kol.: Gynekologie. 3. dopl. a preprac. vyd. Praha: Galén, 2019, 356 s. ISBN 978-80-7492-426-2</p> <p>Šuška, P. a kol.: Vybrané kapitoly z gynekológie. 3. preprac. a dopl. vyd. Bratislava: Univerzita Komenského, 2017. 314 s. ISBN 978-80-223-4279-7</p> <p>Hájek, Z. a kol. Porodnictví. 3. zcela dopl. a preprac. vyd. Praha: Grada, 2014. 580 s. ISBN 978-80-247-4529-9</p> <p>Holomáň, K. a kol.: Vybrané kapitoly z pôrodnictva. 3. preprac. a dopl. vyd. Bratislava: Univerzita Komenského, 2014. 344 s. ISBN 978-80-223-3579-9</p>																				
<p><b>Languages necessary to complete the course:</b></p> <p>Slovak</p>																				
<p><b>Notes:</b></p>																				
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 0</p> <table border="1"> <thead> <tr> <th>A</th><th>ABS0</th><th>B</th><th>C</th><th>D</th><th>E</th><th>FX</th></tr> </thead> <tbody> <tr> <td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td></tr> </tbody> </table>							A	ABS0	B	C	D	E	FX	0,0	0,0	0,0	0,0	0,0	0,0	0,0
A	ABS0	B	C	D	E	FX														
0,0	0,0	0,0	0,0	0,0	0,0	0,0														
<p><b>Lecturers:</b> prof. MUDr. Miroslav Borovský, CSc., doc. MUDr. Peter Štencl, CSc., prof. MUDr. Jozef Záhumenský, PhD., doc. MUDr. Miroslav Korbeľ, CSc., doc. MUDr. Martin Redecha, PhD., doc. MUDr. Rastislav Sysák, PhD., MBA, prof. MUDr. Kamil Pohlodek, PhD., MPH, doc. MUDr. Martin Šimko, PhD., doc. MUDr. Alexandra Krištúfková, PhD., prof. MUDr. Vladimír Ferianec, PhD.</p>																				
<p><b>Last change:</b> 21.01.2025</p>																				
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>																				

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.GPK1/L-S-VL-016/25	<b>Course title:</b> Gynaecology and Obstetrics 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 35s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.GPK1/L-S-VL-015/25 - Gynaecology and Obstetrics 1	
<b>Course requirements:</b> - 100% attendance at the practicals - 1 written test (minimum 60% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> - Etiology, diagnosis and treatment of sterility and infertility - Etiology, diagnosis, clinical course and treatment of urogynaecological diseases - Etiology, diagnosis, clinical course and treatment of female genital tract tumors - Etiology, diagnosis, clinical course and treatment of child and adolescent gynaecological diseases - Theoretical knowledge about basic gynaecological and obstetric surgical procedures - Pathological pregnancy, labour and puerperium - Birth injuries – classification, management and complication <b>Skills:</b> - Assist by the physiological labour - Basic examination of patient with urogynaecological diseases - Basic examination of patient with female oncological disease - Basic examination of the gynaecological child or adolescent patient - Basic interpretation of oncytology (PAP smear) - Assist by small gynaecological surgeries (curettage, conisation, termination of pregnancy/evacuation of uterine cavity after incomplete I.trimester abortion)	
<b>Class syllabus:</b> • Gynaecology: o Endometriosis o Female genital tract tumors o Breast diseases o Irregular positions of female genital organs	

<ul style="list-style-type: none"> <li>o Infertile couple</li> <li>o Child and adolescent gynaecology</li> <li>o Gynaecological urology / urogynaecology</li> <li>o Emergencies in gynaecology</li> <li>o Basic gynaecology surgeries</li> <li>• Obstetrics: <ul style="list-style-type: none"> <li>o Irregular positions of fetus</li> <li>o Irregularities of birth mechanism, deflexion of the fetus head</li> <li>o Emergencies from side of fetus during the labour</li> <li>o Irregularities of the III. stage of the labour</li> <li>o Birth injuries</li> <li>o Pathology of puerperium</li> <li>o Emergencies in obstetrics / Maternal deaths</li> <li>o Basic obstetric surgeries</li> </ul> </li> </ul>						
<b>Recommended literature:</b> Záhumenský, J. a kol.: Pôrodnictvo, vyd. Bratislava: A-medi management, 2022, 1248 s., ISBN 9788089797721 Rob, L. a kol.: Gynekologie. 3. dopl. a přeprac. vyd. Praha: Galén, 2019, 356 s. ISBN 978-80-7492-426-2 Šuška, P. a kol.: Vybrané kapitoly z gynekológie. 3. preprac. a dopl. vyd. Bratislava: Univerzita Komenského, 2017. 314 s. ISBN 978-80-223-4279-7 Hájek, Z. a kol. Porodnictví. 3. zcela dopl. a přeprac. vyd. Praha: Grada, 2014. 580 s. ISBN 978-80-247-4529-9 Holomáň, K. a kol.: Vybrané kapitoly z pôrodnictva. 3. preprac. a dopl. vyd. Bratislava: Univerzita Komenského, 2014. 344 s. ISBN 978-80-223-3579-9						
<b>Languages necessary to complete the course:</b> Slovak						
<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Miroslav Borovský, CSc., doc. MUDr. Peter Štencl, CSc., prof. MUDr. Jozef Záhumenský, PhD., doc. MUDr. Miroslav Korbel', CSc., prof. MUDr. Kamil Pohlodek, PhD., MPH, doc. MUDr. Martin Šimko, PhD., doc. MUDr. Rastislav Sysák, PhD., MBA, doc. MUDr. Martin Redecha, PhD., prof. MUDr. Vladimír Ferianec, PhD., doc. MUDr. Alexandra Krištúfková, PhD.						
<b>Last change:</b> 21.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.GPK1/L-S-VL-017/25	<b>Course title:</b> Gynaecology and Obstetrics 3
<b>Educational activities:</b> <b>Type of activities:</b> seminar / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 18s / 54s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 4	
<b>Recommended semester:</b> 11., 12..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.GPK1/L-S-VL-016/25 - Gynaecology and Obstetrics 2 or LF.GPK1/L-S-VL-016/20 - Gynaecology and Obstetrics 2	
<b>Course requirements:</b> - 100% attendance on practicals and seminars State exam o practical part – administration of the medical report, taking history, examination of the patient, 2 additional practical questions theoretical part: 3 questions (in different topics of gynaecology and obstetrics)	
<b>Learning outcomes:</b> Knowledge: o theoretical knowledge about differential diagnosis and management of emergencies in gynaecology and obstetricsa o theoretical knowledge about maternofetal medicine o basics in differential diagnosis in gynaecology o theoretical basics in radiological methods used in gynaecology and obstetrics o the problems of marginal medical specialisation in the relation to the gynaecology and obstetrics o ethical aspects in gynaecology and obstetricsa o management and resuscitation of newborn Skills: o improvement in the assistance by the gynaecological and obstetrical surgeries o basic interpretation of the radiological findings in gynaecology and obstetrics o improvement in gynaecological and obstetrical propedeutics o management and resuscitation of newborn	
<b>Class syllabus:</b> During the practicals before the state exams medical students act as secondary doctors at the department. The aim is their improvement in the gynaecological and obstetrical propedeutics, differential diagnosis, management of patient – conservative and surgical way of management in gynaecology and obstetrics. The advanced radiological methods used in gynaecology and obstetrics are demonstrated. Medical students assist at the operation theatre at gynaecological	

and obstetrical surgeries. They attend on the day-to-day practice on the outpatient department and acquire knowledge in the subspecialised fields of gynaecology and onstetrics.						
<b>Recommended literature:</b> Záhumenský, J. a kol.: Pôrodnictvo, vyd. Bratislava: A-medi management, 2022, 1248 s., ISBN 9788089797721 Rob, L. a kol.: Gynekologie. 3. dopl. a přeprac. vyd. Praha: Galén, 2019, 356 s. ISBN 978-80-7492-426-2 Šuška, P. a kol.: Vybrané kapitoly z gynekológie. 3. preprac. a dopl. vyd. Bratislava: Univerzita Komenského, 2017. 314 s. ISBN 978-80-223-4279-7 Hájek, Z. a kol. Porodnictví. 3. zcela dopl. a přeprac. vyd. Praha: Grada, 2014. 580 s. ISBN 978-80-247-4529-9 Holomáň, K. a kol.: Vybrané kapitoly z pôrodnictva. 3. preprac. a dopl. vyd. Bratislava: Univerzita Komenského, 2014. 344 s. ISBN 978-80-223-3579-9						
<b>Languages necessary to complete the course:</b> Slovak						
<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Miroslav Borovský, CSc., doc. MUDr. Rastislav Sysák, PhD., MBA, doc. MUDr. Peter Štencl, CSc., doc. MUDr. Miroslav Korbeľ, CSc., doc. MUDr. Martin Redecha, PhD., prof. MUDr. Kamil Pohlodek, PhD., MPH, prof. MUDr. Jozef Záhumenský, PhD., prof. MUDr. Vladimír Ferianec, PhD., doc. MUDr. Martin Šimko, PhD., doc. MUDr. Alexandra Krištúfková, PhD., MUDr. Zuzana Nižňanská, PhD.						
<b>Last change:</b> 21.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚHE/L-S-VL-018/25	<b>Course title:</b> Histology and Embryology 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 28s / 38s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 6	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> The student is evaluated on the basis of his/her academic performance during the semester (control questions, written partial tests, independent work tasks, drawing and description of observed histological specimens) and participation in obligatory forms of study. Attendance at lectures is recommended, as the partial tests also contain information from the lectures. Conditions for obtaining credits are successful completion of partial tests with an overall average of 70% (or, if necessary, passing a repeat full semester test with a minimum of 70%) and 100% attendance at the practical exercises (1 excused absence will be tolerated). If the student fails to meet the requirements, he/she may take an oral examination at a date set by the Head of the Institute during the examination period. Grade average of partial tests or repeat full semester test: A: 100 - 95 %, B: 94 - 88 %, C: 87 - 80 %, D: 79 - 75 %, E: 74 - 70 %, Fx: 69 % and less.	
<b>Learning outcomes:</b> Knowledge: At the end of the course students should be able to: <ol style="list-style-type: none"> <li>1. Define and use the terms necessary to describe tissues (i.e. cytology and general histology).</li> <li>2. Theoretically understand the basic steps of histological technique, from the collection of tissues to the fixation of tissues and the examination of histological specimens.</li> <li>3. Identify tissue types, cells and components of the extracellular matrix in various organs of the human body.</li> <li>4. Correlate the microscopic structure of tissues with their function.</li> <li>5. Describe and explain fertilisation, early embryonic development and the progression of embryogenesis from fertilisation to the end of week 8.</li> <li>6. Lead a discussion on these topics with regard to medical applications.</li> </ol> Skills: At the end of the course students should be able to: <ol style="list-style-type: none"> <li>1. Use the light microscope to identify and systematically describe various cell types and other microscopic structures within human tissues.</li> <li>2. Identify basic cellular and subcellular structures from electron micrographs.</li> </ol>	
<b>Class syllabus:</b> Lectures:	

1. Introduction to the study of histology. History and current status of histology in the curriculum of general medical studies. Histological technique and its relevance to practice.
2. Cytomorphology. Electron microscopy. Description of selected specialised cells.
3. Introduction to the study of human tissues. Characteristics and origin of epithelial tissue. Classification of epithelial tissue. Covering and lining epithelia and glandular epithelia.
4. Connective tissue: Connective tissue proper. Functional histology of connective tissue cells and their clinical significance. Classification of connective tissue proper types. Mononuclear phagocyte system.
5. Connective tissue: Cartilage, bone and ossification. Microscopic structure of the joint, synovial membrane and articular cartilage.
6. Connective tissue: Blood and hemopoiesis. Morphology of formed blood elements. Microscopic structure of bone marrow.
7. Muscle tissue. Functional histology of skeletal, smooth and cardiac muscle.
8. Nervous tissue. Morphology of neurons and neuroglial cells. Structure of the grey and white matter of the central nervous system.
9. Introduction to the study of embryology. History and current status of embryology in the curriculum of general medical studies.
10. Fertilisation. Zygote cleavage and blastocyst development. Implantation of the blastocyst and decidual reaction of the uterine mucosa.
11. Development of extraembryonic structures (development of the amniotic cavity, yolk sac, chorionic cavity and chorion). Multiple gestation and fetal membranes of twins.
12. Clinical embryology and assisted reproduction. Teratology and teratogens. Current options for prenatal diagnosis.
13. Embryogenesis (3rd and 4th week of development) and formation of the body of the embryo. Somites. Development of the notochord and neural tube. Overview of the derivatives of the germ layers.
14. Development and functional morphology of the placenta. Placental barrier.

#### Practical exercises:

Introduction to practical exercises from histology and embryology. Light and electron microscope. Principles of histological technique. Study of the cell by light and electron microscopy. Introduction to tissues. Covering and lining epithelia. Glandular epithelia. Connective tissues proper. Cartilage, bone and ossification. Blood. Blood elements, differential blood count. Blood smear stained by the Pappenheim method. Muscle tissue. Nervous tissue. Histochemical and immunohistochemical methods for the demonstration of selected structures.

#### **Recommended literature:**

- Balko J, Tonar Z, Varga I. Memorix histologie. 3. vydání. Praha: Triton, 2021. 555 s. ISBN 978-80-7553-874-1.
- Domoráková I. a kol. Základy histológie I. Učebnica a mikroskopický atlas buniek a tkanív. Košice: UPJŠ, 2023. 202 s. ISBN 978-80-574-0226-8. Online na <https://doi.org/10.33542/ZH1-0226-8>
- Mescher A. Junqueirovy základy histologie. 14. vydání, 1. české. Praha: Galén, 2018, 558 s. ISBN 978-80-7492-324-1.
- Varga I, Zbynek T. Klinicky orientovaná embryológia. S. 110 – 153. In: Záhumenský J (Ed). Pôrodnictvo. Bratislava: Amedi, 2022. 1246 s. ISBN 978-80-89797-72-1.
- Sadler TW. Langmannova lékařská embryologie. Preklad 10. vyd. Praha: Grada, 2011, 414 s. ISBN 978-80-2472-640-3.
- Kapeller K, Pospíšilová V. Embryológia človeka. Martin: Osveta, 2001, 370 s. ISBN 8080630720.

<b>Languages necessary to complete the course:</b> Slovak						
<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. RNDr. Ivan Varga, PhD., MUDr. Paulína Gálfiová, PhD., MVDr. Ján Líška, CSc., MUDr. Mgr. Michal Miko, PhD., MUDr. Renáta Mikušová, PhD., MUDr. Simona Polakovičová, PhD., MUDr. Vanda Rísová, PhD., RNDr. Mária Kleinová, PhD., Mgr. Miroslava Juríková, PhD., MUDr. Martin Klein, PhD., MUDr. Mária Lorencová, PhD., doc. RNDr. Marianna Danková, PhD., MUDr. Mgr. Rami Saade, PhD.						
<b>Last change:</b> 23.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚHE/L-S-VL-019/17	<b>Course title:</b> Histology and Embryology 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 28s / 38s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 7	
<b>Recommended semester:</b> 3.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚHE/L-S-VL-018/16 - Histology and Embryology 1 or LF.ÚHE/L-S-VL-018/25 - Histology and Embryology 1 and LF.ÚLBG/L-S-VL-007/16 - Biology and Human Genetics 2	
<b>Course requirements:</b> <p>The student is evaluated on the basis of his/her academic performance during the semester (control questions, written partial tests, independent work tasks, drawing and description of observed histological specimens) and participation in obligatory forms of study. Attendance at lectures is recommended, as the partial tests also contain information from the lectures.</p> <p>Conditions for obtaining credits are successful completion of partial tests with an overall average of 70% (or, if necessary, passing a repeat full semester test with a minimum of 70%) and 100% attendance at the practical exercises (1 excused absence will be tolerated). If the student fails to meet the requirements, he/she may take an oral examination at a date set by the Head of the Institute during the examination period.</p> <p>Grade average of partial tests or repeat full semester test: A: 100 - 95 %, B: 94 - 88 %, C: 87 - 80 %, D: 79 - 75 %, E: 74 - 70 %, Fx: 69 % and less.</p> <p>Final examination requires knowledge of Histology and Embryology 1 and Histology and Embryology 2 and consists of three parts:</p> <ul style="list-style-type: none"> <li>• Multiple choice test with a minimum of 70%.</li> <li>• Practical part consists of the evaluation of 10 histological slides, in which the student must correctly identify at least 7 organs and their staining.</li> <li>• Theoretical (oral) part in which the student has to answer one question from each of the following three sections 1) histological technique, cytomorphology and general histology (tissues); 2) microscopic structure of human organs; 3) human embryology.</li> </ul> <p>Failure to pass any part of the final exam is graded Fx. If the student fails the test or the practical part of the exam on the third attempt, he/she has a chance to be admitted to the theoretical (oral) part of the exam.</p>	
<b>Learning outcomes:</b> <p>Knowledge: At the end of the course students should be able to:</p> <ol style="list-style-type: none"> <li>1. Define and use terms necessary to describe the microscopic structure of human organs (i.e. special histology).</li> </ol>	

2. Correlate the microscopic structure of organs with their function.
3. Have basic knowledge of intrauterine development of the individual from fertilisation, through the formation of germ layers and organogenesis, to birth. The course provides valuable information on the mechanism of congenital developmental defects.
4. Describe and explain human organogenesis, with particular emphasis on the anatomical structure and variability of the organs of the human body from the perspective of their prenatal development.
5. Lead a discussion on these topics with regard to medical applications.

Skills: At the end of the course students should be able to:

1. Use the light microscope to identify and systematically describe human organs with a specific focus on the craniofacial region.
2. Draw and describe simplified diagrams of the microscopic structure of organs.

### **Class syllabus:**

Lectures:

1. Microscopic structure of the heart and blood vessels. Types of capillaries. Development of the human cardiovascular system. Fetal blood circulation and its changes after birth.
2. Microscopic structure of the digestive tube - from the oral cavity to the rectum.
3. Development of the primitive gut and its derivatives. Overview of the microscopic structure of the liver and pancreas.
4. Functional histology of lymphoid organs. Thymus, bone marrow, spleen, lymph nodes and tonsils. MALT (Mucosa associated lymphoid tissue).
5. Development and microscopic structure of the respiratory system. Self-cleaning of the respiratory system. Blood-air barrier.
6. Development of the urinary system. Microscopic structure of the kidney and the urinary tract.
7. Development of the male and female reproductive systems.
8. Microscopic structure of the testis and clinical aspects of sperm development.
9. Microscopic structure of the female reproductive system. Ovarian and menstrual cycle.
10. Pharyngeal region of the embryo and its derivatives. Development of the face and anterior neck.
- Microscopic structure of endocrine organs.
11. Overview of the microscopic structure of the central nervous system. Structure of the cerebral cortex, cerebellum, spinal cord and peripheral nervous system.
12. Neural tube and the development of the central and peripheral nervous system. Neural crest and its derivatives.
13. Development of the skin and skin appendages. Development of the skull, vertebral column and limbs. Overview of the microscopic structure of the skin.
14. Overview of the microscopic structure and development of human sensory organs.

Practical exercises:

Microscopic structure of the heart and blood vessels. Types of capillaries Microscopic structure of lymphoid organs. Microscopic structure of endocrine glands, hypothalamo-hypophyseal system. Microscopic structure of the oral cavity and tongue, taste buds. General microscopic structure of the wall of the digestive tract. Microscopic structure of the liver, pancreas and salivary glands. Ultrastructure of the hepatocyte. Dissé's space and sinusoids of the liver. Microscopic structure of the exocrine and endocrine parts of the pancreas. . Microscopic structure of the respiratory system. Microscopic structure of the kidney and the urinary tract. Filtration barrier of the kidney, juxtaglomerular apparatus. Microscopic structure of the male reproductive system. Testis and spermiogenesis. Glands associated with the male reproductive system. Penis a morphological basis of erection. Microscopic structure of the female reproductive system. Ovarian and menstrual cycle. Microscopic structure of the yellow body. Microscopic structure of selected organs during pregnancy (placenta, fetal membranes, umbilical cord). Microscopic structure of the brain, spinal

cord and peripheral nervous system. Microscopic structure of the sensory organs. Microscopic structure of the skin and its derivatives.					
<b>Recommended literature:</b> Balko J, Tonar Z, Varga I. Memorix histologie. 3. vydání. Praha: Triton, 2021. 555 s. ISBN 978-80-7553-874-1. Domoráková I. a kol. Základy histologie II. Učebnica a atlas mikroskopické anatómie orgánov. Košice: UPJŠ, 2023. 433 s. ISBN 978-80-574-0226-8. Online <a href="https://doi.org/10.33542/ZH2-0267-1">https://doi.org/10.33542/ZH2-0267-1</a> Mescher A. Junqueiraovy základy histologie. 14. vydání, 1. české. Praha: Galén, 2018, 558 s. ISBN 978-80-7492-324-1. Sadler TW. Langmannova lékařská embryologie. Preklad 10. vyd. Praha: Grada, 2011, 414 s. ISBN 978-80-2472-640-3. Kapeller K, Pospíšilová V. Embryológia človeka. Martin: Osveta, 2001, 370 s. ISBN 8080630720.					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 2688					
A	B	C	D	E	FX
37,43	19,08	18,86	10,94	8,41	5,28
<b>Lecturers:</b> prof. RNDr. Ivan Varga, PhD., MUDr. Paulína Gálfiová, PhD., MVDr. Ján Líška, CSc., MUDr. Renáta Mikušová, PhD., MUDr. Simona Polakovičová, PhD., MUDr. Vanda Rísová, PhD., MUDr. Mgr. Michal Miko, PhD., doc. RNDr. Marianna Danková, PhD., RNDr. Mária Kleinová, PhD., Mgr. Miroslava Juríková, PhD., MUDr. Martin Klein, PhD., MUDr. Mária Lorencová, PhD., MUDr. Mgr. Rami Saade, PhD.					
<b>Last change:</b> 27.05.2024					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚH/L-S-VL-020/19	<b>Course title:</b> Hygiene
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2 and LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> - 100% attendance at the practicals - 1 written test (minimum 60% of correct answers) Final exam: - oral exam: 3 questions, the student has 20 minutes to prepare Test evaluation: A: 91 – 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % – 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: - on the environmental impact on population health status - on the health protection and health promotion of the population and the individual - on the principles of disease prevention - on basic legislation in this area Skills: - to know how to use the basic methods of monitoring internal and external environmental factors and the health status of population groups - to examine the nutritional status and formulate the necessary corrections to protect the health and to prevent disease of individuals and population groups - to communicate with the public on environmental, behavioral, and psychosocial factors and health at an appropriate level - to cooperate with public health managers - to work independently in the field of health counseling - ability to implement the obtained results into the practice of general practitioner and/or pediatrician	
<b>Class syllabus:</b> Syllabus: Living conditions and health. Education, training, and lifestyle concerning health. The environment and its chemical, physical, biological, and psychosocial factors. Indoor and outdoor air pollution and morbidity. Water and morbidity. Hazardous waste. Health risks of ionizing and non-ionizing	

<p>radiation. Environmental noise. Urbanization and housing concerning health. Nutritional health risks. Unconventional nutrition. Self-assessment of nutrition and nutritional status. Public health counseling. Xenobiotics. Environmental factors concerning infectious diseases. Environment, lifestyle and chronic diseases. Basics of psychohygiene. Alcoholism, drug addiction, and prevention. Age and physiological peculiarities in primary prevention. Hygiene in the educational process. Environmental risks for children and young people. Work and health, risk factors. Physical and biological factors in the work environment. Toxic substances in the work environment. Work-related health impairment, categorization of workplaces. Work and rest regimen and occupational disease prevention. Hospital hygiene, outpatient facilities, and inpatient wards. Nosocomial infections. Hygiene documentation, current legislation. Health risk assessment and health impact assessment. The role of hygiene in disasters (natural and technological disasters, war conflicts, epidemics), problems of alternative accommodation, water supply, and nutrition.</p> <p>Lectures: Introduction to Hygiene; Principles of Environmental Health, Risk Assessment; Preventive Occupational Health and Safety, Emergencies; Nutrition in Public Health and Food Safety Hygiene of Children and Youth</p> <p>Practicals: Principles of the Basic Environmental Factors; Evaluation of Nutritional Status; Hospital Hygiene; Prevention of Cardiovascular Diseases; Radiation and Health Hazards, Evaluation of Hospital Hygiene; Estimation of Cardiovascular Risk</p>																	
<p><b>Recommended literature:</b></p> <p>Jurkovičová, J. a kol. Hygiena. Bratislava, UK, 2020. 481 s. ISBN 978-80-223-4905-5.</p> <p>Jurkovičová, J. a kol.: Praktické cvičenia z hygieny. Bratislava: UK, 2010. 331 s. Skriptá. ISBN 978-80-223-2816-6.</p> <p>Ševčíková Ľ. and contributors: Hygiene – Environmental Medicine. Bratislava: Comenius University, 2011. 322 s. ISBN 978-80-223-2900-2.</p> <p>Ševčíková Ľ. and contributors: Environmental Health – Hygiene. Bratislava : Comenius University, 2015. 253 s. ISBN 978-80-223-3930-8</p> <p>Babjaková J., Sekretár S. Nutrition and Food Safety in Public Health. Bratislava: Comenius University, 2015. 136 p. ISBN 978-80-223-3932-2</p> <p>Fabiánová, E., Bátora, I. Occupational Health and Toxicology. 1st Ed. Bratislava: Comenius University, 2015. 146 p. ISBN 978-80-223-3931-5.</p>																	
<p><b>Languages necessary to complete the course:</b></p> <p>Slovak</p>																	
<p><b>Notes:</b></p> <p>The course is offered only in the summer semester.</p>																	
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 1768</p> <table border="1"> <thead> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>FX</th></tr> </thead> <tbody> <tr> <td>56,22</td><td>19,63</td><td>12,5</td><td>6,79</td><td>4,3</td><td>0,57</td></tr> </tbody> </table>						A	B	C	D	E	FX	56,22	19,63	12,5	6,79	4,3	0,57
A	B	C	D	E	FX												
56,22	19,63	12,5	6,79	4,3	0,57												
<p><b>Lecturers:</b> prof. MUDr. Jana Jurkovičová, CSc., prof. MUDr. Ľubica Argalášová, PhD., MUDr. Jana Babjaková, PhD., MPH</p>																	
<p><b>Last change:</b> 31.05.2024</p>																	
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>																	

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLFB/L-S-VL-169/19	<b>Course title:</b> Imaging Methods in Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Individual study: 26 hours/semester	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2	
<b>Course requirements:</b> Conditions for registering for the exam: - Active participation in lectures – weight 0.1 - Mid-term written tests (at least 70,0 %) – weight 0.3 Exam: - Written test (at least 70,0 %) - weight 0.5 - Oral exam - presentation of selected topic - weight 0.1 Rating: A: 94.0 % – 100.0 %; B: 88.0 % – 93.9 %; C: 82.0 % – 87.9 %; D: 76.0 % – 81.9 %; E: 70.0 – 75.9 %; Fx: 69.9 % – 0.0 %. The overall rating will be determined from the weighted average of the ratings received, with no partial rating being Fx.	
<b>Learning outcomes:</b> Knowledge: Upon successful completion of the course, students should be familiar with the physical principles of image creation in medicine as a diagnostic tool focusing on digital methods including physical effects of external factors on the body. Skills: Ability to determine the suitability of using the selected imaging method for a particular patient in terms of the usefulness of the information obtained and patient safety.	
<b>Class syllabus:</b> Physical principles of radiation, radiation dosimetry, radiation detection, protection against ionizing radiation, safety regulations. X-ray imaging methods - sources and properties of radiation, X-ray interaction with matter, image creation and imaging systems, skiagraphy, fluoroscopy, digital radiography, computed tomography, artifacts, application. Imaging methods using radionuclides - sources and properties of radiation, interaction of radiation with matter and its detection, preparation of radionuclides, labelling, image creation and imaging	

systems, positron emission tomography, single photon emission computed tomography, artifacts, application.

Magnetic resonance imaging - physical principles of nuclear magnetic resonance, image creation and imaging systems, artifacts, application.

Ultrasound imaging methods - sources and properties of ultrasound, interaction with matter, ultrasound detection, image creation and imaging systems, probes, modes, artifacts, Doppler phenomenon, Doppler systems, application.

Optical and optoelectric diagnostic methods - physical principles of methods, light reflection and refraction, light sources and properties, image creation and imaging systems, light and electron microscopy, atomic force microscopy, optical coherent tomography, endoscopy, artifacts, application.

Thermometry and thermography - infrared radiation, physical principles, properties and sources, liquid crystals, image creation and imaging systems, artifacts, application.

#### **Recommended literature:**

- ALLISY-ROBERTS, P., WILLIAMS, J. Farr's Physics for Medical Imaging. Edinburgh : Saunders - Elsevier, 2008, 207 p. ISBN 978-0-7020-2844-1.
- BENEŠ J., JIRÁK D., VÍTEK F. Základy lékařské fyziky. [V Praze] : Charles University in Prague, Karolinum Press. 2015. ISBN: 9788024626451. 9788024626710 - vybrané kapitoly.
- HAIDEKKER, M. A. Medical Imaging Technology. New York : Springer, 2013, 130 p. ISBN 978-1-4614-7072-4.
- HOLÁ, O., HOLÝ, K. Radiačná ochrana. Ionizujúce žiarenie, jeho účinky a ochrana pred ionizujúcim žiarením. Bratislava : STU, 2010. 200 s. ISBN 978-80-227-3240-6 – vybrané kapitoly.
- KANE, S. A., GELMAN, B. A. Introduction to Physics in Modern Medicine. 3rd ed. Boca Raton – London – New York : CRC Press, 2020, 431 p. ISBN 978-1-138-03603-6 – vybrané kapitoly.
- MORNSTEIN, V. a kol., Lékařská fyzika a biofyzika. Brno : MU Brno, 2018, 339 s. ISBN 9788021089846 – vybrané kapitoly.
- NAVRÁTIL, L., ROSINA, J. a kol. Medicínská biofyzika. Praha : Grada, 2019, 432 s. ISBN 9788027102099 – vybrané kapitoly.
- WEBSTER, J. G. (ed.) The Physiological Measurement Handbook. New York : John Wiley&Sons, Inc., 2015 (4th edition). 587 p. ISBN 978-1-4398-0841-1 – vybrané kapitoly.
- Prednášky na portáli MEFANET LF UK – sekcia Biofyzika (<http://portal.fmed.uniba.sk/>).
- Doplnkový e-kurz ([www.moja.uniba.sk](http://www.moja.uniba.sk/)).
- Ďalšie dostupné inovované literárne a internetové zdroje.

#### **Languages necessary to complete the course:**

slovak

#### **Notes:**

#### **Past grade distribution**

Total number of evaluated students: 11

A	B	C	D	E	FX
45,45	36,36	9,09	9,09	0,0	0,0

**Lecturers:** doc. RNDr. Mgr. Katarína Kozlíková, CSc., PhDr. Michal Trnka, PhD.

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IÚ/L-S-VL-092/22	<b>Course title:</b> Immunology
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 37s / 19s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 5.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100 % participation on the practical exercises Passing 2 written tests (each with at least 60 %) Passing final test from practicals: with at least 60 % Examination: Written part: test Test evaluation: A: 91 – 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: less than 59 % Oral part: the student answers 3 questions (from basic immunology: 2 questions; from clinical immunology: 1 question)	
<b>Learning outcomes:</b> <b>Knowledge:</b> After completing the course, the student will receive: 1. knowledge of general and clinical immunology; knowledge of innate and adaptive T-cell and antibody immunity, inflammation, cytokines, the development of the immune response and the fundamental role of cells and humoral immune factors in the immunopathogenesis of diseases. 2. knowledge of transplant immunology, autoimmune diseases, hypersensitivity reactions, allergies, anti-infective immunity, vaccinations, immunodeficiencies, anti-tumor immunity and pregnancy immunology. 3. a comprehensive view of immunity as part of the psycho-neuro-endocrine system of the body. 4. acquires knowledge about the examination of the individual's immune profile and basic knowledge about the immunodiagnostics of immunodeficiencies and, in part, immunopathological processes. <b>Skills:</b> 1. Know the clinical symptoms of allergies, the difference between atopy, anaphylaxis. Recognizes the manifestations of allergic diseases, anaphylactic, anaphylactoid shock, and serum sickness. 2. Knows the manifestations of basic congenital immunodeficiency conditions, their diagnosis, and treatment.	

3. He knows when and what material to take for immunological examination, he knows the basic methods for examining the immune profile of immunocompromised patients.
4. He should be able to interpret the results of basic immunological tests.

### **Class syllabus:**

#### **Lectures:**

Milestones in the development of immunology. Immune system, definition, structure and function; tissues, organs, cells and humoral factors of immunity. Forms of immunity. Properties of innate and adaptive immunity. Organs and tissues of the immune system. Antigen. Antigen, its characteristics and properties. B-lymphocytes, plasma cells and antibodies. Basics of antibody production. Immunoglobulins, structure, their classes and subclasses. Domains, constant and variable sections, modules. Antibody binding site. Primary and secondary antibody response. Function of individual classes of immunoglobulins. Antibody genetics. Hybridomas and monoclonal antibodies. Complement system. Classical, alternative and lectin activation pathway. Vasoactive and chemotactic effects of complement. Regulatory proteins and receptors of the complement system. Biological significance of the complement system. Complement disorders, hereditary angioedema. Acute phase proteins. Humoral and cellular indicators of inflammation. Phagocytosis and professional phagocytes. Phases of phagocytosis and killing mechanisms of phagocytes. Netosis. Origin, differentiation, types and subpopulations of macrophages and their significance. Pathogen associated molecular patterns (PAMPs) and danger associated molecular patterns (DAMPs) and their recognition by pattern recognition receptors (PRR). Infectious (sepsis) and non-infectious inflammation. Membrane antigens. The most important membrane antigens of individual populations of immune system cells and their significance. T-lymphocytes, NK-, NKT-, ILC- and MAIT- cells. Origin and differentiation of T-lymphocytes. Characteristics and properties of T-lymphocytes. T-cell antigen receptor. T cell subpopulations. NK- and NKT -cells, their receptors and mechanism of their action. Natural and induced regulatory T cells. HLA-complex and its biological and medical significance. Gene map of the HLA-complex. Distribution and inheritance of HLA-molecules. HLA-molecules, biochemical structure and biological function. HLA-G as a checkpoint molecule. Presentation of antigens. Endogenous and exogenous pathways of protein antigen presentation. Presentation of lipid antigens. Cell cooperation in the immune response. Apoptosis. Cytokines. General properties of cytokines. Cytokines and their role in psycho-neuro-endocrine regulation. Role of sympathetic and parasympathetic nerve system in immune modulation. Cytokines regulating innate and adaptive immunity. The role of cytokines in the development and polarization of the immune response. Th1, Th2, Th5, Th9 and Th17 lymphocytes and their role in immunity. Pro-inflammatory cytokines and cytokines with anti-inflammatory and immunosuppressive activity. Cytokines stimulating hematopoiesis, chemokines. Immune tolerance. T-cell differentiation in the thymus; dominant and recessive tolerance. Autoimmunity. Mechanisms leading to the development of autoimmunity. Autoantigens. Genetic and hormonal predisposition to the development of autoimmune processes. Pathogenetic mechanisms of autoimmune processes. Diagnostic possibilities and immunotherapy. Autoinflammatory diseases. Hypersensitivity reactions types I-V. Immunopathogenesis of hypersensitivity conditions, classification. Type I of hypersensitivity reactions. Allergies, atopy, anaphylaxis. Diagnosis, therapy and prevention. Anaphylactic and anaphylactoid shock - symptoms and treatment. Type II of hypersensitivity reactions. ABO incompatible blood transfusions, Rh-incompatibility, drug reactions. Type III of hypersensitivity reactions. Immunocomplex inflammation. Serum sickness, Arthus reaction. Type IV of hypersensitivity reactions. Tuberculin reaction. Contact dermatitis. Granulomas. Type V. hypersensitivity reactions. Tumors and the immune system. Immunology of cancer. Immunoediting. The mechanisms of the escape of malignant cells from the reach of effector mechanisms of the immune system. Metastatic process. Immunodiagnostics and immunotherapy of tumors. Tissue, organ and stem cells transplantation. Nomenclature of transplants. HvG, GvH,

GvL reactions, selection of donor-recipient pairs, immunosuppression. Immunology of human reproduction. Immune response during physiological pregnancy. Embryo implantation. Immune system in fetal development. Immune system in the pathology of pregnancy. Immune system of the fetus, newborn and infant. Immune system of a woman's urogenital tract. Aging and immunity. Primary and secondary immunodeficiencies. General manifestations of immunodeficiencies, occurrence, division. Immunodeficient conditions with a predominance of antibody disorders, and cellular immunity. Autoimmune polyglandular syndrome (APS). Combined immunodeficiencies. Deficiency of components of the complement system. Disorders of phagocytosis. AIDS. Immunotherapy and immunoprevention. Immunostimulants, immunosuppressants, monoclonal antibodies, cytokines, enzyme therapy, vaccines, stem cell therapy.

#### Practicals:

Specimen collection and delivery for immunology testing. Methods based on antibody - antigen interactions. Classical serological techniques: agglutination (blood group typing), precipitation, immunoelectrophoresis, immunodiffusion techniques and nephelometry, turbidimetry. Progressive serology methods: ELISA, RIA, immunoblotting, immunofluorescence, chemiluminescence, immunochromatography (detection of antibodies against H. pylori, pregnancy rapid test). Laboratory diagnosis of SARS-CoV-2 infection – antigen and antibody tests, LAMP test. Evaluation of innate humoral immunity: Total complement activity assays (CH50, AH50). Evaluation of individual complement components (RID, turbidimetry and nefelometry). Determination of acute phase proteins (CRP-determination from capillary blood by reflectometry). Case study – hereditary angioedema and anaphylactoid shock. Evaluation of innate cellular immunity components: Isolation of leukocytes from peripheral blood, enumeration of neutrophils. Functional analysis of neutrophils - chemotactic activity, phagocytic activity and phagocytic index, microbicidal activity, metabolic activation (NBT test). Case study - chronic granulomatous disease. Evaluation of adaptive humoral and cellular immunity component: Isolation of lymphocytes. Separation of T cell subpopulations and evaluation of the number of T and B cells and their subsets (flow cytometry, FACS, MACS). Evaluation of the function of T and B cells (blastic transformation assay, determination of the levels of immunoglobulins and specific antibodies). Immunoskin tests. Diagnostics of infectious diseases based on lymphocyte activation (IGRA – principle, casuistic of tuberculosis). Laboratory methods used in transplantation immunology – HLA-typing. Serologic methods: microlymphocytotoxicity assay. Cellular methods: MLC (mixed lymphocyte culture). DNA-based methods: PCR –SSP. Video-presentation explaining DNA-based HLA-typing. Diagnostics of allergic diseases: atopy and anaphylaxis, clinical symptomatology. Anaphylactic shock – symptomatology and therapy, EpiPen demonstration. Skin tests: prick test, scarification test, intradermal skin test, epidermal test. Determination of total and allergen-specific IgE levels. Basophil-degranulation test, CD63 basophil counts. Case studies: of allergic diseases, anaphylactic shock, Arthus reaction and a serum sickness. Laboratory methods used in the diagnostics of autoimmune disorders. Determination of acute phase proteins, levels of immunoglobulins, total complement level, C3, C4 complement levels, CD4/CD8 ratio, detection of autoantibodies, determination of circulating immune complexes. Casuistic: Autoimmune polyglandular syndromes (APSII and IV). Practical experiment - rheumatoid factor determination by latex agglutination. Diagnostics of tumour processes (CRP, oncomarkers, immunophenotyping, immunohistochemistry). Laboratory diagnosis of HIV infection (ELISA, Western blot, CD4+ T cell counts, virus load). Laboratory assessment of the immune status – overview: evaluation of innate and acquired immunity – summary, differential blood cell counting, inflammatory markers, diagnostics of infectious diseases. Case studies, and how to solve the problem. Immunocompromised patient.

#### Recommended literature:

1. Buc, M.: Základná a klinická imunológia. Imunológia. Bratislava, VEDA 2012, 831 s.

2. Buc, M.: Autoimunita a autoimunitné choroby. VEDA 2005, 430 s.
3. Buc, M. Základná a klinická imunológia pre študentov zubného lekárstva. Bratislava, ISBN 978-80-223-2312-3. Univerzita Komenského 2010, 342 s.
4. Buc, M., Bucová, M. Základná a klinická imunológia pre ošetrovateľstvo a iné nelekárske odbory: Bratislava, ISBN 80-223-2151-6, Univerzita Komenského 2006, 334 s. (učebnica pre ľahšie pochopenie imunológie)
5. Kolektív autorov: Vyšetrovacie metódy v imunológii. Bratislava: Univerzita Komenského 2014, ISBN 978-80-223-3739-7 190 s.
6. Video-prezentácie prednášajúcich.

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 914

A	B	C	D	E	FX
12,36	20,13	30,31	18,82	14,44	3,94

**Lecturers:** prof. MUDr. Milan Buc, DrSc., doc. MUDr. Mária Bucová, CSc., doc. RNDr. Vladimíra Ďurmanová, PhD., doc. Mgr. Ivana Shawkatová, PhD., MUDr. Monika Homolová, PhD., MUDr. Juraj Javor, PhD., MUDr. Zuzana Párnická, PhD., MUDr. Magda Suchánková, PhD.

**Last change:** 08.12.2022

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KIGM/L-S-VL-028/20	<b>Course title:</b> Infectology
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9., 10..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.NK1/L-S-VL-048/19 - Neurology 2	
<b>Course requirements:</b> 100 % attendance during practicals - elaboration and report of seminar work - written and oral report of patient's case <b>Exam:</b> - written part – test ( minimum 60 % ) - oral part – 2 questions Test evaluation: A: 91 – 100%, B: 81 – 90%, C: 73 – 80%, D: 66 – 72%, E: 60 – 65% Fx: 59% and less The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: general overview of the clinical presentation, diagnosis, differential diagnosis, treatment and prevention of most important infectious diseases. Basics of antibiotic stewardship. Skills: Differential diagnostics of most important syndromes in infectology (e.g. meningitis, diarrhoea, fever in travellers, fever of unknown origin). The ability to develop an optimal algorithm for the diagnosis of infectious diseases, the ability to indicate invasive and non-invasive procedures in differential diagnostics of infectious diseases. The ability to evaluate the blood smear to diagnose malaria and microscopic examination of stool for parasitological examination. The ability to indicate empiric and targeted antibiotic, antiviral and antiparasitic treatment.	
<b>Class syllabus:</b> Pathogen-host interaction, the course of infectious diseases, haematological and biochemical changes in infectious diseases. Peculiarities of infectious diseases in special situations and age groups. Practical exercises and internships include seminars, demonstrations of selected case reports on a large screen, demonstrations of nosological and syndromological units at the patient's bedside, demonstrations and practical demonstrations of selected laboratory tests (blood tests, urine, cerebrospinal fluid, malaria blood smear).	
<b>Recommended literature:</b> Rozsypal, H.: Základy infekčního lékařství. Praha: Karolinum, 2015 ( aj e-kniha)	

<p>Beneš, J. a spol.: Infekční lékařství. Praha: Galen, 2009</p> <p>Bálint, O. a spol.: Infektológia a antiinfekčná terapia. Martin: Osveta, 2007</p> <p>Literatúra pre ďalšie štúdium</p> <p>Falagas M. E. and Mylonakis E. Gorbach's 5 – Minute Infectious Disease Consult. 2-nd edition. Wolters Kluwer/Lippincott Williams &amp; Wilkins 2012</p> <p>Infectious Diseases a Clinical Short Course. Third Edition. McGraw-Hill. 2015.480 p.</p> <p>Dostupné vo vydavateľstve Martinus.sk – cena 43 € ) ISBN 9781259095207</p>					
<p><b>Languages necessary to complete the course:</b></p> <p>Slovak</p>					
<p><b>Notes:</b></p>					
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 1465</p>					
A	B	C	D	E	FX
55,9	24,91	12,29	4,44	2,39	0,07
<p><b>Lecturers:</b> doc. MUDr. Igor Stankovič, CSc., doc. MUDr. Peter Sabaka, PhD., MUDr. Matej Bendžala, PhD., MUDr. Karol Laktiš, CSc., MUDr. Mohammad Dababseh, MUDr. Ján Jurenka, MUDr. Pavlína Bukovinová, PhD., MPH</p>					
<p><b>Last change:</b> 24.05.2024</p>					
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>					

## STATE EXAM DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK/L-VL-ŠS-3/15	<b>Course title:</b> Internal Medicine
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 11., 12..	
<b>Educational level:</b> I.II.	
<b>State exam syllabus:</b>	
<b>Last change:</b>	
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH	

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK5/L-S-VL-030/25	<b>Course title:</b> Internal Medicine 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 31s / 35s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK5/L-S-VL-029/25 - Internal Medicine 1 or LF.IK5/L-S-VL-029/18 - Internal Medicine 1	
<b>Course requirements:</b> 1/ Compulsory 100% attendance at the practicals. 2/ Pass the final credit written test (Evaluation of the test: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less). The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> <ul style="list-style-type: none"> <li>- Pneumology – disease pathophysiology, epidemiology and the impact of the disease, signs and symptoms, diagnostics and differential diagnostics, basis of the prevention and treatment, including tuberculosis.</li> <li>- Examinations and therapeutic interventions in pneumology.</li> <li>- Rheumatology - disease pathophysiology, epidemiology and the impact of the disease, signs and symptoms, diagnostics and differential diagnostics, basis of the prevention and treatment</li> <li>- Examinations and therapeutic interventions in rheumatology</li> <li>- Improvement of the knowledge of the Internal propaedeutic</li> </ul> <b>Skills:</b> <ul style="list-style-type: none"> <li>- Improvement of the skills when taking history and of the patient's clinical examination</li> <li>- Individual examination of the patient with respiratory tract disease, elaboration of the patient's medical record</li> <li>- Individual examination of the patient with musculoskeletal disorder, elaboration of the patient's medical record</li> <li>- Assistance by the pleural puncture, assistance in examination of lung volumes and flows, assistance by the bronchoscopy</li> <li>- Assistance by the application of inhalant drugs including oxygen</li> <li>- Assistance by the evaluation of X-ray of joints, assistance by DXA and its evaluation</li> <li>- Improvement of the skills in describing the ECG and chest X-ray</li> <li>- Venipuncture, collection of venous and arterial blood, administration of i.v., i.m. and s.c. medication, measurement of blood pressure, pulse and body temperature</li> </ul>	

**Class syllabus:**

Diseases of the respiratory tract and lungs (incidence, social impact). Basic and special examinations in pneumology. Bronchial diseases. Chronic obstructive pulmonary disease. Bronchial asthma. Lung tumors. Pleural and Mediastinal diseases. Diagnostics and treatment of tuberculosis.

Diseases of joints, tendons and bones. Basic and special examinations in rheumatology. Rheumatoid arthritis. Lupus erythematosus. Scleroderma. Dermatomyositis. Periarthritis nodosa. Sjögren's syndrome. Gout. Polymyositis. Vasculitis. Osteoporosis and other metabolic diseases of bones.

**Recommended literature:**

KIŇOVÁ, S., HULÍN, I., a kol. Interná medicína. Bratislava: ProLitera 2013, 1136 s. ISBN 978-80-970253-9-7

HRUŠOVSKÝ, Š. a kol. Internistická propedeutika. Bratislava: Herba, 2013. 800 s. ISBN 978-80-89171-72-9

BADA, V. Základy klinickej elektrokardiografie. Bratislava: Univerzita Komenského, 2016. 5. prepracované vydanie, 124 s. ISBN 978-80-223-4110-3.

PAYER J., a kol. Vybrané klasifikácie v internej medicíne. Bratislava: Herba, 2016. 76 s. ISBN 978-80-89631-47-5

KIŇOVÁ, S., ĎURIŠ, I., HULÍN, I. Od symptómu k diagnóze a liečbe. Bratislava: ProLitera, 2013. 1134 s. ISBN 978-80-89668-01-4

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KLENER, P. et al. Vnitřní lékařství. Praha: Karolinum, Galén, 2011. 4. preprac. a dopl. vyd. 1174 s. ISBN 978-80-7262-705-9.

ČEŠKA, R., TESAŘ, V., DÍTĚ, P., ŠTULC, T., a kol. Interna. Praha: Triton, 2010, 855 s. ISBN 978-80-7387-423-0

ŠTVRTINOVÁ, V. a kol. Bolesť končatín. Bratislava: SAP, 2012, 165 s. ISBN 978-80-89607-05-1

PAYER, J., KILLINGER Z., a kol. Osteoporóza. Bratislava: Herba, 2012, 256 s. ISBN 978-80-89171-94-1

BOROVSKÝ, M., PAYER, J., a kol. Gynekologická endokrinológia. Bratislava: Herba, 2016. 248 s. ISBN 978-80-89631-57-3

PAYER, J., BOROVSKÝ, M., a kol. Osteoporóza u vybraných ochorení. Bratislava: Herba, 2014. 192 s. ISBN 978-80-89631-19-3

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HEGYI, L., KRAJČÍK, Š. Geriatria. Bratislava: Herba, 2010. 601 s. ISBN 978-80-89171-73-6

KRAHULEC, B., FÁBRYOVÁ L., HOLÉČZY, P., KLIMEŠ I., a kol. Klinická obezitológia. Brno: Facta Medica, s.r.o., 2013. 336 s. ISBN 978-80-904731-7-1

URBAN, Š.: Priedušková astma. Diagnostika a terapia. Bratislava: Herba, 2015, 240 s. ISBN 978-80-89-631-39-1.

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JAMESON, L., FAUCI, A., KASPER, D., HAUSER, S., LONGO, D., LOSCALZO J.  
Harrison's Principles of Internal Medicine 20th ed. New York: McGraw-Hill, 2018. ISBN 978-1-25-964404-7

GOLDMAN, L. et al. Goldman's Cecil medicine, 25th edition. Philadelphia: Elsevier Saunders, 2016. 3024 pp. ISBN 978-1-4577-5017-7

KUMAR, P., CLARK, M. Kumar and Clark's Clinical Medicine, 9th edition. Elsevier, 2016. 1456 pp. ISBN: 978-0-70020-660-16

SWARTZ, MH. Textbook of physical diagnosis: history and examination, 7th edition. Philadelphia: Elsevier Saunders 2014. ISBN: 978-0-3232-2148-1

COLLEDGE, N.R. et al. Davidson's Principles and Practice of Medicine. Edinburgh: Churchill Livingstone, 2010. 1376 s. ISBN 978-0-7020-3085-7

MISTRÍK M. Choroby červených a bielych krviniek. Bratislava ProLitera, 2014. 155 s. ISBN 978-80-89668-02-1

SAKALOVÁ, A., BÁTOROVÁ, A., MISTRÍK, M., a kol. Klinická hematológia. Osveta Martin 2010. 295 s. ISBN 978-80-8063-324-0

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Juraj Payer, PhD., MPH, doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Mária Szántová, PhD., prof. MUDr. Peter Pont'uch, CSc., doc. MUDr. Peter Jackuliak, PhD., MPH, prof. MUDr. Viera Kupčová, CSc., prof. MUDr. Andrej Dukát, CSc., doc. MUDr. Tomáš Koller, PhD., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. Silvester Krčméry, CSc., MUDr. Silvia Grančáková, MUDr. Rastislav Tahotný, PhD., MUDr. Marta Hájková, CSc., doc. MUDr. Štefan Urban, CSc., doc. MUDr. Martin Čaprnda, PhD., prof. MUDr. Tibor Hlavatý, PhD.

**Last change:** 22.01.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK5/L-S-VL-029/25	<b>Course title:</b> Internal Medicine 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 35s / 45s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 4	
<b>Recommended semester:</b> 6.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK_1/L-S-VL-035/18 - Internal Propedeutics	
<b>Course requirements:</b> 1/ Compulsory 100% attendance at the practicals. 2/ Pass the final credit written test (Evaluation of the test: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less). The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> <ul style="list-style-type: none"> <li>- Cardiology – diseases pathophysiology, epidemiology and the impact of the diseases, basic signs and symptoms, diagnostics and differential diagnostics, basics of the prevention and treatment</li> <li>- Angiology – pathophysiology of the diseases of arteries, veins and lymphatic vessels, epidemiology and the impact of the diseases, basic signs and symptoms, diagnostics and differential diagnostics, basis of the prevention and treatment</li> <li>- ECG examination – improvement of the knowledge, basic pathological findings on ECG and their correlation with clinical condition</li> <li>- Examination methods and therapeutic interventions in cardiology and angiology</li> <li>- Improvement of the knowledge of the Internal propaedeutic</li> </ul> <b>Skills:</b> <ul style="list-style-type: none"> <li>- Improvement of the skills when taking history and clinical examination</li> <li>- Individual examination of the patient with the cardiovascular diseases, elaboration of the patient's medical record</li> <li>- Description of the physiological and pathological findings on the ECG</li> <li>- Description of the chest X-ray (heart and lungs)</li> <li>- Assistance by echocardiography and ergometry</li> <li>- Assistance by ultrasound examination of the vein system of the lower extremities Venepuncture, collection of venous and arterial blood, administration of i.v., i.m. and s.c. medication, measurement of blood pressure, pulse and body temperature</li> </ul>	
<b>Class syllabus:</b> Cardiovascular diseases (incidence, epidemiology, social status). Basic and special examinations in cardiology (ECG, chest X-ray, echocardiography, ergometry, coronarography, Holter-monitoring	

of blood pressure and ECG). Heart failure. Atherosclerosis. Atherosclerotic coronary heart disease. Acute coronary syndromes. Failure of peripheral circulation (shock, syncope). Acquired valvular dysfunctions. Myocarditis. Endocarditis. Pericarditis. Cardiomyopathy. Arrhythmias. Arterial hypertension. Peripheral vascular diseases. Aortic diseases. Neurocirculatory asthenia. Chronic vein disease. Thromboembolic disease (pulmonary embolism, phlebotrombosis)

**Recommended literature:**

- KIŇOVÁ, S., HULÍN, I., a kol. Interná medicína. Bratislava: ProLitera 2013, 1136 s. ISBN 978-80-970253-9-7
- HRUŠOVSKÝ, Š. a kol. Internistická propedeutika. Bratislava: Herba, 2013. 800 s. ISBN 978-80-89171-72-9
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- PAYER J., a kol. Vybrané klasifikácie v internej medicíne. Bratislava: Herba, 2016. 76 s. ISBN 978-80-89631-47-5
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- KLENER, P. et al. Vnitřní lékařství. Praha: Karolinum, Galén, 2011. 4. preprac. a dopl. vyd. 1174 s. ISBN 978-80-7262-705-9.
- ČEŠKA, R., TESAŘ, V., DÍTĚ, P., ŠTULC, T., a kol. Interna. Praha: Triton, 2010, 855 s. ISBN 978-80-7387-423-0
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- MOJTO, V.: Vybrané kapitoly z klinickej diabetológie. Bratislava: Asklepios, 2016, 115 s. ISBN 978-80-7167-182-4.
- KRČMÉRY, S., DÚBRAVA, M., KRČMÉRY, V., HROMEC, J., a kol. Antiinfekčná chemoterapia pre prax. Bratislava: Univerzita Komenského, 2011. 460 s. ISBN 978-80-223-2995-8.
- KIŇOVÁ, S., HULÍN, I., et al. Choroby tráviaceho systému. Bratislava: ProLitera, 2011. 200 s. ISBN 978-80-970253-5-9
- HEGYI, L., KRAJČÍK, Š. Geriatria. Bratislava: Herba, 2010. 601 s. ISBN 978-80-89171-73-6
- KRAHULEC, B., FÁBRYOVÁ L., HOLÉČZY, P., KLIMEŠ I., a kol. Klinická obezitológia. Brno: Facta Medica, s.r.o., 2013. 336 s. ISBN 978-80-904731-7-1
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- SOUČEK, M. a kol. Vnitřní lékařství. Praha: Grada, 2011. 1808 s. ISBN 978-80-247-2110-1
- JAMESON, L., FAUCI, A., KASPER, D., HAUSER, S., LONGO, D., LOSCALZO J. Harrison's Principles of Internal Medicine 20th ed. New York: McGraw-Hill, 2018. ISBN 978-1-25-964404-7
- GOLDMAN, L. et al. Goldman's cecil medicine, 25th edition. Philadelphia: Elsevier Saunders, 2016. 3024 pp. ISBN 978-1-4577-5017-7



<p>KUMAR, P., CLARK, M. Kumar and Clark's Clinical Medicine, 9th edition. Elsevier, 2016.1456 pp. ISBN: 978-0-70020-660-16</p> <p>SWARTZ, MH. Textbook of physical diagnosis: history and examination, 7th edition. Philadelphia: Elsevier Saunders 2014. ISBN: 978-0-3232-2148-1</p> <p>COLLEDGE, N.R. et al. Davidson's Principles and Practice of Medicine. Edinburgh: Churchill Livingstone, 2010. 1376 s. ISBN 978-0-7020-3085-7</p> <p>MISTRÍK M. Choroby červených a bielych krviniek. Bratislava ProLitera, 2014. 155 s. ISBN 978-80-89668-02-1</p> <p>SAKALOVÁ, A., BÁTOROVÁ, A., MISTRÍK, M., a kol. Klinická hematológia. Osveta Martin 2010. 295 s. ISBN 978-80-8063-324-0</p>																				
<p><b>Languages necessary to complete the course:</b> slovak</p>																				
<p><b>Notes:</b></p>																				
<p><b>Past grade distribution</b> Total number of evaluated students: 0</p> <table> <tr> <th>A</th><th>ABS0</th><th>B</th><th>C</th><th>D</th><th>E</th><th>FX</th></tr> <tr> <td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td></tr> </table>							A	ABS0	B	C	D	E	FX	0,0	0,0	0,0	0,0	0,0	0,0	0,0
A	ABS0	B	C	D	E	FX														
0,0	0,0	0,0	0,0	0,0	0,0	0,0														
<p><b>Lecturers:</b> prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Mária Szántová, PhD., doc. MUDr. Denisa Čelovská, PhD., doc. MUDr. Ján Lietava, CSc., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Ľudovít Lukáč, PhD., prof. MUDr. Ján Murín, CSc., doc. MUDr. Martin Čaprnda, PhD., doc. MUDr. Jozef Bulas, CSc., prof. MUDr. Viera Kupčová, CSc., prof. MUDr. Andrej Dukát, CSc., doc. MUDr. Tomáš Koller, PhD.</p>																				
<p><b>Last change:</b> 22.01.2025</p>																				
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>																				

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK5/L-S-VL-031/25	<b>Course title:</b> Internal Medicine 3
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 33s / 35s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 4	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK5/L-S-VL-030/25 - Internal Medicine 2	
<b>Course requirements:</b> 1/ Compulsory 100% attendance at the practicals. 2/ Pass the final credit written test (Evaluation of the test: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less). The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> <ul style="list-style-type: none"> <li>- Gastroenterology and hepatology - disease pathophysiology, epidemiology and the impact of the disease, basic signs and symptoms, diagnostics and differential diagnostics, basics of the prevention and treatment</li> <li>- Examinations and therapeutic interventions in gastroenterology and hepatology</li> <li>- Hematology - disease pathophysiology, epidemiology and the impact of the disease, basic signs and symptoms, diagnostics and differential diagnostics, basics of the prevention and treatment</li> <li>- Examinations and therapeutic interventions in haematology</li> <li>- Improvement of the knowledge of the Internal propaedeutic</li> </ul> <b>Skills:</b> <ul style="list-style-type: none"> <li>- Improvement of the skills when taking history and of the patient's clinical examination</li> <li>- Individual examination of the patient with the gastrointestinal disease, elaboration of the patient's medical record</li> <li>- Digital rectal examination</li> <li>- Assistance by ascites puncture, liver puncture, gastrofibroscopy, colonoscopy, ERCP, ultrasound of the abdomen, nasogastric tube insertion</li> <li>- Individual examination of the patient with haematologic disease, elaboration of the patient's medical record</li> <li>- Assistance by the bone marrow puncture</li> <li>- Blood transfusion, examination before blood transfusion.</li> <li>- Improvement of the skills in describing the ECG and chest X-ray</li> <li>- Venipuncture, collection of venous and arterial blood, administration of i.v., i.m. and s.c. medication, measurement of blood pressure, pulse and body temperature</li> </ul>	

**Class syllabus:**

Diseases of gastrointestinal tract (epidemiology, social impact). Basic and special examinations in gastroenterology and hepatology. Oesophageal diseases. Diseases of stomach. Functional dyspepsia. Diseases of small intestine. Inflammatory bowel diseases. Diseases of colon. Gastrointestinal tumors. Diseases of gall-bladder and biliary tract. Liver diseases. Diseases of pancreas.

Anemia and anemic syndrome. Myelodysplastic syndrome. Myeloproliferative diseases. Hemocoagulation disorders. Leucopenias. Trombocytopenias. Acute and chronic leukemia. Lymphomas. Transfusion of blood products. Special examinations in hematology.

**Recommended literature:**

KIŇOVÁ, S., HULÍN, I., a kol. Interná medicína. Bratislava: ProLitera 2013, 1136 s. ISBN 978-80-970253-9-7

HRUŠOVSKÝ, Š. a kol. Internistická propedeutika. Bratislava: Herba, 2013. 800 s. ISBN 978-80-89171-72-9

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SOUČEK, M. a kol. Vnitřní lékařství. Praha: Grada, 2011. 1808 s. ISBN 978-80-247-2110-1

JAMESON, L., FAUCI, A., KASPER, D., HAUSER, S., LONGO, D., LOSCALZO J. Harrison's Principles of Internal Medicine 20th ed. New York: McGraw-Hill, 2018. ISBN 978-1-25-964404-7

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MISTRÍK M. Choroby červených a bielych krviniek. Bratislava ProLitera, 2014. 155 s. ISBN 978-80-89668-02-1

SAKALOVÁ, A., BÁTOROVÁ, A., MISTRÍK, M., a kol. Klinická hematológia. Osveta Martin 2010. 295 s. ISBN 978-80-8063-324-0

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Juraj Payer, PhD., MPH, doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Mária Szántová, PhD., doc. MUDr. Martin Čaprnda, PhD., doc. MUDr. Peter Jackuliak, PhD., MPH, prof. MUDr. Peter Pont'uch, CSc., prof. MUDr. Viera Kupčová, CSc., doc. MUDr. Tomáš Koller, PhD., prof. MUDr. Andrej Dukát, CSc., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. Silvester Krčméry, CSc., MUDr. Silvia Grančáková, MUDr. Rastislav Tahotný, PhD., MUDr. Marta Hájková, CSc.

**Last change:** 22.01.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK5/L-S-VL-093/22	<b>Course title:</b> Internal Medicine 4
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 29s / 40s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK5/L-S-VL-031/25 - Internal Medicine 3 or LF.IK5/L-S-VL-031/19 - Internal Medicine 3	
<b>Course requirements:</b> 1/ Compulsory 100% attendance at the practicals. 2/ Pass the final credit written test (Evaluation of the test: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less). Successfully passed test (minimal score 60%) is required for the admission to the oral part of the exam 3/ Pass the oral exam (successful answering of all questions). The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> <ul style="list-style-type: none"> <li>- Endocrinology and diabetology - disease pathophysiology, epidemiology and the impact of the disease, basic signs and symptoms, diagnostics and differential diagnostics, basics of the prevention and treatment</li> <li>- Examinations and therapeutic interventions in endocrinology and diabetology</li> <li>- Nephrology - disease pathophysiology, epidemiology and the impact of the disease, basic signs and symptoms, diagnostics and differential diagnostics, basics of the prevention and treatment</li> <li>- Examinations and therapeutic interventions in nephrology</li> <li>- Eliminations methods in renal failure.</li> <li>- Improvement of the knowledge of the Internal propaedeutic</li> </ul> <b>Skills:</b> <ul style="list-style-type: none"> <li>- Improvement of the skills when taking history and of the patient's clinical examination</li> <li>- Individual examination of the patient with the endocrinal disease and diabetes mellitus, elaboration of the patient's medical record</li> <li>- Assistance by ultrasound of the thyroid gland</li> <li>- Individual examination of the patient with kidney disease, elaboration of the patient's medical record</li> <li>- Catheterisation of urinary bladder</li> <li>- Assistance during eliminations methods (hemodialysis, peritoneal dialysis).</li> <li>- Improvement of the skills in describing the ECG and chest X-ray</li> </ul>	

- Venipuncture, collection of venous and arterial blood, administration of i.v., i.m. and s.c. medication, measurement of blood pressure, pulse and body temperature

**Class syllabus:**

Endocrinopathies (epidemiology, social impact). Diseases of hypophysis and hypothalamus. Pituitary tumors. Acromegaly and gigantism. Hyperprolactinemia. Pineal gland disorders. Syndrome of inappropriate secretion of ADH. Diabetes insipidus. Cushing's disease and syndrome. Addison's disease. Diseases of the adrenal medulla. Parathyroid diseases. Thyroid diseases (hyper- and hypothyroidism, thyroiditis, tumors of the thyroid gland). Testicular insufficiency. Tumors of testes. Ovarian insufficiency, ovarian tumors. Paraneoplastic endocrinopathies. Diabetes mellitus and its complications. Dyslipidemia. Metabolic syndrome. Obesity. Porphyrrias. Acute and chronic renal insufficiency. Extracorporeal elimination methods. Indications for dialysis and kidney transplantation. Acute and chronic glomerulonephritis. Nephrotic syndrome. Systemic diseases with renal manifestations. Infections of urinary tract. Interstitial nephritis. Urolithiasis. Polycystic kidneys. Renal dysfunctions by other metabolic diseases. Tumors of urogenital tract.

**Recommended literature:**

KIŇOVÁ, S., HULÍN, I., a kol. Interná medicína. Bratislava: ProLitera 2013, 1136 s. ISBN 978-80-970253-9-7

HRUŠOVSKÝ, Š. a kol. Internistická propedeutika. Bratislava: Herba, 2013. 800 s. ISBN 978-80-89171-72-9

BADA, V. Základy klinickej elektrokardiografie. Bratislava: Univerzita Komenského, 2016. 5. prepracované vydanie, 124 s. ISBN 978-80-223-4110-3.

PAYER J., a kol. Vybrané klasifikácie v internej medicíne. Bratislava: Herba, 2016. 76 s. ISBN 978-80-89631-47-5

KIŇOVÁ, S., ĎURIŠ, I., HULÍN, I. Od symptómu k diagnóze a liečbe. Bratislava: ProLitera, 2013. 1134 s. ISBN 978-80-89668-01-4

ĎURIŠ, I., HULÍN, I., BERNADIČ, M., eds. Princípy internej medicíny I-III. Bratislava: SAP, 2001. 2951 s. ISBN 80-88908-69-8.

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PAYER, J., BOROVSKÝ, M., a kol. Osteoporóza u vybraných ochorení. Bratislava: Herba, 2014. 192 s. ISBN 978-80-89631-19-3

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HEGYI, L., KRAJČÍK, Š. Geriatria. Bratislava: Herba, 2010. 601 s. ISBN 978-80-89171-73-6

KRAHULEC, B., FÁBRYOVÁ Ľ., HOLÉCZY, P., KLIMEŠ I., a kol. Klinická obezitológia. Brno: Facta Medica, s.r.o., 2013. 336 s. ISBN 978-80-904731-7-1

URBAN, Š.: Priedušková astma. Diagnostika a terapia. Bratislava: Herba, 2015, 240 s. ISBN 978-80-89-631-39-1.

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SAKALOVÁ, A., BÁTOROVÁ, A., MISTRÍK, M., a kol. Klinická hematológia. Osveta Martin 2010. 295 s. ISBN 978-80-8063-324-0

**Languages necessary to complete the course:**  
slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 932

A	B	C	D	E	FX
38,52	23,07	19,21	10,52	8,05	0,64

**Lecturers:** prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Soňa Kiňová, PhD., prof. MUDr. Peter Pont'uch, CSc., doc. MUDr. Martin Čaprnda, PhD., doc. MUDr. Denisa Čelovská, PhD., doc. MUDr. Ján Lietava, CSc., prof. MUDr. Ján Murín, CSc., doc. MUDr. Jozef Bulas, CSc., doc. MUDr. Mária Szántová, PhD., prof. MUDr. Viera Kupčová, CSc., prof. MUDr. Andrej Dukát, CSc., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Tomáš Koller, PhD., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. Silvester Kréméry, CSc.

**Last change:** 30.11.2022

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK5/L-S-VL-033/25	<b>Course title:</b> Internal Medicine 5
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 26s / 45s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 4	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK5/L-S-VL-093/22 - Internal Medicine 4	
<b>Course requirements:</b> 1/ Compulsory 100% attendance at the practicals. 2/ Pass the final credit written test (Evaluation of the test: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> <ul style="list-style-type: none"> <li>- Geriatrics and gerontology, clinical issues of older age, care of the dying patient</li> <li>- Basic concepts e of occupational medicine, assessment and recognition of occupational diseases. Basic toxicological concepts. Professional damage of respiratory tract, liver and kidneys. Diseases from the long, one-sided and excessive load. Diseases from the physical factors.</li> <li>- Basics of physiotherapy and its importance in internal medicine. Physical therapy in diseases of various systems.</li> <li>- Basics of differential diagnostics and management of the patients with “major symptoms of internal medicine” (dyspnoea, chest pain, abdominal pain, loss of consciousness)</li> <li>- Improvement of knowledge of Internal propaedeutic</li> </ul> <b>Skills:</b> <ul style="list-style-type: none"> <li>- Individual examination of the geriatric patient with regard to the specifics of older age, clinical signs of diseases in older age and specifics of treatment</li> <li>- Physical therapy in diseases of various systems</li> <li>- Complex history taking from patient with an emphasis on occupational part of history, managing a medical preventive examination according to work risk factors, interpretation of hygienic survey at work, assessing the eligibility to the specific jobs.</li> <li>- Interpretation of the results by various intoxications and preparation of the toxicological information in the Center of Toxicology</li> <li>- Cardiopulmonary resuscitation in internal medicine</li> <li>- Mamanaging of a acute ill patient with major symptoms.</li> <li>- Improvement of the skills in describing the ECG and chest X-ray</li> </ul>	



- Venipuncture, collection of venous and arterial blood, administration of i.v., i.m. and s.c. medication, measurement of blood pressure, pulse and body temperature

**Class syllabus:**

Introduction to the diagnostics, treatment and appraisal of diseases work related and diseases caused by physical and chemical factors of environment. Diagnostics and treatment of intoxications. Assessment and recognition of occupational diseases. Definition of geriatrics and gerontology. Theoretical basics of gerontology and geriatrics. Social peculiarities of older age. Physiotherapy in internal medicine – the effect of physical stimulation, heat and water therapy, inhalation therapy, massage. Balneology. Climatic therapy. Physical therapy in cardiovascular diseases, diseases of respiratory tract, digestive system, musculoskeletal system.

Problems in acute internal medicine. Pre-operative preparation – indications for surgery, risks assessment. Differential diagnostics of major symptoms in internal medicine (dyspnea, chest pain, abdominal pain, fever etc.)

**Recommended literature:**

KIŇOVÁ, S., HULÍN, I., a kol. Interná medicína. Bratislava: ProLitera 2013, 1136 s. ISBN 978-80-970253-9-7

HRUŠOVSKÝ, Š. a kol. Internistická propedeutika. Bratislava: Herba, 2013. 800 s. ISBN 978-80-89171-72-9

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KIŇOVÁ, S., HULÍN, I., et al. Choroby tráviaceho systému. Bratislava: ProLitera, 2011. 200 s. ISBN 978-80-970253-5-9

HEGYI, L., KRAJČÍK, Š. Geriatria. Bratislava: Herba, 2010. 601 s. ISBN 978-80-89171-73-6

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MISTRÍK M. Choroby červených a bielych krviniek. Bratislava ProLitera, 2014. 155 s. ISBN 978-80-89668-02-1

SAKALOVÁ, A., BÁTOROVÁ, A., MISTRÍK, M., a kol. Klinická hematológia. Osveta Martin 2010. 295 s. ISBN 978-80-8063-324-0

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Martin Čaprnda, PhD., doc. MUDr. Mária Szántová, PhD., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Ján Lietava, CSc., prof. MUDr. Ján Murín, CSc., doc. MUDr. Jozef Bulas, CSc., prof. MUDr. Viera Kupčová, CSc., prof. MUDr. Andrej Dukát, CSc., doc. MUDr. Zdenko Killinger, PhD., doc. MUDr. Tomáš Koller, PhD., prof. MUDr. Peter Pont'uch, CSc., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. Silvester Krčméry, CSc., MUDr. Momen Yaghy, PhD., MBA

**Last change:** 22.01.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK5/L-S-VL-094/25	<b>Course title:</b> Internal Medicine 6
<b>Educational activities:</b> <b>Type of activities:</b> seminar / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 36s / 364s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 16	
<b>Recommended semester:</b> 11., 12..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK5/L-S-VL-033/19 - Internal Medicine 5 or LF.IK5/L-S-VL-033/25 - Internal Medicine 5	
<b>Course requirements:</b> 1/ Compulsory 100% attendance at the practicals. 2/ Compulsory 100% attendance at the seminars. 3/ Completion of circulations at the specialized department (Dept. of haematology, Dept. of oncology, Dept. cardiology and angiology, Dept. of laboratory medicine) 4/ 5 night shifts State exam: - Practical part: practical examination of the patient (history, physical examination, diagnostic workup, draft of differential diagnostic, draft of treatment), written report of patient's examination, practical description of ECG and chest X-ray. - Oral exam: Successful answering of 3 questions.	
<b>Learning outcomes:</b> Knowledge: - Improvement of knowledge of internal medicine }cardiology, pneumology, gastroenterology, hepatology, nephrology, hematology, endocrinology, diabetology, rheumatology - Differential diagnostics in internal medicine - Preparing a therapeutic plan Skills: - Stay at the outpatient clinic, get familiar with the work of doctor at outpatient clinic (range of physician), learn the procedures for dealing with urgent and emergency situations - Stay at the Department of oncology, and managing of oncology patients. - Stay at the Department of haematology and transfusiology. - Stay at the Department of cardiology and angiology. - Stay at the Department of laboratory medicine. - Stay at the intensive care unit. - Practical work at internal department in the range of resident doctor: presence at morning meeting, morning round, examining of the patients, reporting at the professor's round, medical report writing, preparing diagnostic and therapeutically procedures, case history, differential diagnostics	

- Improvement of propaedeutic examinations and their use in daily work.
- Evaluation of the results of various examination methods. Improvement of diagnostic and standard therapeutic procedures in internal medicine. Get familiar with all the standard non-invasive methods used in internal medicine.
- Cardiopulmonary resuscitation in internal medicine
- Improvement of skills in describing the ECG and chest X-ray
- Improvement of practical skills (venepuncture, collection of venous and arterial blood, administration of i.v., i.m and s.c. medication, catheterisation of urinary bladder, rectal examination etc.)
- Pre-operative examination and assessment of operation risk

### **Class syllabus:**

Practical work as physician – morning meeting, morning round, examining of patients, reporting to the professor, medical record writing, preparing diagnostic and therapeutical procedures, improving differential diagnostics thinking. Stay at the outpatient department; get familiar with the work of the doctor at outpatient clinic and with the work in urgent situations. Stay at the department of oncology, haematology and transfusiology, cardiology and angiology, and laboratory medicine. Stay at intensive care unit. Cardiopulmonary resuscitation, defibrillation. Improvement of propaedeutical examinations and their use in the diagnosis workup. Evaluation of the results of auxiliary examinations. Improvement in diagnostic and standard therapeutic practice in internal medicine. Get familiar with standard non-invasive methods used in internal medicine. Independent evaluation of X-ray (chest, abdomen, urography, cholecystography, irigography). Independent evaluation of ECG. Catheterization of urinary bladder. Collection of biologic material. Venepunction, administration of injections and infusions. Abdominal puncture. Pleural puncture and examination of punctate. Assistance by various diagnostic and therapeutic procedures. Seminars: shock and hypotension. Hypertension and its differential diagnostics. Heart failure. Peripheral vascular diseases. Hemotherapy principles. Transplantation of bone marrow. Hemostasis. Respiratory insufficiency. Acute conditions in gastroenterology. Differential diagnostics of diarrhea. Liver insufficiency. Acute conditions in endocrinology. Osteoporosis. Novelties in rheumatology. Renal insufficiency. Principles of diabetes mellitus therapy and its acute complications. Principles of antibiotic's treatment. Disorders of consciousness. Intoxications.

### **Recommended literature:**

KIŇOVÁ, S., HULÍN, I., a kol. Interná medicína. Bratislava: ProLitera 2013, 1136 s. ISBN 978-80-970253-9-7

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PAYER, J., KILLINGER Z., a kol. Osteoporóza. Bratislava: Herba, 2012, 256 s. ISBN 978-80-89171-94-1

BOROVSKÝ, M., PAYER, J., a kol. Gynekologická endokrinológia. Bratislava: Herba, 2016. 248 s. ISBN 978-80-89631-57-3

PAYER, J., BOROVSKÝ, M., a kol. Osteoporóza u vybraných ochorení. Bratislava: Herba, 2014. 192 s. ISBN 978-80-89631-19-3

MOJTO, V.: Vybrané kapitoly z klinickej diabetológie. Bratislava: Asklepios, 2016, 115 s. ISBN 978-80-7167-182-4.

KRČMÉRY, S., DÚBRAVA, M., KRČMÉRY, V., HROMEC, J., a kol. Antiinfekčná chemoterapia pre prax. Bratislava: Univerzita Komenského, 2011. 460 s. ISBN 978-80-223-2995-8.

KIŇOVÁ, S., HULÍN, I., et al. Choroby tráviaceho systému. Bratislava: ProLitera, 2011. 200 s. ISBN 978-80-970253-5-9

HEGYI, L., KRAJČÍK, Š. Geriatria. Bratislava: Herba, 2010. 601 s. ISBN 978-80-89171-73-6

KRAHULEC, B., FÁBRYOVÁ L., HOLÉCZY, P., KLIMEŠ I., a kol. Klinická obezitológia. Brno: Facta Medica, s.r.o., 2013. 336 s. ISBN 978-80-904731-7-1

URBAN, Š.: Priedušková astma. Diagnostika a terapia. Bratislava: Herba, 2015, 240 s. ISBN 978-80-89-631-39-1.

SOUČEK, M. a kol. Vnitřní lékařství. Praha: Grada, 2011. 1808 s. ISBN 978-80-247-2110-1

JAMESON, L., FAUCI, A., KASPER, D., HAUSER, S., LONGO, D., LOSCALZO J. Harrison's Principles of Internal Medicine 20th ed. New York: McGraw-Hill, 2018. ISBN 978-1-25-964404-7

GOLDMAN, L. et al. Goldman's cecil medicine, 25th edition. Philadelphia: Elsevier Saunders, 2016. 3024 pp. ISBN 978-1-4577-5017-7

KUMAR, P., CLARK, M. Kumar and Clark's Clinical Medicine, 9th edition. Elsevier, 2016. 1456 pp. ISBN: 978-0-70020-660-16

SWARTZ, MH. Textbook of physical diagnosis: history and examination, 7th edition. Philadelphia: Elsevier Saunders 2014. ISBN: 978-0-3232-2148-1

COLLEDGE, N.R. et al. Davidson's Principles and Practice of Medicine. Edinburgh: Churchill Livingstone, 2010. 1376 s. ISBN 978-0-7020-3085-7

MISTRÍK M. Choroby červených a bielych krviniek. Bratislava ProLitera, 2014. 155 s. ISBN 978-80-89668-02-1

SAKALOVÁ, A., BÁTOROVÁ, A., MISTRÍK, M., a kol. Klinická hematológia. Osveta Martin 2010. 295 s. ISBN 978-80-8063-324-0

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Mária Szántová, PhD., doc. MUDr. Peter Jackuliak, PhD., MPH, prof. MUDr. Ján Murín, CSc., doc. MUDr. Jozef Bulas, CSc., doc. MUDr. Martin Čaprnda, PhD., doc. MUDr. Ján Lietava, CSc., doc. MUDr. Ľudovít Lukáč, PhD., prof. MUDr. Viera Kupčová,

CSc., prof. MUDr. Peter Pont'uch, CSc., prof. MUDr. Andrej Dukát, CSc., doc. MUDr. Tomáš Koller, PhD., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. Silvester Kréméry, CSc., prof. MUDr. Angelika Bátorová, CSc., doc. MUDr. Eva Goncalvesová, CSc., MUDr. Momen Yaghy, PhD., MBA
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<b>Last change:</b> 22.01.2025
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<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH
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## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK5/L-S-VL-102/19	<b>Course title:</b> Internal Medicine – practice
<b>Educational activities:</b> <b>Type of activities:</b> practice <b>Number of hours:</b> <b>per week: per level/semester:</b> 80s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Compulsory 100% attendance at the practice in the hospital.	
<b>Learning outcomes:</b> Knowledge: - deepening the acquired knowledge of internal propaedeutic and internal medicine in daily clinical practice Skills: - work as a doctor resident in the internal medicine department (in the inpatient and outpatient department) - complete admission and discharge of the patient (taking history, clinical examination, preparing diagnostic and therapeutic plan, writing medical records) - participation during the head physicians rounds - improvement in practical propaedeutic investigation methods - practical evaluation of ECG findings and X-rays of the chest and abdomen - assistance and performance of practical diagnostic and therapeutic procedures (sternal, thoracic, abdominal, hepatic) and in various more complex examinations (gastroscopy, colonoscopy, bronchoscopy, ERCP), ultrasonography examination of the abdomen and vessels, - administration of various types of injections, infusions, transfusions (under the guidance of a doctor), blood sampling for various examinations, collection of urine, sputum and other biological material - - work during night shifts and ER shifts	
<b>Class syllabus:</b> During this internship, students become acquainted with the work of a resident doctor. They work in the inpatient and outpatient departments. The student makes all necessary documentation during the admission and discharge of the patient (history taking, writing medical records for new patients and daily records of patients assigned to him, about 4 - 5 patients). All work is performed under the guidance of the head physician. In addition, the student participates during head physicians rounds. The student learns about the main pathological physical findings, in order to gain as much as possible from inspection, percussion, palpation and auscultation during the practice. Throughout the internship, students have to practically evaluate ECG findings and X-rays. Students are also	

involved in practical diagnostic and therapeutic procedures - administration of various types of injections, infusions, transfusions (under the guidance of a doctor), blood collection for various examinations, and collection of urine, sputum and other biological material. They participate in various punctures (sternal, thoracic, abdominal, hepatic) and in various more complex examinations (gastroscopy, bronchoscopy), or newer examination methods and procedures. Students should perform 3 night shifts.
<b>Recommended literature:</b> KIŇOVÁ, S., HULÍN, I., a kol. Interná medicína. Bratislava: ProLitera 2013, 1136 s. ISBN 978-80-970253-9-7 HRUŠOVSKÝ, Š. a kol. Internistická propedeutika. Bratislava: Herba, 2013. 800 s. ISBN 978-80-89171-72-9 BADA, V. Základy klinickej elektrokardiografie. Bratislava: Univerzita Komenského, 2016. 5. prepracované vydanie, 124 s. ISBN 978-80-223-4110-3. PAYER J., a kol. Vybrané klasifikácie v internej medicíne. Bratislava: Herba, 2016. 76 s. ISBN 978-80-89631-47-5 KIŇOVÁ, S., ĎURIŠ, I., HULÍN, I. Od symptómu k diagnóze a liečbe. Bratislava: Prolitera, 2013. 1134 s. ISBN 978-80-89668-01-4
<b>Languages necessary to complete the course:</b> slovak
<b>Notes:</b>
<b>Past grade distribution</b> Total number of evaluated students: 1613
ABS0
100,0
<b>Lecturers:</b> prof. MUDr. Juraj Payer, PhD., MPH, doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Mária Szántová, PhD.
<b>Last change:</b> 30.11.2022
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK_1/L-S-VL-035/18	<b>Course title:</b> Internal Propedeutics
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 37s / 50s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 6	
<b>Recommended semester:</b> 5.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.AÚ/L-S-VL-003/17 - Anatomy 3 and LF.FyÚ/L-S-VL-014/17 - Physiology 2	
<b>Course requirements:</b> 1/ Compulsory 100% attendance at the practicals. 2/ Pass the final credit written test (Evaluation of the test: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less). Successfully passed test (minimal score 60%) is required for the admission to the oral part of the exam 3/ Pass the oral exam (successful answering of all questions). The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> <ul style="list-style-type: none"> <li>- History of internal medicine. Content and mission of internal medicine.</li> <li>- Parts of patient's history and their importance in the differential diagnostics.</li> <li>- Symptoms and syndromes of various system diseases and their importance in internal propaedeutic.</li> <li>- Basics of physical examination of the patient }inspection, palpation, percussion, auscultation, examination of head, neck, chest, abdomen and limbs)</li> <li>- ECG – basic parts of ECG curve, basic physiological and pathological findings on ECG</li> <li>- X-ray of the chest and abdomen – description, basic findings.</li> <li>- Theoretical basis of laboratory exams in internal medicine, review, indications and evaluation of the results.</li> <li>- Theoretical basis of special examinations in internal medicine (ultrasound, endoscopy etc.).</li> <li>- Theoretical basis of diagnostic and therapeutic procedures in internal medicine (puncture of ascites, pleural puncture, puncture of bone marrow, urine examination etc).</li> </ul> <b>Skills:</b> <ul style="list-style-type: none"> <li>- First contact with the patient and history taking.</li> <li>- Basis of clinical examination of the patient – status praesens generalis and status praesens localis (examination of head, neck, chest, abdomen and limbs).</li> <li>- Individual examination of the patient and medical record writting.</li> <li>- Basic description of ECG</li> <li>- Basic description of chest and abdomen X-ray</li> </ul>	

- Venipuncture, collection of venous and arterial blood, administration of i.v., i.m. and s.c. medication, measurement of blood pressure, pulse and body temperature

**Class syllabus:**

Patient's history – general (current disease, personal and family history, epidemiological and social history, lifestyle, habits). Patient's history – special (according to the disease), main clinical symptoms of the diseases. Status praesens generalis. Status praesens localis. Physical examination (inspection, palpation, percussion, auscultation) of the head, neck, chest, abdomen, limbs and musculoskeletal system. Evaluation of ECG. X-ray diagnostics and imaging techniques. Laboratory examinations in internal medicine. Special examination in internal medicine. Individual examination of the patient and medical record writing.

**Recommended literature:**

KIŇOVÁ, S., HULÍN, I., a kol. Interná medicína. Bratislava: ProLitera 2013, 1136 s. ISBN 978-80-970253-9-7

HRUŠOVSKÝ, Š. a kol. Internistická propedeutika. Bratislava: Herba, 2013. 800 s. ISBN 978-80-89171-72-9

BADA, V. Základy klinickej elektrokardiografie. Bratislava: Univerzita Komenského, 2016. 5. prepracované vydanie, 124 s. ISBN 978-80-223-4110-3.

PAYER J., a kol. Vybrané klasifikácie v internej medicíne. Bratislava: Herba, 2016. 76 s. ISBN 978-80-89631-47-5

KIŇOVÁ, S., ĎURIŠ, I., HULÍN, I. Od symptómu k diagnóze a liečbe. Bratislava: ProLitera, 2013. 1134 s. ISBN 978-80-89668-01-4

ĎURIŠ, I., HULÍN, I., BERNADIČ, M., eds. Princípy internej medicíny I-III. Bratislava: SAP, 2001. 2951 s. ISBN 80-88908-69-8.

KLENER, P. et al. Vnitřní lékařství. Praha: Karolinum, Galén, 2011. 4. preprac. a dopl. vyd. 1174 s. ISBN 978-80-7262-705-9.

ČEŠKA, R., TESAR, V., DÍTĚ, P., ŠTULC, T., a kol. Interna. Praha: Triton, 2010, 855 s. ISBN 978-80-7387-423-0

ŠTVRTINOVÁ, V. a kol. Bolest končatin. Bratislava: SAP, 2012, 165 s. ISBN 978-80-89607-05-1

PAYER, J., KILLINGER Z., a kol. Osteoporóza. Bratislava: Herba, 2012, 256 s. ISBN 978-80-89171-94-1

BOROVSKÝ, M., PAYER, J., a kol. Gynekologická endokrinológia. Bratislava: Herba, 2016. 248 s. ISBN 978-80-89631-57-3

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MOJTO, V.: Vybrané kapitoly z klinickej diabetológie. Bratislava: Asklepios, 2016, 115 s. ISBN 978-80-7167-182-4.

KRČMÉRY, S., DÚBRAVA, M., KRČMÉRY, V., HROMEC, J., a kol. Antiinfekčná chemoterapia pre prax. Bratislava: Univerzita Komenského, 2011. 460 s. ISBN 978-80-223-2995-8.

KIŇOVÁ, S., HULÍN, I., et al. Choroby tráviaceho systému. Bratislava: ProLitera, 2011. 200 s. ISBN 978-80-970253-5-9

HEGYI, L., KRAJČÍK, Š. Geriatria. Bratislava: Herba, 2010. 601 s. ISBN 978-80-89171-73-6

KRAHULEC, B., FÁBRYOVÁ Ľ., HOLÉCZY, P., KLIMEŠ I., a kol. Klinická obezitológia. Brno: Facta Medica, s.r.o., 2013. 336 s. ISBN 978-80-904731-7-1

URBAN, Š.: Priedušková astma. Diagnostika a terapia. Bratislava: Herba, 2015, 240 s. ISBN 978-80-89-631-39-1.

SOUČEK, M. a kol. Vnitřní lékařství. Praha: Grada, 2011. 1808 s. ISBN 978-80-247-2110-1

JAMESON, L., FAUCI, A., KASPER, D., HAUSER, S., LONGO, D., LOSCALZO J.  
Harrison's Principles of Internal Medicine 20th ed. New York: McGraw-Hill, 2018. ISBN 978-1-25-964404-7

GOLDMAN, L. et al. Goldman's Cecil medicine, 25th edition. Philadelphia: Elsevier Saunders, 2016. 3024 pp. ISBN 978-1-4577-5017-7

KUMAR, P., CLARK, M. Kumar and Clark's Clinical Medicine, 9th edition. Elsevier, 2016. 1456 pp. ISBN: 978-0-70020-660-16

SWARTZ, MH. Textbook of physical diagnosis: history and examination, 7th edition. Philadelphia: Elsevier Saunders 2014. ISBN: 978-0-3232-2148-1

COLLEDGE, N.R. et al. Davidson's Principles and Practice of Medicine. Edinburgh: Churchill Livingstone, 2010. 1376 s. ISBN 978-0-7020-3085-7

MISTRÍK M. Choroby červených a bielych krviniek. Bratislava ProLitera, 2014. 155 s. ISBN 978-80-89668-02-1

SAKALOVÁ, A., BÁTOROVÁ, A., MISTRÍK, M., a kol. Klinická hematológia. Osveta Martin 2010. 295 s. ISBN 978-80-8063-324-0

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 2121

A	B	C	D	E	FX
41,35	24,38	17,4	9,01	7,26	0,61

**Lecturers:** prof. MUDr. Juraj Payer, PhD., MPH, doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Mária Szántová, PhD., prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Jozef Bulas, CSc., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Ján Lietava, CSc., doc. MUDr. Ľudovít Lukáč, PhD., prof. MUDr. Ján Murín, CSc., doc. MUDr. Martin Čaprnda, PhD., doc. MUDr. Denisa Čelovská, PhD., prof. MUDr. Viera Kupčová, CSc., prof. MUDr. Andrej Dukát, CSc., doc. MUDr. Tomáš Koller, PhD.

**Last change:** 30.11.2022

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-160/19	<b>Course title:</b> Introduction to Health Management
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Method of education: combined (on-site, on-line)	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 90% attendance at the lectures Final exam: - completing the task on the assigned topic - oral exam: 1 question Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> The aim of the course is to provide students with basic knowledge and skills from healthcare management and thus enhance the professional competencies of future medical doctors. Knowledge: After successful completion of the course student will be able to: - Understand the importance and functions of management and explain the basic managerial terms and processes. - Discuss the role of the management in healthcare. - Understand the role of organizational and human resource management in the healthcare. - Understand the core concepts and measurement tools of quality and safety in health care and role of organizational culture. - Describe the new approaches and strategies for process improvement and problem solving in healthcare. Skills: After successful completion of the course student will be able to : - Apply systemic, professional, and creative approach to identify and address the problems and challenges in health care facilities.	

- Demonstrate and apply knowledge of strategic planning and decision making in healthcare organizations.
- To collect data and analyze the external and internal environment of health care organization.
- Apply new managerial tools and models in management of healthcare facilities
- Work effectively in team and apply principles of holistic leadership.

**Class syllabus:**

Management – basic terminology, functions, history. Healthcare management. External environment and internal environment of healthcare organizations. Financing health care. Health systems: structure, typology and benchmarking. Healthcare organizations: characteristics, types, forms. Organizational structure. Organizational culture (typology). Mobbing and discrimination at workplace and its prevention. Strategic management and planning. Mission, goals and tasks of organization. SWOT analysis. Functions, roles and skills of manager. Managerial processes. Leadership. Management styles. Work groups, teamwork. Managerial communication. Human resource management. Assessment and motivation of employees in health care organization. Patient safety and risk management in health care organizations. Quality management in health care. Lean management in healthcare (Lean Six Sigma ). New trends and challenges in healthcare management.

**Recommended literature:**

Ozorovský V., Vojteková I. a kol. Zdravotnícky manažment a financovanie zdravotníctva. Bratislava: Wolters Kluwer, 2016.344s. ISBN 978-80-8168-522-4

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 124

A	B	C	D	E	FX
91,94	4,03	3,23	0,81	0,0	0,0

**Lecturers:** doc. MUDr. Vojtech Ozorovský, CSc., doc. MUDr. Michaela Kostičová, PhD., MPH, PhDr. Ivana Vojteková, PhD., Mgr. et Mgr. Silvia Capíková, PhD., MUDr. Mgr. Kristína Králiková, MUDr. Angelika Szalayová, MSc.

**Last change:** 27.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-159-4/25	<b>Course title:</b> Introduction to Medical Law
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 90% attendance at the lectures <b>Exam:</b> Written test (minimum 60%). Test score: A: 91 – 100%, B: 81 – 90%, C: 73 – 80%, D: 66 – 72%, E: 60 – 65%, Fx: 59% - 0%	
<b>Learning outcomes:</b> The aim of the course is to provide students with basic knowledge and skills in the field of legal regulation of health care provision and the exercise of the medical profession, and thus contribute to the strengthening of professional legal awareness and to the development of professional competencies of future doctors. <b>Knowledge:</b> After successful completion of the course student will be able to: <ul style="list-style-type: none"> <li>- understand and explain the meaning and functions of law in health care,</li> <li>- understand the principles of legal liability in medicine and be able to distinguish the assumptions of the emergence of different types of legal liability in medicine,</li> <li>- know the possibilities of legal self-defense of a doctor in the event of medico-legal disputes,</li> <li>- can characterize the rights of patients and the system of their protection in the Slovak Republic,</li> <li>- knows the basic legal regulations that apply to the organization of health care, compensation for damage incurred in the provision of health care, the exercise of the profession of doctor and his position in the health system,</li> <li>- give an overview of the legal framework of selected ethical issues of contemporary medicine.</li> </ul> <b>Skills:</b> After successful completion of the course student will be able to : <ul style="list-style-type: none"> <li>- systematically, professionally and in accordance with the law and human rights standards approach the identification and solution of problems in the provision of health care and prevent the emergence of medico-legal disputes,</li> <li>- explain the legal context of clinical practice guidelines,</li> <li>- identify and search for legislation regulating the provision of health care and its changes,</li> <li>- understand and interpret texts of legislation and explain legal concepts in medical law,</li> </ul>	

- - develop professional legal knowledge, which allows him to effectively apply the acquired knowledge in decision-making processes in the provision of health care.

### **Class syllabus:**

Medical law: system, sources and functions, basic concepts.

- Searching for legal information on the Internet, basic orientation in legislation, searching for formal sources of law in the Collection of Laws of the Slovak Republic.
- Legal prerequisites for the exercise of the medical profession, specialization studies and certification training, residency studies, agreement on raising qualifications.
- Urgent healthcare, rights and obligations of healthcare providers, informed consent and exemptions.
- Confidentiality of health professionals, medical disclosure, protection of patient personal data, GDPR.
- Legal aspects of keeping medical records in the context of eHealth.
- Human rights -based approach in medicine. The principle of non-discrimination in access to healthcare. Rights and obligations of patients and people with a communicable disease.
- Health insurance, provision of health care in EU countries.
- Legal aspects of selected ethical issues related to the provision of health care, such as domestic violence, euthanasia, transplantation, fertility regulation, biomedical research, clinical trials, etc.
- Working conditions of doctors.
- Civil and labor liability in the exercise of the medical profession and compensation for damage,
- Criminal liability in the exercise of the medical profession.
- Administrative liability in the provision of healthcare.

### **Recommended literature:**

Vybraná aktuálna legislatíva a judikatúra, odporúčané v priebehu semestra.

ALIEVA D., SCHENK J., TAKÁČ M.: Umelá inteligencia: sociálne a etické problémy. 1.vyd.

Univerzita Komenského v Bratislave, 2024. 166s. ISBN 978-80-223-5793-7 (tlač)

ISBN 978-80-223-5794-4 (online) [print] [e-kniha]

CAPÍKOVÁ, S. Právne súvislosti zdravotnej starostlivosti o pacienta s postihnutím sluchu.

s. 90-170 In: Beňo, Pavol, Tarcsiová, Darina, Capíková, Silvia: Komunikácia so sluchovo postihnutými v zdravotníctve a sociálnej práci. Druhé, rozšírené a prepracované vyd., Trnava:

Typi Universitatis Tyrnaviensis, 2014. ISBN 978-80-8082-786-1.

Dubová, A., Kostičová M., Roussier L. Právo na ochranu zdravia ľudí bez domova. Právne aspekty dostupnosti zdravotnej starostlivosti ľudí bez domova s dlhmi na zdravotnom poistení.

1.vyd. Bratislava : Nota Bene , 2020. 71s., ISBN 978-80-973855-3-8.

FREEEL, L.: Zamestnávanie zdravotníckych pracovníkov: podmienky zamestnávania

zdravotníckych pracovníkov v Slovenskej republike. 1. vyd. Bratislava: Univerzita Komenského v Bratislave. Právnická fakulta UK, 2020. 99 s. [online]. ISBN 978-80-7160-553-9

KÁDEK, Pavol: Právna zodpovednosť v medicíne a zdravotníctve. 1. vyd. Bratislava: Wolters Kluwer. 2017. 216 s. ISBN 978-80-8168-650-4.

MESARČÍK, M. ,GYURÁSZ, Z. : Umelá inteligencia a právna úprava zdravotníctva v Slovenskej republike. 1. vydanie. Bratislava: Univerzita Komenského v Bratislave, Právnická fakulta, 2020. 100s. ISBN: 978-80-7160-574-4.

NOVÁKOVÁ, M. a kol.: Pracovné právo 1. 1. vyd. Bratislava: Wolters Kluwer SR, 2024. 235 s. ISBN 978-80-571-0676-0.

OZOROVSKÝ, V. et al. Sociálne lekárstvo. Druhé aktualiz. a dopl. vyd. Bratislava: SAP, 2018. 226 s. ISBN 978-80-89607-68-6.

OZOROVSKÝ V., VOJTEKOVÁ I. a kol. Zdravotnícky manažment a financovanie zdravotníctva. Bratislava: Wolters Kluwer, 2016. 344s. ISBN 978-80-168-523-1

<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> Mgr. et Mgr. Silvia Capíková, PhD., doc. MUDr. Michaela Kostíčová, PhD., MPH, doc. MUDr. Vojtech Ozorovský, CSc., MUDr. Mgr. Kristína Králiková, JUDr. Pavol Kádek, PhD., MPH					
<b>Last change:</b> 19.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-159-5/25	<b>Course title:</b> Introduction to Medical Law
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 90% attendance at the lectures <b>Exam:</b> Written test (minimum 60%). Test score: A: 91 – 100%, B: 81 – 90%, C: 73 – 80%, D: 66 – 72%, E: 60 – 65%, Fx: 59% - 0%	
<b>Learning outcomes:</b> The aim of the course is to provide students with basic knowledge and skills in the field of legal regulation of health care provision and the exercise of the medical profession, and thus contribute to the strengthening of professional legal awareness and to the development of professional competencies of future doctors. <b>Knowledge:</b> After successful completion of the course student will be able to: - understand and explain the meaning and functions of law in health care, - understand the principles of legal liability in medicine and be able to distinguish the assumptions of the emergence of different types of legal liability in medicine, - know the possibilities of legal self-defense of a doctor in the event of medico-legal disputes, - can characterize the rights of patients and the system of their protection in the Slovak Republic, - knows the basic legal regulations that apply to the organization of health care, compensation for damage incurred in the provision of health care, the exercise of the profession of doctor and his position in the health system, - give an overview of the legal framework of selected ethical issues of contemporary medicine. <b>Skills:</b> After successful completion of the course student will be able to : - systematically, professionally and in accordance with the law and human rights standards approach the identification and solution of problems in the provision of health care and prevent the emergence of medico-legal disputes, - explain the legal context of clinical practice guidelines, - identify and search for legislation regulating the provision of health care and its changes, - understand and interpret texts of legislation and explain legal concepts in medical law,	

- - develop professional legal knowledge, which allows him to effectively apply the acquired knowledge in decision-making processes in the provision of health care.

### **Class syllabus:**

Medical law: system, sources and functions, basic concepts.

- Searching for legal information on the Internet, basic orientation in legislation, searching for formal sources of law in the Collection of Laws of the Slovak Republic.
- Legal prerequisites for the exercise of the medical profession, specialization studies and certification training, residency studies, agreement on raising qualifications.
- Urgent healthcare, rights and obligations of healthcare providers, informed consent and exemptions.
- Confidentiality of health professionals, medical disclosure, protection of patient personal data, GDPR.
- Legal aspects of keeping medical records in the context of eHealth.
- Human rights -based approach in medicine. The principle of non-discrimination in access to healthcare. Rights and obligations of patients and people with a communicable disease.
- Health insurance, provision of health care in EU countries.
- Legal aspects of selected ethical issues related to the provision of health care, such as domestic violence, euthanasia, transplantation, fertility regulation, biomedical research, clinical trials, etc.
- Working conditions of doctors.
- Civil and labor liability in the exercise of the medical profession and compensation for damage,
- Criminal liability in the exercise of the medical profession.
- Administrative liability in the provision of healthcare.

### **Recommended literature:**

Vybraná aktuálna legislatíva a judikatúra, odporúčané v priebehu semestra.

ALIEVA D., SCHENK J., TAKÁČ M.: Umelá inteligencia: sociálne a etické problémy. 1.vyd.

Univerzita Komenského v Bratislave, 2024. 166s. ISBN 978-80-223-5793-7 (tlač)

ISBN 978-80-223-5794-4 (online) [print] [e-kniha]

CAPÍKOVÁ, S. Právne súvislosti zdravotnej starostlivosti o pacienta s postihnutím sluchu.

s. 90-170 In: Beňo, Pavol, Tarcsiová, Darina, Capíková, Silvia: Komunikácia so sluchovo postihnutými v zdravotníctve a sociálnej práci. Druhé, rozšírené a prepracované vyd., Trnava:

Typi Universitatis Tyrnaviensis, 2014. ISBN 978-80-8082-786-1.

Dubová, A., Kostičová M., Roussier L. Právo na ochranu zdravia ľudí bez domova. Právne aspekty dostupnosti zdravotnej starostlivosti ľudí bez domova s dlhmi na zdravotnom poistení.

1.vyd. Bratislava : Nota Bene , 2020. 71s., ISBN 978-80-973855-3-8.

FREEEL, L.: Zamestnávanie zdravotníckych pracovníkov: podmienky zamestnávania

zdravotníckych pracovníkov v Slovenskej republike. 1. vyd. Bratislava: Univerzita Komenského v Bratislave. Právnická fakulta UK, 2020. 99 s. [online]. ISBN 978-80-7160-553-9

KÁDEK, Pavol: Právna zodpovednosť v medicíne a zdravotníctve. 1. vyd. Bratislava: Wolters Kluwer. 2017. 216 s. ISBN 978-80-8168-650-4.

MESARČÍK, M. ,GYURÁSZ, Z. : Umelá inteligencia a právna úprava zdravotníctva v Slovenskej republike. 1. vydanie. Bratislava: Univerzita Komenského v Bratislave, Právnická fakulta, 2020. 100s. ISBN: 978-80-7160-574-4.

NOVÁKOVÁ, M. a kol.: Pracovné právo 1. 1. vyd. Bratislava: Wolters Kluwer SR, 2024. 235 s. ISBN 978-80-571-0676-0.

OZOROVSKÝ, V. et al. Sociálne lekárstvo. Druhé aktualiz. a dopl. vyd. Bratislava: SAP, 2018. 226 s. ISBN 978-80-89607-68-6.

OZOROVSKÝ V., VOJTEKOVÁ I. a kol. Zdravotnícky manažment a financovanie zdravotníctva. Bratislava: Wolters Kluwer, 2016. 344s. ISBN 978-80-168-523-1

<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> Mgr. et Mgr. Silvia Capíková, PhD., doc. MUDr. Michaela Kostíčová, PhD., MPH, doc. MUDr. Vojtech Ozorovský, CSc., MUDr. Mgr. Kristína Králiková, JUDr. Pavol Kádek, PhD., MPH					
<b>Last change:</b> 19.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-158/19	<b>Course title:</b> Introduction to Philosophy of Holistic Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the practicals - 1 written test (minimum 60% of correct answers) - power point presentation on selected topic Final exam: - theoretical exam: 1 question Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: - the student will gain an overview of the most important philosophical and thought systems devoted to a person from a holistic, i.e. bio-psycho-social perspective, which at the same time were and are the basis for different perspectives on treatment in its various modalities - the student will get an overview of the most important ethical questions that have been solved by people during treatment in different cultures - an overview of different perspectives on treatment in different cultures Skills: - a better understanding of the mechanisms that control human decision-making in situations that are closely related to human health and thereby also improving the quality of such decision-making	
<b>Class syllabus:</b> Lectures: Introduction to the subject, basic terms, brief overview of history. Selected aspects of medicine in ancient Egypt, Mesopotamia, Greece and the Roman Empire. Medieval thinkers and their view of medicine. Philosophical starting points and basic principles of Chinese medicine. Selected chapters from Indian philosophy and interactions with medical art, Vedas, Upanishads, Bhagavad Gita, Advait Vedananta. Ján Ámos Komenský – The labyrinth of man and his view on the origin of	

diseases and their treatment. Philosophical foundations of medicine in our territory in the pre-Christian period. Principles of sympathetic medicine. Psychosomatic medicine. Selected European philosophical trends and their views on illness and treatment - from Socrates to Nikolai Losskij.

#### **Recommended literature:**

ČERNÁ, Z. et al.: Duchovní prameny života. Praha: Vyšehrad, 1997.  
 ČERNOHOUS, A. (tr.): Filokalie I., Olomouc: Refugium Velehrad-Roma, 2019.  
 DYNDÁ, J.(tr., ed.): Slovanské pohanství ve středověkých latinských pramenech. Praha: Scriptorium, 2017.  
 FEYERABEND, P.: Against method. London: Verso, 1993.  
 FOUCAULT, M. (tr. MARCELLI, M. – MARCELLIOVÁ, M.): Slova a veci. Bratislava: Kalligram, 2004.  
 GÁLIK, S.: Filozofia a mystika. Bratislava : IRIS, 2006.  
 HUANG, K. – HUANG, R. (tr. ŽLÁBKOVÁ, J.): I-Ťing. Praha: Pragma, 1987.  
 JOHNSON, O. S.: Study of Chinese Alchemy. Shanghai: The Commercial Press, 1928.  
 JUNG, C. G. (tr. BABKA, P.): Mysterium coniunctionis, I. Praha: Malvern, 2019.  
 KAPLAN, A.: Sefer Yetzirah. Boston – York Beach: Weiser Books, 1997.  
 KRÁL, O.: Čínska filozofie. Lásenice: Maxima, 2005.  
 KRÁL, O.: I-Ťing – Kniha proměn. Lásenice: Maxima, 2008.  
 KRÁL, O.: Kniha mlčení. Praha: Galerie Zdeněk Sklenář, 2015.  
 LAO-C' (tr. CHANG, K. Y. – RICHARD, F. H.): TAO-TE-ŤING. Bratislava: CAD Press, 2003.  
 PARACELUS (tr. ŠPRENGER, J.): AZOTH. Praha: Půdorys, 2007.  
 PATOČKA, P.(tr.): C. G. JUNG výbor z díla VI. Brno: Nakladatelství Tomáše Janečka, 2006.  
 RÁDHAKRISHNAN S. (tr., com.): Bhagavadgītā. London: George Allen & Unwin, 1963.  
 RADHAKRISHNAN, S.: Indian Philosophy vol. I., New York: The Macmillan Company, 1958.  
 RADHAKRISHNAN, S.: Indian Philosophy vol. II., New York: The Macmillan Company, 1958.  
 ZBAVITEL, D. (tr.): Upanišady. Praha: DharmaGaia, 2004.  
 a podobne.

#### **Languages necessary to complete the course:**

Slovak

#### **Notes:**

#### **Past grade distribution**

Total number of evaluated students: 44

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** MUDr. Ján Štvrtina, PhD.

**Last change:** 19.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚMB/L-S-VL-068/25	<b>Course title:</b> Introduction to Science
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 4.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Successful completion of a written test (at least 60% correct answers) Evaluation of the test: A: 91-100%, B: 81-99%, C: 73-80%, D: 66-72%, E: 60-65%, Fx: 59% and less	
<b>Learning outcomes:</b> Knowledge: - The principles of evaluation of the quality of scientific research will be explained, the students will gain knowledge about the possibilities of searching and retrieving relevant information as well as about the evaluation of information sources. - Students will acquire knowledge about the principles of scientific work in biomedicine, the planning, evaluation and critical evaluation. - Students will become familiar with the requirements for master theses and dissertations, they will learn basics of writing of scientific publications. Skills: - Students will learn how to find and evaluate information in bibliographic databases. - Students will be able to correctly apply the most frequently used statistical tests. - Students will be able to critically evaluate a scientific article in terms of its content, form and source. - Students will be able to interpret the results of scientific work.	
<b>Class syllabus:</b> Scientific principles in biomedicine. Information sources and their quality. Bibliographic databases and search. Descriptive statistics. Statistical testing. Scientific texts and diploma theses. Abstract, citations and references. Design of experiments. Presentation and interpretation of results. Biases and frauds in science.	
<b>Recommended literature:</b> Celec P: Ako publikovať v biomedicínskych vedách. Univerzita Komenského, Bratislava, ISBN: 9788022333047, 2012	

Zelinková Z: Úvod do vedeckej práce pre študentov medicíny a doktorandov medicínskych odborov. Univerzita Komenského, Bratislava, ISBN: 9788022333115, 2013  
Hulín I et al.: Úvod do vedeckého bádania 2. Dialógy, úvahy a zamyslenia. SAP, Bratislava, ISBN: 8089104614, 2005  
Meško D et al.: Akademická príručka. Osveta, Martin, ISBN: 9788080633929, 2013  
Dumont, J: English Communication for Scientists. Cambridge, MA: NPG Education, 2010  
Hlavatý T: Základy klinického výskumu. Grada, Bratislava, ISBN: 9788024757131, 2016

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. MUDr. RNDr. Roman Gardlík, PhD., doc. MUDr. Ing. Peter Celec, DrSc., doc. MUDr. Mgr. Július Hodosy, PhD., doc. RNDr. Barbora Vlková, PhD., doc. MUDr. Katarína Šebeková, DrSc., doc. RNDr. Ľubomíra Tóthová, PhD.

**Last change:** 22.01.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-161-4/19	<b>Course title:</b> Introduction to the History of Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance - written test (minimum 60% of correct answers) and essay on chosen topic Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> A comprehensive look at medicine through the eyes of history, using the most interesting medical practices of the past. Provide medical students with a general overview of the history of medicine and health care. Knowledge: Periodisation of the history of medicine, knowledge of the most important doctors and discoveries related to the history of medicine. Skills: Orientation in space and time, critical thinking, working with historical sources and scientific literature.	
<b>Class syllabus:</b> Introducing the topic; History of medicine as a scientific discipline. Prehistoric medicine through the eyes of paleopathology; Advantages/disadvantages of the Neolithization (Neolithic revolution). Papyrus as a source Common and unusual medical procedures; Medicine in Mesopotamia. Tradition of Chinese and Indian Medicine; Past - present – future? Ancient Greece - the cradle of scientific medicine? Hippocrates, the Father of Medicine? Medicine of Ancient Rome; Galenos, his predecessors and followers. Eastern and Western healthcare systems; Parallels and differences; Monastic medicine Christianity as a social religion. Medieval Islamic medicine; Islam as a social religion. Schola Medica Salernitana and Septem artes liberales; First European universities; The most famous faculties of medicine in Early modern period. Renaissance and Enlightenment not only in medicine; Human anatomy and Andreas Vesalius; Scientific medicine of the 19th century; Soul and body; Women in science, women in medicine. Questions and answers or what it was all about.	



**Recommended literature:**

BENIAK, Milan – TICHÝ, Miloš. Dejiny Lekárskej fakulty, I. časť. Bratislava 1992.  
ECKART, Wolfgang E. Geschichte der Medizin. Heidelberg 2005.  
FALISOVÁ, Anna – LENGYELOVÁ, Tünde. Bioterapia optikou histórie. Bratislava 2013.  
GONZÁLEZ-CRUSSI, Francisco. Medicina. Stručné dejiny. Bratislava 2008.  
JUNAS, Ján – BOKESOVÁ-UHEROVÁ, M.: Dejiny medicíny a zdravotníctva. Martin 1985.  
OZOROVSKÝ, Vojtech (ed.). Dejiny Lekárskej fakulty Univerzity Komenského, II. časť. Bratislava 2021.  
PAVLÍKOVÁ, Ľudmila. Dejiny medicíny a zdravotníctva ako vedný odbor a učebný predmet na lekárske fakultách. In MARSINA, Richard (ed.). Studia historica Tyrnaviensia II. Trnava 2002, s. 63 – 67.  
PORTER, Roy. Dějiny medicíny. Od starověku po současnost. Praha 2013.  
PRIORESCHI, Plinio. A History of Medicine, vol. I: Primitive and Ancient Medicine. Omaha 1996.  
PRIORESCHI, Plinio. A History of Medicine, vol. IV: Byzantine and Islamic Medicine. Omaha 2001.  
PRIORESCHI, Plinio. A History of Medicine, vol. V: Medieval Medicine. Omaha 2003.  
ŘÍHOVÁ, Milada et al. Kapitoly z dějin lékařství. Praha 2005.  
SEDLÁČKOVÁ, Eulália – HLÁVKOVÁ, Zdena. Sprievodca dejinami medicíny. Bratislava 1995.  
SCHOTT, Heinz et al. Kronika medicíny. Bratislava 1994.  
SIRAI, Nancy G. Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice. Chicago 2009.

**Languages necessary to complete the course:**

Slovak

**Notes:****Past grade distribution**

Total number of evaluated students: 58

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** Mgr. Matej Gogola, PhD.

**Last change:** 19.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-161-5/19	<b>Course title:</b> Introduction to the History of Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance - written test (minimum 60% of correct answers) and essay on chosen topic Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> A comprehensive look at medicine through the eyes of history, using the most interesting medical practices of the past. Provide medical students with a general overview of the history of medicine and health care. Knowledge: Periodisation of the history of medicine, knowledge of the most important doctors and discoveries related to the history of medicine. Skills: Orientation in space and time, critical thinking, working with historical sources and scientific literature.	
<b>Class syllabus:</b> Introducing the topic; History of medicine as a scientific discipline. Prehistoric medicine through the eyes of paleopathology; Advantages/disadvantages of the Neolithization (Neolithic revolution). Papyrus as a source Common and unusual medical procedures; Medicine in Mesopotamia. Tradition of Chinese and Indian Medicine; Past - present – future? Ancient Greece - the cradle of scientific medicine? Hippocrates, the Father of Medicine? Medicine of Ancient Rome; Galenos, his predecessors and followers. Eastern and Western healthcare systems; Parallels and differences; Monastic medicine Christianity as a social religion. Medieval Islamic medicine; Islam as a social religion. Schola Medica Salernitana and Septem artes liberales; First European universities; The most famous faculties of medicine in Early modern period. Renaissance and Enlightenment not only in medicine; Human anatomy and Andreas Vesalius; Scientific medicine of the 19th century; Soul and body; Women in science, women in medicine. Questions and answers or what it was all about.	

**Recommended literature:**

BENIAK, Milan – TICHÝ, Miloš. Dejiny Lekárskej fakulty, I. časť. Bratislava 1992.

ECKART, Wolfgang E. Geschichte der Medizin. Heidelberg 2005.

FALISOVÁ, Anna – LENGYELOVÁ, Tünde. Bioterapia optikou histórie. Bratislava 2013.

GONZÁLEZ-CRUSSI, Francisco. Medicina. Stručné dejiny. Bratislava 2008.

JUNAS, Ján – BOKESOVÁ-UHEROVÁ, M.: Dejiny medicíny a zdravotníctva. Martin 1985.

OZOROVSKÝ, Vojtech (ed.). Dejiny Lekárskej fakulty Univerzity Komenského, II. časť. Bratislava 2021.

PAVLÍKOVÁ, Ľudmila. Dejiny medicíny a zdravotníctva ako vedný odbor a učebný predmet na lekárske fakultách. In MARSINA, Richard (ed.). Studia historica Tyrnaviensia II. Trnava 2002, s. 63 – 67.

PORTER, Roy. Dějiny medicíny. Od starověku po současnost. Praha 2013.

PRIORESCHI, Plinio. A History of Medicine, vol. I: Primitive and Ancient Medicine. Omaha 1996.

PRIORESCHI, Plinio. A History of Medicine, vol. IV: Byzantine and Islamic Medicine. Omaha 2001.

PRIORESCHI, Plinio. A History of Medicine, vol. V: Medieval Medicine. Omaha 2003.

ŘÍHOVÁ, Milada et al. Kapitoly z dějin lékařství. Praha 2005.

SEDLÁČKOVÁ, Eulália – HLÁVKOVÁ, Zdena. Sprievodca dejinami medicíny. Bratislava 1995.

SCHOTT, Heinz et al. Kronika medicíny. Bratislava 1994.

SIRAI, Nancy G. Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice. Chicago 2009.

**Languages necessary to complete the course:**

Slovak

**Notes:****Past grade distribution**

Total number of evaluated students: 22

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** Mgr. Matej Gogola, PhD.**Last change:** 19.05.2025**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-162-4/25	<b>Course title:</b> Introduction to the Labor Law
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Individual study: 12 hours/semester Method of education: combined	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> a) 80% attendance at the lectures b) 1 written test – minimal 60% of correct answers Test evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> The aim of the course is to introduce students to the issues of the labor law status of healthcare workers and their legal protection through the means of labor law. Knowledge - Students will: <ol style="list-style-type: none"> <li>1. Understand selected institutes of labor law related to the establishment and termination of employment, specifics of student employment, working conditions, and workplace safety. They will know the rights and obligations of employees and employers and the scope of labor law liability of doctors in the performance of their profession.</li> <li>2. Recognize various forms of discrimination in labor relations and methods of preventing discrimination and workplace violence.</li> <li>3. Understand the reasons and methods for terminating employment with an employee.</li> <li>4. Gain an overview of judicial and extrajudicial mechanisms for resolving labor disputes, including mediation, collective bargaining, and the conclusion of collective agreements.</li> </ol> Skills - Students will be able to: <ol style="list-style-type: none"> <li>1. Apply selected institutes of labor law related to the establishment and termination of employment, specifics of student employment, working conditions, and prevention of workplace injuries. They will effectively enforce the rights and obligations of employees and employers and address issues of labor law liability of doctors in the performance of their profession.</li> </ol>	

2. Identify the factual elements of discrimination in labor relations and propose solutions and prevention methods for discrimination and workplace violence. 3. Compare methods of terminating employment. 4. Explain various judicial and extrajudicial mechanisms for resolving individual and collective labor disputes, including collective bargaining.					
<b>Class syllabus:</b> Labor Law (concept, system, sources). Employment relationships and similar legal relationships. Employment relationship, its establishment, change, termination. Employment contract and pre-contractual relationships. Agreements on work performed outside the employment relationship. Termination of employment. Principle of equal treatment and protection against discrimination in labor relations. Rights and obligations of employees, work discipline. Working conditions, remuneration of healthcare workers, working hours and rest periods, overtime work, vacation. Liability of healthcare workers in labour law, compensation for damages, vicarious liability. Labor law liability of employers, employee claims. Workplace violence, workplace safety, work injury, occupational disease, employee claims. Collective labor law relationships, collective bargaining, collective agreements.					
<b>Recommended literature:</b> 1) Právne predpisy odporúčané v priebehu kurzu, najmä Zákonník práce. 2) NOVÁKOVÁ, Mária a kol.: Pracovné právo 1. 1. vyd. Bratislava: Wolters Kluwer SR, 2024. 235 s. ISBN 978-80-571-0676-0. 3) FREEL, Lenka: Zamestnávanie zdravotníckych pracovníkov: podmienky zamestnávania zdravotníckych pracovníkov v Slovenskej republike. 1. vyd. Bratislava: Univerzita Komenského v Bratislave. Právnická fakulta UK, 2020. 99 s., ISBN 978-80-7160-553-9 4) OZOROVSKÝ, V. et al. Sociálne lekárstvo. Druhé aktualiz. a dopl. vyd. Bratislava: SAP, 2018. 226 s. ISBN 978-80-89607-68-6. 5) KÁDEK, Pavol: Právna zodpovednosť v medicíne a zdravotníctve. 1. vyd. Bratislava: Wolters Kluwer. 2017. 216 s. ISBN 978-80-8168-650-4					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b> The course has a limited capacity of 25 students for the whole course.					
<b>Past grade distribution</b> Total number of evaluated students: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> Mgr. et Mgr. Silvia Capíková, PhD., MUDr. Mgr. Kristína Králiková, JUDr. Pavol Kádek, PhD., MPH					
<b>Last change:</b> 19.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-162-5/25	<b>Course title:</b> Introduction to the Labor Law
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Individual study: 12 hours/semester Method of education: combined	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> a) 80% attendance at the lectures b) 1 written test – minimal 60% of correct answers Test evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> The aim of the course is to introduce students to the issues of the labor law status of healthcare workers and their legal protection through the means of labor law. Knowledge - Students will: <ol style="list-style-type: none"> <li>1. Understand selected institutes of labor law related to the establishment and termination of employment, specifics of student employment, working conditions, and workplace safety. They will know the rights and obligations of employees and employers and the scope of labor law liability of doctors in the performance of their profession.</li> <li>2. Recognize various forms of discrimination in labor relations and methods of preventing discrimination and workplace violence.</li> <li>3. Understand the reasons and methods for terminating employment with an employee.</li> <li>4. Gain an overview of judicial and extrajudicial mechanisms for resolving labor disputes, including mediation, collective bargaining, and the conclusion of collective agreements.</li> </ol> Skills - Students will be able to: <ol style="list-style-type: none"> <li>1. Apply selected institutes of labor law related to the establishment and termination of employment, specifics of student employment, working conditions, and prevention of workplace injuries. They will effectively enforce the rights and obligations of employees and employers and address issues of labor law liability of doctors in the performance of their profession.</li> </ol>	

2. Identify the factual elements of discrimination in labor relations and propose solutions and prevention methods for discrimination and workplace violence.
3. Compare methods of terminating employment.
4. Explain various judicial and extrajudicial mechanisms for resolving individual and collective labor disputes, including collective bargaining.

**Class syllabus:**

Labor Law (concept, system, sources). Employment relationships and similar legal relationships. Employment relationship, its establishment, change, termination. Employment contract and pre-contractual relationships. Agreements on work performed outside the employment relationship. Termination of employment. Principle of equal treatment and protection against discrimination in labor relations. Rights and obligations of employees, work discipline. Working conditions, remuneration of healthcare workers, working hours and rest periods, overtime work, vacation. Liability of healthcare workers in labour law, compensation for damages, vicarious liability. Labor law liability of employers, employee claims. Workplace violence, workplace safety, work injury, occupational disease, employee claims. Collective labor law relationships, collective bargaining, collective agreements.

**Recommended literature:**

- 1) Právne predpisy odporúčané v priebehu kurzu, najmä Zákonník práce.
- 2) NOVÁKOVÁ, Mária a kol.: Pracovné právo 1. 1. vyd. Bratislava: Wolters Kluwer SR, 2024. 235 s. ISBN 978-80-571-0676-0.
- 3) FREEL, Lenka: Zamestnávania zdravotníckych pracovníkov: podmienky zamestnávania zdravotníckych pracovníkov v Slovenskej republike. 1. vyd. Bratislava: Univerzita Komenského v Bratislave. Právnická fakulta UK, 2020. 99 s., ISBN 978-80-7160-553-9
- 4) OZOROVSKÝ, V. et al. Sociálne lekárstvo. Druhé aktualiz. a dopl. vyd. Bratislava: SAP, 2018. 226 s. ISBN 978-80-89607-68-6.
- 5) KÁDEK, Pavol: Právna zodpovednosť v medicíne a zdravotníctve. 1. vyd. Bratislava: Wolters Kluwer. 2017. 216 s. ISBN 978-80-8168-650-4

**Languages necessary to complete the course:**

Slovak

**Notes:**

The course has a limited capacity of 25 students for the whole course.

**Past grade distribution**

Total number of evaluated students: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** Mgr. et Mgr. Silvia Capíková, PhD., MUDr. Mgr. Kristína Králiková, JUDr. Pavol Kádek, PhD., MPH

**Last change:** 19.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚCJ/L-S-VL-038/25	<b>Course title:</b> Latin Medical Terminology 1
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the practicals, 2 written tests: one midterm (50 points, makes 15% of the overall assessment) and one final test (100 points, makes 85% of the overall assessment). Test assessment: A: 94 – 100 %, B: 87 – 93 %, C: 80 – 86 %, D: 70 – 79 %, E: 60 – 69 %, Fx: 59 % – 0%. The overall grade (minimum of 60%) is determined by the grades obtained in the midterm (15%) and final (85%) test and is their weighted average.	
<b>Learning outcomes:</b> Knowledge: Acquisition of basic medical terminology with an emphasis on anatomical nomenclature. Mastery of basic grammar to understand the structure of specialized anatomical terms. Knowledge of terms of Latin and Greek origin, which are the basis of professional medical terminology. Skills: Language competence enabling the highest possible level of obtaining information and knowledge from professional sources; the ability to understand the structure of Latin anatomical terms and to use them correctly; ability to use Latin medical terminology in oral speech or professional text.	
<b>Class syllabus:</b> Introduction to the study of Latin. Brief historical overview. Pronunciation, basic grammatical concepts, declension of nouns, overview of declensions, structure of multi-word terms. First Latin and Greek declension. Adjective of the first declension. Second Latin and Greek declension. Adjective of the second declension. Third declension – consonant stems. Third declension – vowel stems: masculine and feminine. Third declension - vowel stems: neuter. Fourth and fifth declination. Adjectives of the third declension. Comparison of adjectives.	
<b>Recommended literature:</b> Bujalková, M., Šimon, F.: Terminologia Medica Latina. Martin: Osveta 2019. 202 p. ISBN 978-80-8063-449-0	
<b>Languages necessary to complete the course:</b> Slovak	



<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> PhDr. Tomáš Hamar, PhD., Mgr. Angela Škovierová, PhD., Mgr. Oľga Vaneková, PhD., Mgr. Melinda Vasil'ová, PhD., Mgr. Ema Pavl'áková, PhD., Mgr. Mária Šibalová, PhD., Ing. Janka Bábelová, PhD., Mgr. Radoslav Ďurajka, PhD., Mgr. Lucia Lauková, PhD., Mgr. Marek Šibal, PhD., Mgr. Nicola Sipekiová, PhD.						
<b>Last change:</b> 22.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚCJ/L-S-VL-039/16	<b>Course title:</b> Latin Medical Terminology 2
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚCJ/L-S-VL-038/25 - Latin Medical Terminology 1 or LF.ÚCJ/L-S-VL-038/16 - Latin Medical Terminology 1	
<b>Course requirements:</b> 100% attendance at the practicals, 2 written tests: one midterm (50 points, makes 15% of the overall assessment) and one exam test (200 points, makes 85% of the overall assessment). Test assessment: A: 94 – 100 %, B: 87 – 93 %, C: 80 – 86 %, D: 70 – 79 %, E: 60 – 69 %, Fx: 59 % – 0%. The overall grade (minimum of 60%) is determined by the grades obtained in the midterm (15%) and final (85%) test and is their weighted average.	
<b>Learning outcomes:</b> Knowledge: Acquisition of basic medical terminology with an emphasis on clinical nomenclature. Learning the basics of word formation. Acquiring knowledge from clinical terminology, creation of professional terms. Reading, analyzing, and creating medical reports. Common pharmaceutical terms and connections. Skills: Language competence enabling the highest possible level of obtaining information and knowledge from professional sources; ability to understand the structure of Latin and Greek anatomical and clinical terms; ability to understand medical reports; the ability to create medical reports; competence to use professional terms correctly; ability to use Latin medical terminology in oral speech or professional text.	
<b>Class syllabus:</b> Anatomical nomenclature and clinical terminology (differences). Repetition and consolidation of declensions. Comparison of adjectives. Third Greek declension – consonant and vowel. Formation of clinical terms with suffixes -itis, -osis, -oma. Numerals and verb forms in medical terminology. Recipe construction and recipe examples. Practicing writing recipes. Latin and Greek prefixes. Latin and Greek suffixes. Adaptation of Greek names of diseases. Adverbs in medical terminology. Compound word in medical terminology. Pathological-anatomical diagnosis, examples. The Hippocratic Oath. Latin memorabilia.	
<b>Recommended literature:</b>	

Bujalková, M., Šimon, F.: Terminologia Medica Latina. Martin: Osveta 2019. 202 p. ISBN 978-80-8063-449-0

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 3149

A	B	C	D	E	FX
56,56	26,29	9,37	5,18	2,32	0,29

**Lecturers:** PhDr. Tomáš Hamar, PhD., Mgr. Angela Škovierová, PhD., Mgr. Oľga Vaneková, PhD., Mgr. Melinda Vasil'ová, PhD., Mgr. Ema Pavl'áková, PhD., Mgr. Mária Šibalová, PhD., Ing. Janka Babelová, PhD., Mgr. Radoslav Ďurajka, PhD., Mgr. Lucia Lauková, PhD., Mgr. Marek Šibal, PhD., Mgr. Nicola Sipekiová, PhD.

**Last change:** 23.05.2024

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLChB/L-S-VL-041/25	<b>Course title:</b> Medical Biochemistry 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 36s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 3.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% participation in practical exercises and seminars, elaboration of protocols Course evaluation: credit test - 24 questions 4 answers + 6 creative questions (achieve at least 80% points) Test rating: A: 97-100%, B: 93-96%, C: 89-92%, D: 85-88%, E: 80-84%, Fx: 79% and less	
<b>Learning outcomes:</b> <b>Knowledge:</b> - acquisition of basics of metabolic processes - acquisition of basic knowledge of cell energy, carbohydrate, lipid, amino acid and nucleotide metabolism - gaining basic knowledge about regulation metabolic processes <b>Skills:</b> - acquisition of basic skills from laboratory practice - acquire the ability to understand the basics of metabolism and molecular mechanisms of functioning of organs and tissues of the human body - acquisition of the ability to evaluate the results of laboratory tests in relation to potential pathological changes in the body	
<b>Class syllabus:</b> Biological oxidations and their importance in the body. Energy production in the cell - terminal oxidation. Principles of allosteric and hormonal regulation in the body. Intermediate metabolism - compartmentation and energy balance of metabolic pathways. Carbohydrate metabolism (glycolysis, gluconeogenesis, glycogenesis and glycogenolysis, pentose metabolism). Influence of substrate and oxygen availability on energy production for the organism. Maintenance and disorders of glycemic control. Metabolism of lipids, phospholipids and steroids (FA synthesis, FA oxidation, TAG synthesis, lipolysis, ketogenesis, phospholipid and cholesterol synthesis). Lipoprotein function and metabolism, hyperlipoproteinemia. Amino acid and protein metabolism. Ammonia detoxification - organ and cell compartmentation. Disorders of ammonia metabolism. Tetrapyrrole metabolism. The role of the kidneys in maintaining homeostasis and excretion of waste products.	

<b>Recommended literature:</b> Kolektív: Lekárska biochémia 1, UK Bratislava 2016 Kolektív: Lekárska biochémia. Praktická a seminárna časť, UK Bratislava 2016 Dobrota a kolektív: Lekárska biochémia, Osveta, 2016						
<b>Languages necessary to complete the course:</b> Slovak						
<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Ladislav Turecký, CSc., prof. RNDr. Jana Muchová, PhD., doc. Ing. Mária Chomová, PhD., doc. MUDr. Viera Rendeková, CSc., doc. RNDr. Eva Uhlíková, CSc., prof. Ing. Ingrid Žitňanová, PhD., RNDr. Milada Laššánová, CSc., Ing. Lucia Laubertová, PhD., doc. RNDr. Monika Ďurfinová, PhD., RNDr. Zuzana Országhová, PhD., Mgr. Martina Horváthová, PhD., Mgr. Ľubomír Kuračka, PhD.						
<b>Last change:</b> 22.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLChB/L-S-VL-042/17	<b>Course title:</b> Medical Biochemistry 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 36s / 36s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 6	
<b>Recommended semester:</b> 4.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚLChB/L-S-VL-037/16 - Medical Chemistry and LF.ÚLChB/L-S-VL-041/25 - Medical Biochemistry 1 or LF.ÚLChB/L-S-VL-041/17 - Medical Biochemistry 1	
<b>Course requirements:</b> 100% participation in practical exercises and seminars, elaboration of protocols Course evaluation: - written part – 50 questions (achieve at least 80% points) - oral part – 2 questions (metabolism + functional biochemistry) Test rating: A: 97-100%, B: 93-96%, C: 89-92%, D: 85-88%, E: 80-84%, Fx: 79% and less	
<b>Learning outcomes:</b> <b>Knowledge:</b> - to gain knowledge about metabolic processes in the cells of the human body as a basis for understanding the function of organs - to gain knowledge for understanding the biochemical basis of the function of tissues and organs of the human body - gain knowledge about the molecular mechanisms of regulation of organ function from gene expression to the level of the whole organism - to gain knowledge about the relationships of metabolic processes in tissues as a basis for understanding the context important for the needs of clinical biochemistry <b>Skills:</b> - acquire basic laboratory skills for examination by bed side chemistry methods and in a reference laboratory - the ability to understand the functioning of the tissues and organs of the human body at the molecular level - on the basis of an understanding of the function of tissues and organs at the molecular level, to acquire the ability to understand changes in molecular processes in pathological circumstances and to understand the molecular mechanisms of drugs action	
<b>Class syllabus:</b> Nucleotide and nucleic acid metabolism. Proteosynthesis. Gene expression, apoptosis and regulation of cell cycle. Signal transmission mechanisms, autocrine and paracrine regulation. Endocrine regulation - insulin, glucagon, thyroid hormones, steroid hormones, adrenal medulla	

hormones, protein hormones. The role of the autonomous nervous system in regulatory processes. CNS biochemistry - specific characteristics of metabolism in CNS tissue and their relation to CNS function and structure. Plasma proteins. Biochemistry of connective tissue, bone and adipose tissue. Biochemistry of muscle and muscle contraction. Biochemistry of kidneys and pathological components of urine. Liver biochemistry and xenobiochemistry. GIT biochemistry and digestion. Acid-base balance. Biochemistry of minerals and trace elements. Biochemistry of diabetes. Clinically important enzymes.

**Recommended literature:**

Kolektív: Lekárska biochémia 1, UK Bratislava 2016

Turecký L.: Lekárska biochémia 2, Asklepios Bratislava 2014

Kolektív: Lekárska biochémia. Praktická a seminárna časť, UK Bratislava 2016

Dobrota a kolektív: Lekárska biochémia, Osveta, 2016

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 2720

A	B	C	D	E	FX
17,24	15,77	21,73	17,13	13,75	14,37

**Lecturers:** prof. MUDr. Ladislav Turecký, CSc., doc. Ing. Mária Chomová, PhD., doc. MUDr. Viera Rendeková, CSc., doc. RNDr. Eva Uhlíková, CSc., RNDr. Milada Laššánová, CSc., doc. RNDr. Monika Ďurfinová, PhD., Ing. Lucia Laubertová, PhD.

**Last change:** 29.11.2022

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLFB/L-S-VL-040/16	<b>Course title:</b> Medical Biophysics
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 36s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 8	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the practicals - 2 written test (minimum 60% of correct answers) - 14 protocols from practicals must be measured <b>Final exam:</b> -written test (min. 60 %) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. - oral theoretical exam: 2 question from theoretical and practical lessons	
<b>Learning outcomes:</b> 1. To provide the main knowledge about basic physical phenomenon occurring in human body under health and illness. 2. To teach the prevention from damage by physical factors and to study their targeted elimination 3. To gain the both theoretical and practical knowledge and skills in application of diagnostics and therapeutics methods in medicine.	
<b>Class syllabus:</b> Lectures: Biophysics of the cell. Active and passive transport through cell membrane. Diffusion, osmosis, medical application. Physical properties of cell membrane, organs and tissues. Registration and propagation of the signal. Resting membrane potential, action potential. Processing and diagnostic use of proper and induced biosignals. Biophysics of blood circulation. Heart as a pump. Blood flow. Blood pressure, principles of measurement. Thermal radiation. Thermography. Liquid crystals. Biophysics of breathing. External and internal breathing. Sound. Biophysics of sound analyser. Origin of human voice. Physical characteristic of human voice. Therapeutic use of interaction of physical factors with human body. Application of electrical impulses in medicine. Electrical safety. Physical ground and use of ultrasound in medicine. Doppler effect. Biophysical grounds of optical methods in medicine. Sources of light. Reflection, refraction and diffraction of light. Optical and electron microscope. Biophysics of eye. Concept of electric dipole and double-layer. Effect of electric current on human body. Alternating and direct electric current and their	



application. Biophysics of tissues and organs. Biophysics of locomotion system. Biophysics of bones, tendons and joints. Biophysics of muscles, muscle contraction. Biophysics of excitation processes. Electrical properties of cells, tissues and organs. Electric signals measured on the body surface (ECG, EEG, EMG, ERG). Structure of matter from biophysical point of view. Kinds of radioactive radiation. Radioactive decay. Interaction of ionising and non-ionising radiation with environment. Dosimetry. Medical use of radiation. Radiometry and photometry. Use of ionising radiation in medicine. Imaging methods using radionuclides. X-rays and imaging methods. Basics of thermodynamics. First, second and third thermodynamic law. Thermodynamics of biological systems. Thermodynamic properties of biological systems. Molecular biophysics. Interactions among particles (chemical bonds). Creation of molecules. Properties of water. Gases and condensed systems. Physical properties of biological liquids and gases. Fluids flow. Basic laws for gases.

**PRACTICAL TRAININGS:**

Safety and health protection rules, physical quantities, conversion of physical units, measurement errors and uncertainties, tables and graphs, basic statistics, microclimatic factors, thermometry, illuminance, visual acuity, refractometry, spectrophotometry, stalagmometry, viscometry, ECG analysis, electrical heart axis, anthropometry, body composition, blood pressure measurement, ultrasonography imaging, blood flow velocity measurement, radiation absorption, dosimetry

**Recommended literature:**

1. Hrazdira I, Morstein V, Škorpíková J. Lekárska biofyzika a prístrojová technika. Brno, Neptun, 2006, ISBN 80-86850-01-3
2. Navrátil L, Rosina J. Medicínska biofyzika. Praha, Grada, 2019, ISBN 9788027102099
3. Kozlíková K, Trnka M. Úvod do spracovania a prezentovania dát v medicíne. Košice, Equilibria, 2018 ISBN 978-80-8142-234-7

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 3165

A	B	C	D	E	FX
14,5	34,12	34,76	13,68	2,34	0,6

**Lecturers:** doc. RNDr. Martin Kopáni, PhD., doc. RNDr. Mgr. Katarína Kozlíková, CSc., doc. RNDr. Pavol Vitovič, PhD., RNDr. Zuzana Balázsová, PhD., RNDr. Eva Kráľová, PhD., PhD. Michal Trnka, PhD., RNDr. Jaroslav Varchola, PhD., doc. RNDr. Beata Čunderlíková, PhD., doc. RNDr. Silvia Dulanská, PhD.

**Last change:** 01.12.2022

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLChB/L-S-VL-037/16	<b>Course title:</b> Medical Chemistry
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 36s / 36s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 7	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Conditions for the recognition of the practical part of the teaching: - 100% attendance at practical exercises - completion of laboratory protocols - passing weekly tests (minimum 50% score required on each test) Final exam: written form Part A - progressive online test (minimum 60% score required to proceed to parts B and C) Part B - calculations questions Part C - two creative questions Evaluation of the exam (Part B + C): A: 93 - 100%, B: 86 - 92%, C: 80 - 85%, D: 75 - 79%, E: 70 - 74%, Fx: 69% and below.	
<b>Learning outcomes:</b> <b>Knowledge:</b> - Acquiring knowledge about the relationship between the structure, properties, and functions of biologically significant compounds such as carbohydrates, lipids, proteins, nucleic acids, and vitamins, which enable effective study and comprehensive understanding of metabolic processes in the human body and their regulation under physiological and pathophysiological conditions. - Gaining knowledge about the biological function and possible toxicity of inorganic and organic compounds. <b>Skills:</b> - Developing the ability to understand the mechanisms of reactions occurring in cells. - Acquiring practical experience in the field of physicochemical and biochemical methods used in laboratory and clinical practice. - Ability to independently create a clear record of performed laboratory procedures and to evaluate and correctly interpret the obtained results.	
<b>Class syllabus:</b> <b>Lectures:</b> Chemical composition of living systems, function of biogenic elements in the body. Toxicologically significant elements and their compounds, therapeutic chelating agents. Oxidative stress, its	

consequences on the body, and antioxidant systems in the body. Dispersed systems in relation to the organism, types of dispersed systems. Colligative properties of solutions. Significance of osmotic pressure in the body, edema. Use of dialysis in medicine.

Kinetics and equilibrium of chemical and biochemical processes. Protolytic reactions, acid-base balance of the internal environment of the body. Oxidation-reduction processes as the basis of biological oxidations.

Organism as a thermodynamic system, acquisition, transformation, and utilization of energy in biological systems. Characterization of the structure of bioorganic compounds and their biochemically significant reactions. Properties and biochemically important reactions of natural substances:

Saccharides - monosaccharides, their structure, reactions, and biological significance. Derivatives of monosaccharides and their biological significance. Non-enzymatic glycation in conditions of diabetes mellitus. Disaccharides. Homo- and heteroglycans, proteoglycans, and glycoproteins.

Lipids - classification of lipids, their composition, and biological function. Chemical composition and function of biological membranes, regulatory functions of steroids and eicosanoids. Lipoproteins, their classification, and function. Terpenes.

Amino acids - structure of proteinogenic amino acids, their properties, and basic reactions occurring within their metabolism. Peptide hormones and other biologically active peptides. Proteins - classification, properties, and biological function.

Nucleic acids - nucleotides and their components. DNA, RNA - structure, properties, and biological significance. Structure of biologically significant free nucleotides. Mutations and mutagenic agents.

Enzymes as biocatalysts - structure and biological function, kinetics, and mechanism of their action. Activation and inhibition of enzymes as the basis for the regulation of biochemical processes.

Importance and utilization of enzymes in medicine. Vitamins and their coenzyme forms as enzyme cofactors.

Seminars:

Physicochemical methods used in chemical and biochemical laboratories. Spectrophotometry, chromatographic methods, potentiometry, and centrifugation. Biogenic elements and their biological significance, toxic elements and their compounds. Properties and significance of free radicals in physiological and pathophysiological processes of the body, antioxidants. Composition and properties of solutions, diffusion, dialysis, osmosis, and osmotic pressure. Colloidal osmotic pressure, its significance in the body. Calculations of composition, osmolarity, and ion strength of solutions. pH and its significance for the course of chemical processes. Biochemical significance of protolytic reactions, buffering systems, and maintenance of acid-base balance in the body. Calculations of pH of acids, bases, and buffer solutions. Characterization of the structure of bioorganic compounds. Biochemically significant reactions of organic compounds. Structure of mono-, di-, and polysaccharides. Significant reactions of monosaccharides. Lipids - classification, composition, and function in the body. Biochemical reactions of amino acids, significant peptides, overview of proteins and their biological functions. Thermodynamic calculations of biochemical reaction quantities. Enzymes - kinetics of enzyme reactions, enzyme specificity. Regulation of enzyme activity. Michaelis-Menten constant, its significance. Calculation of enzyme activity.

Practical exercises:

Principles of physicochemical methods and their practical application in laboratory diagnostics (spectrophotometry, potentiometry, chromatography). Effect of metal ions on the elimination of free radicals in biological material. Monitoring of osmotic fragility of erythrocytes. Determination of the acidity constant of weak monobasic acids. Qualitative and quantitative determination of significant physiological and pathological metabolites such as urea, glucose, ketones, and total lipids. Thin-layer and gel chromatography of amino acids and proteins. Monitoring the effect of activators and inhibitors on enzyme activity. Determination of Michaelis-Menten constant of enzymes.

<b>Recommended literature:</b> Muchová J. a kol.: Lekárska chémia, UK Bratislava, 2012, 295s. Vysokoškolská učebnica. ISBN 978-80-223-3199-9 Dobrota D. a kol.: Lekárska biochémia, Martin, Osveta, 2012, 723 s. Vysokoškolská učebnica. ISBN 978-80-806-3293-9					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 3280					
A	B	C	D	E	FX
7,71	18,81	27,29	20,34	17,44	8,41
<b>Lecturers:</b> prof. RNDr. Jana Muchová, PhD., prof. Ing. Zdeňka Ďuračková, PhD., doc. PharmDr. Vladimír Jakuš, CSc., prof. Ing. Ingrid Žitňanová, PhD., RNDr. Lucia Andrežalová, PhD., Mgr. Monika Dvořáková, PhD., doc. Ing. Mária Chomová, PhD., prof. MUDr. Ladislav Turecký, CSc., RNDr. Zuzana Országhová, PhD., RNDr. Zuzana Paduchová, PhD., Ing. Miriama Ježovičová, PhD., Mgr. Mária Janubová, PhD.					
<b>Last change:</b> 17.06.2024					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-244/24	<b>Course title:</b> Medical Ethics
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 1., 2..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the practicals Students come prepared for the seminar. They complete assignments such as study of selected readings, written analysis, or argumentative essays. They actively participate in the learning activities. Written test (minimum 60%). Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> The student can <ul style="list-style-type: none"> <li>- explain the basic concepts of ethics, medical ethics and philosophy of medicine;</li> <li>- explain the basic moral principles and requirements in the medical practice, the role of professionalism in medicine;</li> <li>- explain what is meant by a holistic view of the human person, respect for human dignity during human ontogeny and respect for patient autonomy;</li> <li>- identify current ethical problems in biomedicine and ways of addressing them;</li> <li>- identify key aspects of moral decision-making in clinical practice.</li> </ul> <b>Skills:</b> The student is able to: <ul style="list-style-type: none"> <li>- demonstrate critical thinking and basic moral reasoning necessary for decision-making in medical practice;</li> <li>- apply relevant scientific facts, and basic anthropological and moral theories relevant to the analysis of ethical issues in biomedicine;</li> <li>- identify and analyse an ethical problem in medical practice and justify their proposed solution;</li> <li>- apply basic moral principles and theories in solving selected case studies from medical practice;</li> <li>- demonstrate the ability to apply basic moral principles and requirements in simulation-based medical training.</li> </ul>	

**Class syllabus:**

Lectures: Medicine as a human practice at the intersection of the natural sciences and the humanities. The interconnectedness of philosophy, science and medicine. Ethics, morality and professionalism of the physician. Moral reasoning and decision making in medical practice. Human rights and patients' rights. Ethical problems at the beginning of human life. Ethical issues at the end of life. Ethics and new technologies in medicine.

Practicals: Medicine, its essence and goals. The concept of health, disease and the goals of medicine. Historical overview of the development of medical ethics. Moral norms, ethics and law. The basic moral requirements and principles in medical work. Legitimacy of medical intervention. Autonomy, responsibility and conscience of the physician. The physician's judgment and the basic models of ethical reasoning (utilitarian ethics, deontological ethics, principlist ethics, virtue ethics). The ethos of the physician and the medical virtues. Basic conceptions of personhood, their implications in modern medicine. Human being, human dignity, identity and individuality. Historical transformations and contemporary models of the doctor-patient relationship. Respect for the physical integrity and autonomy of the patient. Informed consent and patient rights. The patient and his/her competence in decision-making. The main principles of optimal communication with the patient and his/her family. The shared decision-making model. Surrogate decision-making. Medical confidentiality. Truth and hope as part of the therapeutic process. Ethical codes, declarations, conventions. Ethical problems at the beginning of human life. Ethical issues in reproductive medicine. Ethical issues in molecular biology and genetics. Ethical issues in fetal medicine, neonatology and pediatrics. Critical situations and decision-making in emergency medicine and intensive care medicine. Ethics at the end of life - suffering, pain, dying and death. Palliative and hospice care. Euthanasia and physician-assisted suicide. Justice and allocation of limited resources in health care. Pandemic triage. Ethical issues in surgery and transplantology. Ethics of biomedical research, cellular research and therapy. Selected aspects of medical care for vulnerable populations. Artificial intelligence in medicine.

**Recommended literature:**

Trizuljaková, J. et al. Medicínska etika: Vybrané kapitoly. Bratislava: Univerzita Komenského 2016. 229 s.

Williams, J.R. Príručka lekárskej etiky (z ang. prekladu World Medical Association Medical Ethics Manual). Preklad a odborná revízia Glasa, J. et al. Slovenská lekárska spoločnosť 2008. 132 s.

Vácha, M., Kúnigová, R., Mauer, M. Základy moderní lékařské etiky. Praha: Portál 2012. 304 s.

Ptáček, R., Bartůněk P. et al. Etika a komunikace v medicíně. Praha: Grada 2011. 528 s.

Jonsen, A.R., Siegler, M., Winslade, W.J. Klinická etika. Praktický přístup k etickým rozhodnutím v klinické medicíně. Praha: Stanislav Juhaňák - Triton 2019. 232 s.

**Languages necessary to complete the course:**

Slovak

**Notes:****Past grade distribution**

Total number of evaluated students: 389

A	ABS0	B	C	D	E	FX
25,71	0,0	53,73	16,45	3,86	0,26	0,0

**Lecturers:** Mgr. Mária Kolesárová, PhD., MUDr. Jana Trizuljaková, PhD., MUDr. Lucia Urban

**Last change:** 19.08.2024

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.PK/L-S-VL-090/21	<b>Course title:</b> Medical Psychology and Communication
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 10s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 4.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% completion of practicals <b>Exam:</b> - written exam (minimum 60%) Test results: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % or less. The overall evaluation will be assigned based on the score on the written exam.	
<b>Learning outcomes:</b> Knowledge: Basics of general and developmental psychology. Psychology of personality and personality mechanisms. Psychology of patient, doctor, and healthcare environment. Psychological aspects of clinical examination and treatment, social communication, communication abilities, Assertivness. Skills: Being able to: Identify individual mental functions and the importance of their changes in disease states. Identify personality mechanisms important for communication with the patient. Apply general principles and techniques of communication in interaction with the patient and his close persons. Identify factors that determine the course of communication in clinical practice in relation to the individual characteristics of the patient. Use communication skills in the clinical examination of the patient and in solving difficult situations.	
<b>Class syllabus:</b> Medical psychology. Structure of psychic functions and personality – traditional and modern approaches. Developmental stages and their specifics. Psychological hygiene. Factors influencing patient's coping with illness. Model demonstrations of patient's attitudes towards disease and selected clinical and psychological problems. Psychological aspects of interviewing and treatment. Psychological aspect of healthcare environment. Communication in medicine, specific characteristics of communication in clinical practice. Practical training of techniques and principles of communication with patients – children and adults. Life events and coping.	



<b>Recommended literature:</b> Žucha, I. – Čaplová, T. a kol.: Lekárska psychológia. Bratislava: Univerzita Komenského, 2. vyd. 2012. 208 s. ISBN 978-80-223-3296-5. Morovicsová, E. a kol.: Komunikácia v medicíne. Bratislava: Univerzita Komenského, 2. vyd. 2014. 212 s. ISBN 978-80-223-3620-8.					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 1360					
A	B	C	D	E	FX
8,31	57,28	27,94	5,37	0,81	0,29
<b>Lecturers:</b> doc. MUDr. Ľubomíra Izáková, PhD., prof. MUDr. Ján Pečeňák, CSc., doc. MUDr. Jana Trebatická, PhD., doc. PhDr. Eva Morovicsová, PhD., MPH, MUDr. Zuzana Matzová, PhD., doc. PhDr. Michal Hajdúk, PhD., doc. MUDr. Mária Kráľová, CSc., MUDr. Viktor Segeda, PhD.					
<b>Last change:</b> 02.12.2022					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLFB/L-S-VL-140/19	<b>Course title:</b> Medical Statistics
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚSLLE/L-S-VL-065/19 - Social Medicine	
<b>Course requirements:</b> Conditions for registering for the exam: - Active participation in lectures – weight 0.1 - Mid-term written tests (at least 70,0 %) – weight 0.3 Exam: - Written test (at least 70,0 %) - weight 0.5 - Oral exam - presentation of selected topic - weight 0.1 Rating: A: 94,0 % – 100,0 %; B: 88,0 % – 93,9 %; C: 82,0 % – 87,9 %; D: 76,0 % – 81,9 %; E: 70,0 – 75,9 %; Fx: 69.9 % – 0.0 %. The overall rating will be determined from the weighted average of the ratings received, with no partial rating being Fx.	
<b>Learning outcomes:</b> Knowledge: Upon successful completion of the course, students should be able to select and use a suitable method for statistical processing of medical data obtained from small-scale measurements and large studies as well as their correct graphic presentation. Skills: Ability to use an appropriate statistical and/or graphical method to solve a particular problem.	
<b>Class syllabus:</b> Measurement and statistical data processing in medicine. Probability and random variables. Population, sample, statistical variable. Descriptive Statistics - sample characteristics. Theoretical probability distributions and their application to biomedical measurements. Outliers. Inductive Statistics - hypothesis testing for one or two samples, paired and unpaired comparisons - parametric and nonparametric tests, confidence intervals. Testing of related data - regression and correlation. Categorical data testing - contingency tables. Comparing multiple samples, monitoring the impact of factors - analysis of variance. Survival analysis - survival curve, time series. Principles of discriminatory and cluster analysis.	

Data interpretation - use of statistical tables.  
Graphic presentation of data. Graphical and statistical data processing using a computer. Criteria for choosing the appropriate test and the appropriate graph.

**Recommended literature:**

KOZLÍKOVÁ, K., TRNKA, M. Úvod do spracovania a prezentovania dát v medicíne. Košice : Equilibria, 2018, 226 s. ISBN 978-80-8143-234-7.

• KOZLÍKOVÁ, K., MARTINKA, J. Základy spracovania biomedicínskych meraní II.

Bratislava : Asklepios, 2009. 204 s. ISBN 978-80-7167-137-4.

• SMITH, D. J. Basic Statistical Techniques for Medical and Other Professionals: A Course in Statistics to Assist in Interpreting Numerical Data. New York : Routledge, 2022. 137 p. ISBN 978-1-032-11495-8.

• BOWERS, D. Medical Statistics from Scratch. An Introduction for Health Professionals. 4th ed. Hoboken - Chichester: Blackwell Wiley , 2020, 498 p. ISBN 978-111952394X – vybrané kapitoly.

• Prednášky na portáli MEFANET LF UK – sekcia Biofyzika (<http://portal.fmed.uniba.sk/>).

• Doplnkový e-kurz ([www.moja.uniba.sk](http://www.moja.uniba.sk)).

• Ďalšie dostupné inovované literárne a internetové zdroje.

**Languages necessary to complete the course:**

Slovak, English an advantage

**Notes:**

maximal capacity 12 students

**Past grade distribution**

Total number of evaluated students: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. RNDr. Mgr. Katarína Kozlíková, CSc., PhDr. Michal Trnka, PhD.

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.IK5/L-S-VL-139/19	<b>Course title:</b> Medical sexology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - minimal 80% attendance during the lectures - Written credit test (Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%.)	
<b>Learning outcomes:</b> Knowledge: theoretical information in field of medical sexology Skills: propedeutic of medical sexology – how to take the patient history, what and how to ask	
<b>Class syllabus:</b> History of medical sexology, sexual norms, functions of dysfunction. Male sexual dysfunction. Female sexual dysfunction. Sexuality in connection with internal diseases, endocrine sexology. Disorders of sexual development of identity. Sexual deviations. Psychological problems in sexology. Forensic sexology, forensic sex, case studies. Gynaecological sexology. Sex education, sex education, planned parenthood. Fertility and reproductive medicine.	
<b>Recommended literature:</b> Borovský, M, Payer J, a kol. Gynekologická endokrinológia, Herba, 2016, 248 s. ISBN 978-80-89631-57-5 Heretik A, Heretik A. jr., Klinická psychológia, Psychoprof, 2016, druhé prepracované a rozšírené vydanie, 912 s., ISBN: 978-80-89322-24-4 Bartl, I, Hollý M, Pečeňák J. Farmakoterapia v sexuológii s. 550-573. In: Pečeňák J., Kořínková V, a kol.: Psychofarmakológia, Wolters Kluwer, 2016. Turčan, Pavel, Pavel Pokorný a Tomáš Fait. Sexuologie pro urology a gynekology: pruvodce ošetřujícího lékaře: [diferenciální diagnóza, farmakoterapie, kazuistiky]. 2. rozš. vyd. Praha: Maxdorf, 2012, 437 s. Jessenius. ISBN 978-80-7345-291-9. Weiss, Petr, Jaroslav Zvěřina a Tomáš Fait. Sexuologie: situace a trendy. Vyd. 1. Praha: Grada, 2010, 724 s. Psyché (Grada Publishing). ISBN 978-802-4724-928 Šrámková, T, Sexuologie pro zdravotníky, Galén, 2015, 237s, ISBN 978-80-7492-162-9.	

<p>Zámečník, L,a kol, Praktická andrologie dospělých, Praha, 2010, 254 s. Mladá fronta, ISBN 978-80-204-2020-6</p> <p>Guideliness EAU (EAU: European Association of Urology)</p> <p>Odporúčania EAU pre diagnostiku a liečbu erektilnej dysfunkcie (ED). Odporúčania EAU pre diagnostiku a liečbu syndrómu z nedostatku testosterónu (TDS) . Odporúčania EAU pre diagnostiku a liečbu infertility. Odporúčania EAU pre diagnostiku a liečbu porúch ejakulácie a EP. Odporúčania EAU pre diagnostiku a liečbu syndrómov chronickej panvovej bolesti (CPPsy). Odporúčania EAU pre diagnostiku a liečbu pohlavne prenosných ochorení (STD).</p> <p>Časopisy: Sexuológia/Sexology; Archives of Sexual Behavior ; Journal of Sexual Medicine</p> <p>Internetové odkazy: <a href="http://www.sexology.sk">www.sexology.sk</a>; <a href="http://www.sexuologickaspolecnost.cz">www.sexuologickaspolecnost.cz</a> ; <a href="http://www.iasr.org">www.iasr.org</a>; <a href="http://www.essm.org">www.essm.org</a>; <a href="http://www.kinseyinstitute.org">www.kinseyinstitute.org</a>;</p>																	
<p><b>Languages necessary to complete the course:</b></p> <p>slovak</p>																	
<p><b>Notes:</b></p>																	
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 245</p> <table> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>FX</th></tr> <tr> <td>100,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td></tr> </table>						A	B	C	D	E	FX	100,0	0,0	0,0	0,0	0,0	0,0
A	B	C	D	E	FX												
100,0	0,0	0,0	0,0	0,0	0,0												
<p><b>Lecturers:</b> doc. MUDr. Peter Jackuliak, PhD., MPH, MUDr. Igor Bartl, PhD.</p>																	
<p><b>Last change:</b> 20.05.2025</p>																	
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>																	

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.MÚ/L-S-VL-045/25	<b>Course title:</b> Microbiology 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 4.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚLBG/L-S-VL-007/16 - Biology and Human Genetics 2	
<b>Course requirements:</b> - 100% attendance at the practicals - 100% attendance at the lectures if on-line - 2 written test (minimum 60% of correct answers) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> Knowledge on the morphology, structure and physiology of microorganisms, their genetic processes important in human medicine, virulence factors, the relationship between microorganisms and humans, human microbiota, the pathogenicity of microorganisms to humans, the mechanisms of establishment, development and complications of infectious diseases, interaction of microorganisms with the human immune system. Knowledge on the fight against microorganisms and prevention of infectious diseases (disinfection, sterilization, antimicrobial drugs). Information on the particular bacterial, viral, prion, fungal and parasitic agents of human infectious diseases. Overview of types of biological specimens for microbiological diagnostics and methods of their transport; overview of microbiologic diagnostic methods. Basic algorithms for detection and identification of medically important bacteria, fungi, viruses and parasites. <b>Skills:</b> Collection of biological specimens for microbiologic examination. Preparation and evaluation of microscopic preparations from biological specimens and from pure cultures of bacteria and fungi. Detection of microbial antigens in biological samples by rapid diagnostic tests. Inoculation of biological specimens on culture media, evaluation of bacterial growth on selective and diagnostic culture media, isolation of bacteria in pure culture. Performing and evaluation of simple biochemical and serological identification tests. Performing, evaluation and interpretation of antimicrobial susceptibility tests. Evaluation and interpretation of serological tests detecting specific antibodies	

against infectious agents. Performing, evaluation and interpretation of selected tests for detection and identification of bacteria, viruses, fungi and parasites.

### **Class syllabus:**

#### **Lectures:**

Basic characteristics of microorganisms. Interaction of microorganisms and humans. The human microbiota. Establishment and course of microbial diseases.

Morphology, anatomy, metabolism, growth and multiplication of bacteria. Taxonomy and systematics of bacteria. Genetics of bacteria, bacteriophages. Molecular basis of bacterial pathogenicity and virulence. The role of biofilm and persistence of microorganisms in human medicine. Basic information on bacterial interaction with the human immune system. Decontamination, disinfection and sterilization. Antimicrobial drugs. Side effects of antimicrobial drugs. Antibacterial drugs and antimicrobial resistance mechanisms. Medically important bacteria. Structure and classification of viruses, replication of viruses, genetics of viruses. Antivirals. Viral infection at the level of the cell and the organism. Pathogenesis of viral infections and basic information about the interaction of viruses with the human immune system. DNA viruses and RNA viruses important for human medicine. Prions. Brief overview of taxonomy and systematics of medically important micromycetes, their morphology and physiology, pathogenicity and virulence. Pathogenesis of fungal infections and interaction of micromycetes with the human immune system. Antifungals. Agents of superficial, subcutaneous and systemic mycoses. A brief overview of the taxonomy and systematics of medically important parasites. General characteristics of human parasitoses agents. Epidemiology and prevention of parasitoses. Interaction of parasites with the human immune system. Antiparasitics. Overview of medically important parasitic protozoa and worms.

#### **Practical exercises, seminars:**

Safety rules in the laboratory of clinical microbiology. Clinical microbiology laboratory equipment. Basic algorithm of direct and indirect microbiologic diagnostics. Collection and transport of specimens for microbiologic diagnostics. Microscopic examination of clinical specimens (wet-mount, fixed preparation, monochromatic staining, diagnostic staining). Types of clinical specimens regularly examined by microscopy; information provided by microscopic examination. Detection of microbial antigens in clinical specimens. Microbial genome detection in clinical specimens. Microbial culture methods. Evaluation of the culture results and information provided by the microbial culture techniques. Bacteria that are not cultivable on laboratory culture media. Identification of bacteria - microscopic and biochemical; serotyping, identification by mass spectrum analysis (MALDI-TOF MS), identification by genome analysis (gene probes, PCR, sequencing). Antimicrobial susceptibility testing by disk diffusion test and dilution tests, interpretation of results. Detection of resistance mechanisms by phenotypic and genotypic methods. Indirect microbiologic diagnostics - collection of specimens for antibody detection; detection of antibodies by immunochemical methods - agglutination, precipitation, immunochromatographic tests, ELISA and immunofluorescence tests; confirmation of results by Western blot. Antibody quantification. Interpretation of antibody tests results. Detection of cell-mediated immunity - IGRA tests.

Basic algorithms for identification of gram-positive bacteria, gram-negative bacteria, fastidious and non-cultivable bacteria. Microbiologic diagnostics of viral, fungal and parasitic agents of human diseases.

### **Recommended literature:**

Liptáková, A. et al.: Lekárska mikrobiológia. - 1. vyd. - Bratislava : Herba, 2019. - 952 s.

Liptáková, A. et al.: Mikrobiologická diagnostika pôvodcov infekčných ochorení pre študentov medicíny. 1. vyd. Bratislava: Univerzita Komenského v Bratislave, 2018. - 256 s.

Goering, R. et al.: Mims' Medical Microbiology and Immunology 6th ed, Elsevier, 2018, 568pp.  
Murray, P.R. et al.: Medical Microbiology, 9th Edition., Elsevier, 2020. 872 pp.

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. MUDr. Adriana Liptáková, PhD., MPH, doc. RNDr. Lívia Slobodníková, CSc., RNDr. Lucia Janošíková, MUDr. Ján Koreň, PhD., Mgr. Marek Straka, PhD., RNDr. Martina Dubinová, PhD., Mgr. Hana Dibalová, PhD., Iryna Voronkina, PhD.

**Last change:** 05.03.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.MÚ/L-S-VL-046/18	<b>Course title:</b> Microbiology 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 4	
<b>Recommended semester:</b> 5.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.MÚ/L-S-VL-045/17 - Microbiology 1 or LF.MÚ/L-S-VL-045/25 - Microbiology 1	
<b>Course requirements:</b> - 100% attendance at the practicals - 100% attendance at the lectures if on-line - 1 written test (minimum 60% of correct answers) and practical exam: two practical questions <b>Final exam:</b> - written test - theoretical exam: 3 questions (general microbiology, special microbiology, basics of clinical microbiology) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> Knowledge of the microbiota and the causative agents of infectious diseases of individual organs and organ systems, the method of transmission of infectious agents, the most important virulence factors that apply to individual types of infectious diseases and the predisposing factors that support the emergence of these diseases. Knowledge of the use of the results of microbiological examinations in the prevention and treatment of infectious diseases of individual organs and organ systems; knowledge of active and passive immunization and immunomodulators of microbial origin. Knowledge about the collection and transport of material in infectious diseases of individual organs and organ systems and the algorithms of microbiological diagnostics of these diseases. <b>Skills:</b> Evaluation of microbiological tests, which are used in the diagnosis of infectious diseases of individual organs and organ systems, and interpretation of the results of microbiological examination on the example of individual model patients using simulators and case reports.	
<b>Class syllabus:</b> Lectures:	

Introduction to clinical microbiology. Algorithm for microbiological diagnostics of infectious diseases. Microbiological data for targeted antibiotic treatment. Brief overview of anti-infective immunity. Active and passive immunization. Immunomodulators of microbial origin. Microbiota of respiratory tract; upper and lower respiratory tract infections. Gastrointestinal mucosa microbiota; gastrointestinal tract infections; liver and biliary tract infections. Microbiota of the uropoietic system mucosa; uropoietic system infections. Microbiota of the skin and skin glands; skin, wound and soft tissue infections. Infectious osteomyelitis and arthritis. Infections caused by anaerobic bacteria. Bacteremia, sepsis, cardiovascular infections, endocarditis. Neuroinfections. Conjunctive microbiota; infections of the eye and its supporting tissues. Microbiotic mucosa of the genital tract; sexually transmitted infections and other infections of the genital system. Fetal and neonatal infections - congenital, perinatal and neonatal. Specifics of infectious diseases during pregnancy and after childbirth. Screening for infectious diseases during pregnancy. Immunocompromised patient infections. Infections associated with the presence of a foreign body and biofilm formation. Epidemiology and infection prevention. Nosocomial infections. Infections caused by resistant bacteria. Principles of rational use of antimicrobial drugs. Bioterrorism and diagnostics of biological agents during biological weapons threats.

Practical exercises, seminars:

Critical aspects of collection of biological material and transport for microbiological examination. Basic algorithm of microbiological diagnostics of infectious diseases. Methods of rapid microbiological diagnostics and their importance for the treatment of the patient and for the prevention of the spread of dangerous diseases. Microbiological diagnostics of respiratory tract infections, gastrointestinal system, uropoietic system, infectious skin diseases, wound infections, soft tissues, bones and joints. Microbiological diagnosis of infections caused by anaerobic bacteria. Microbiological diagnosis of septic conditions and infectious endocarditis, neuroinfections and eye infections. Microbiological diagnosis of infections of the genital system, infections of the fetus and newborn. The role of microbiological examination during pregnancy in the prevention of congenital infections. Microbiological diagnosis of foreign body infections and the presence of biofilm. Microbiological diagnosis of infectious diseases of an immunocompromised patient.

#### **Recommended literature:**

Liptáková, A. et al.: Lekárska mikrobiológia. - 1. vyd. - Bratislava : Herba, 2019. - 952 s.  
 Liptáková, A. et al.: Mikrobiologická diagnostika pôvodcov infekčných ochorení pre študentov medicíny. 1. vyd. Bratislava: Univerzita Komenského v Bratislave, 2018. - 256 s.  
 Goering, R. et al.: Mims' Medical Microbiology and Immunology 6th ed, Elsevier, 2018, 568pp.  
 Murray, P.R. et al.: Medical Microbiology, 9th Edition., Elsevier, 2020. 872 pp.

#### **Languages necessary to complete the course:**

slovak

#### **Notes:**

#### **Past grade distribution**

Total number of evaluated students: 2171

A	B	C	D	E	FX
31,87	21,74	17,0	12,85	9,67	6,86

**Lecturers:** doc. MUDr. Adriana Liptáková, PhD., MPH, doc. RNDr. Lívia Slobodníková, CSc., MUDr. Ján Koreň, PhD., Mgr. Hana Dibalová, PhD., Iryna Voronkina, PhD., RNDr. Martina Dubinová, PhD., Mgr. Marek Straka, PhD.

**Last change:** 02.12.2022

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLFB/L-S-VL-142-4/22	<b>Course title:</b> Modern Biophysics: From Nanoparticles to Quantum Brain
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Form of the course:mixed form	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Continuously: - Active participation in lectures Final exam: - Semestral project submission Test rating: A: 91 % – 100 %, B: 81 % – 90 %, C: 73 % – 80 %, D: 66 % – 72 %, E: 60 % – 65 %, Fx: 59 % and less.	
<b>Learning outcomes:</b> Knowledge: to gain information on „the state of art“ knowledge in the areas of modern medicine, where experimental and diagnostic methods based on physical phenomenons are applied. Students gain the brief theory on physical principles amd phenomenom accross modern works and papers, which are beyond biological processes. Artificial intelligence in medicine, basic principles, function, its limits, pros and cons. Skills: basic level of software Neuron, electron microscopy	
<b>Class syllabus:</b> Introduction to modern physics, Bio-magnetism, Nanoparticles, Physical processes in human brain, DNA and chemical bonds, thermodynamics, entropy and the arrow of time, bioenergetics, experimental methods in biophysics, artificial intelligence, Machine Learning, structure of consciousness, quantum brain	
<b>Recommended literature:</b> 1. Davidovits, P. Physics in Biology and Medicine. San Diego, Elsevier, 2008, ISBN 978-0-12-369411-9 2. Hrazdira I, Morstein V, Škorpíková J. Lekářská biofyzika a přístrojová technika. Brno, Neptun, 2006, ISBN 80-86850-01-3 2. internetové zdroje	

<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 17					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. RNDr. Martin Kopáni, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLFB/L-S-VL-142-5/22	<b>Course title:</b> Modern Biophysics: From Nanoparticles to Quantum Brain
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Form of the course:mixed form	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Continuously: - Active participation in lectures Final exam: - Semestral project submission Test rating: A: 91 % – 100 %, B: 81 % – 90 %, C: 73 % – 80 %, D: 66 % – 72 %, E: 60 % – 65 %, Fx: 59 % and less.	
<b>Learning outcomes:</b> Knowledge: to gain information on „the state of art“ knowledge in the areas of modern medicine, where experimental and diagnostic methods based on physical phenomenons are applied. Students gain the brief theory on physical principles amd phenomenom accross modern works and papers, which are beyond biological processes. Artificial intelligence in medicine, basic principles, function, its limits, pros and cons. Skills: basic level of software Neuron, electron microscopy	
<b>Class syllabus:</b> Introduction to modern physics, Bio-magnetism, Nanoparticles, Physical processes in human brain, DNA and chemical bonds, thermodynamics, entropy and the arrow of time, bioenergetics, experimental methods in biophysics, artificial intelligence, Machine Learning, structure of consciousness, quantum brain	
<b>Recommended literature:</b> 1. Davidovits, P. Physics in Biology and Medicine. San Diego, Elsevier, 2008, ISBN 978-0-12-369411-9 2. Hrazdira I, Morstein V, Škorpíková J. Lekářská biofyzika a přístrojová technika. Brno, Neptun, 2006, ISBN 80-86850-01-3 2. internetové zdroje	

<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 19					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. RNDr. Martin Kopáni, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.NK1/L-S-VL-047/25	<b>Course title:</b> Neurology 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2 and LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> 100 % attendance on practicals patient examination and elaboration of complete patient record, written test – minimum 70 % Test evaluation: A: 95 - 100 %, B: 89 – 94 %, C: 83 – 88 %, D: 77 – 82 %, E: 70 – 76 %, Fx: 0 - 69 % The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: morphology of nervous system, molecular mechanisms underlying nervous system activity, functional neuroanatomy, major neurologic syndromes, manifestation of nervous system disorders, principles and techniques of clinical and instrumental neurological examination Skills: mastering of technique and interpretation of clinical and instrumental neurological examination	
<b>Class syllabus:</b> architecture, organization, and functioning of nervous system, functional neuroanatomy, signs and symptoms of nervous system disorders, major neurologic syndromes, clinical neurological examination – technique and interpretation, EEG, EP, EMG, USG, CT, MRI, lumbar puncture – principles, indications and interpretation	
<b>Recommended literature:</b> Kaňovský, P: Obecná neurologie a vyšetřovací metody v neurologii, Univerzita Palackého v Olomouci, 2019 Biller J et al: The Neurological Examination, 7th ed., The McGraw-Hill Companies Inc, 2016, Benarroch E et al: Mayo Clinic Medical Neurosciences, 6th ed., Mayo Clinic Scientific Press 2018	
<b>Languages necessary to complete the course:</b> slovak	
<b>Notes:</b>	



<b>Past grade distribution</b>						
Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Peter Turčáni, PhD., prof. MUDr. Branislav Kollár, PhD., MPH, prof. MUDr. Peter Valkovič, PhD., doc. MUDr. Karin Gmitterová, PhD., doc. MUDr. Michal Minár, PhD., doc. MUDr. Jaroslav Pancák, PhD., prof. MUDr. Marek Sýkora, PhD., doc. MUDr. Pavel Šiarnik, PhD., prof. MUDr. Stanislav Šutovský, PhD., doc. MUDr. Gabriela Timárová, PhD., MPH, MUDr. Zoltán Goldenberg, PhD., doc. MUDr. Katarína Klobučníková, PhD., MUDr. Marián Kondáš, PhD., MUDr. Iveta Lisá, CSc., MUDr. Jozef Szabó, PhD., doc. MUDr. Zuzana Košutzká, PhD., doc. MUDr. Igor Straka, PhD.						
<b>Last change:</b> 30.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.NK1/L-S-VL-048/19	<b>Course title:</b> Neurology 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 26s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 4	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.NK1/L-S-VL-047/19 - Neurology 1 or LF.NK1/L-S-VL-047/25 - Neurology 1	
<b>Course requirements:</b> - 100% attendance at the practicals - 2 written test (minimum 70% of correct answers) <b>Final exam:</b> - practical exam: patient examination and writing medical report - theoretical exam: 3 question (general examination, special systems, laboratory test) <b>Test evaluation:</b> A: 95 - 100 %, B: 89 – 94 %, C: 83 – 88 %, D: 77 – 82 %, E: 70 – 76 %, Fx: 69 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> etiopathogenesis, clinical manifestation, diagnosis and treatment of various neurological diseases, headaches and cranial neuralgia syndromes, neurodegenerative diseases, vertebrogenic diseases, neurooncology, craniocerebral injuries, demyelinating diseases, neurological complications of systemic and metabolic diseases <b>Skills:</b> Identification of symptoms and signs of the most common neurological diseases, determination of syndromology, proposal of diagnostic management, interpretation of ancillary examinations in the context of clinical settings, clinical diagnosis, preparation of a therapeutic plan	
<b>Class syllabus:</b> cerebrovascular diseases, paroxysmal disorders, headache and cranial neuralgia syndromes, neurodegenerative diseases, vertebrogenic diseases, neurooncology, craniocerebral injuries, neuroinflammatory diseases , demyelinating diseases, diseases of peripheral nervous system, neuromuscular disorders, neurological complications of systemic and metabolic diseases	
<b>Recommended literature:</b> Ambler, Bednařík, Růžička: Klinická neurologie - část obecná Bednařík, Ambler, Růžička: Klinická neurologie - část speciální I., II. Nevšimalová S. a kol.: Neurologie	

Ružička E. et al. Neurologie (2. rozšířené vydání), vydavatelství Triton, 2021  
 Jedlička a kol.: Speciální neurologie  
 Bloom, David: Clinical Adult Neurologie  
 Manji: Oxford Handbook of Neurology  
 Mumenthaler and Mattle: Neurologie/Neurology  
 Sledovanie odborných periodík napr.: Česká a slovenská neurologie a neurochirurgie, Neurológia pre prax, Bratislavské lekárske listy  
 Prednášková aktivita a podklady na štúdium cez MS TEAMS a internetové zdroje PUBMED, SCOPUS, WEB of SCIENCE

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 1763

A	B	C	D	E	FX
1,02	12,93	34,54	33,35	17,7	0,45

**Lecturers:** prof. MUDr. Peter Turčáni, PhD., prof. MUDr. Stanislav Šutovský, PhD., prof. MUDr. Branislav Kollár, PhD., MPH, doc. MUDr. Jaroslav Pancák, PhD., prof. MUDr. Marek Sýkora, PhD., MUDr. Zoltán Goldenberg, PhD., MUDr. Marián Kondáš, PhD., doc. MUDr. Michal Minár, PhD., doc. MUDr. Gabriela Timárová, PhD., MPH, prof. MUDr. Peter Valkovič, PhD., MUDr. Iveta Lisá, CSc., doc. MUDr. Karin Gmitterová, PhD., doc. MUDr. Zuzana Košutzká, PhD., doc. MUDr. Igor Straka, PhD.

**Last change:** 02.12.2022

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚH/L-S-VL-164-4/19	<b>Course title:</b> Nutrition in Disease Prevention
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2 and LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> - written test (minimum 60% of correct answers) - oral exam - 2 questions (basic nutrients and their sources, the role of nutrition in the chronic disease prevention, diets) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: Basic knowledge of major nutrients and food groups, healthy nutrition and drinking habits, the role of healthy nutrition and eating habits in chronic disease prevention, nutritional risk factors in relation to chronic diseases, assessment of dietary health consequences, alternative nutrition, special nutritional needs of different population groups, dietary requirements for the catering and basic food law. Skills: - assessment of nutritional status of individuals and population groups - evaluation of caloric and biological values of nutrition - nutrition counselling	
<b>Class syllabus:</b> Nutrition as a factor in the health protection and health promotion, healthy diet principles. Major nutrient sources, RDA, GDAs. Nutrition of selected population groups (the specific nutritional requirements for children and youth, pregnant and breastfeeding women, the elderly, protective and clinical nutrition). The principles for the differentiated eating plan in the chronic non-communicable disease prevention (food in the prevention and treatment of cardiovascular and oncological diseases, diabetes, osteoporosis, obesity). Principles for the hygienic quality of the food chain, preventing foodborne diseases, intoxications and changes in the health status as a result	

of microbial contamination, toxic xenobiotics and radiation, HACCP, GMP. The principles for the providing of the catering, different catering forms, dietary system, hospital catering, clinical nutrition. Alternative and unconventional nutrition, weight reduction and health improving diets. Drinking regime. Educational and advisory services in nutrition. Codex Alimentarius - meaning, history, international aspects, Slovak Codex Alimentarius - theoretical background and experience, current EU law.					
<b>Recommended literature:</b> Jurkovičová, J. a kol. Hygiena. Bratislava, UK, 2020. 481 s. ISBN 978-80-223-4905-5. Jurkovičová, J. a kol. Praktické cvičenia z hygieny. Bratislava: UK, 2010. 331 s. Skriptá. ISBN 978-80-223-2816-6. Babjaková, J., Sekretár, S. Nutrition and Food Safety in Public Health. Bratislava: Comenius University, 2015. 136 p. ISBN 978-80-223-3932-2 Hybenová, E., Kajaba, I. Výživa človeka. Bratislava: STU, 2021. 461 s. ISBN 978-80-227-5141-4					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 198					
A	B	C	D	E	FX
62,63	30,3	5,05	1,01	1,01	0,0
<b>Lecturers:</b> prof. MUDr. Jana Jurkovičová, CSc., MUDr. Jana Babjaková, PhD., MPH, MUDr. Zuzana Štefániková, CSc.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚH/L-S-VL-164-5/19	<b>Course title:</b> Nutrition in Disease Prevention
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - written test (minimum 60% of correct answers) - oral exam - 2 questions (basic nutrients and their sources, the role of nutrition in the chronic disease prevention, diets) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: Basic knowledge of major nutrients and food groups, healthy nutrition and drinking habits, the role of healthy nutrition and eating habits in chronic disease prevention, nutritional risk factors in relation to chronic diseases, assessment of dietary health consequences, alternative nutrition, special nutritional needs of different population groups, dietary requirements for the catering and basic food law. Skills: - assessment of nutritional status of individuals and population groups - evaluation of caloric and biological values of nutrition - nutrition counselling	
<b>Class syllabus:</b> Nutrition as a factor in the health protection and health promotion, healthy diet principles. Major nutrient sources, RDA, GDAs. Nutrition of selected population groups (the specific nutritional requirements for children and youth, pregnant and breastfeeding women, the elderly, protective and clinical nutrition). The principles for the differentiated eating plan in the chronic non-communicable disease prevention (food in the prevention and treatment of cardiovascular and oncological diseases, diabetes, osteoporosis, obesity). Principles for the hygienic quality of the food chain, preventing foodborne diseases, intoxications and changes in the health status as a result of microbial contamination, toxic xenobiotics and radiation, HACCP, GMP. The principles for	

the providing of the catering, different catering forms, dietary system, hospital catering, clinical nutrition. Alternative and unconventional nutrition, weight reduction and health improving diets. Drinking regime. Educational and advisory services in nutrition. Codex Alimentarius - meaning, history, international aspects, Slovak Codex Alimentarius - theoretical background and experience, current EU law.					
<b>Recommended literature:</b> Jurkovičová, J. a kol. Hygiena. Bratislava, UK, 2020. 481 s. ISBN 978-80-223-4905-5. Jurkovičová, J. a kol. Praktické cvičenia z hygieny. Bratislava: UK, 2010. 331 s. Skriptá. ISBN 978-80-223-2816-6. Babjaková, J., Sekretár, S. Nutrition and Food Safety in Public Health. Bratislava: Comenius University, 2015. 136 p. ISBN 978-80-223-3932-2 Hybenová, E., Kajaba, I. Výživa človeka. Bratislava: STU, 2021. 461 s. ISBN 978-80-227-5141-4					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 141					
A	B	C	D	E	FX
67,38	29,79	2,84	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Jana Jurkovičová, CSc., MUDr. Jana Babjaková, PhD., MPH					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026					
<b>University:</b> Comenius University Bratislava					
<b>Faculty:</b> Faculty of Medicine					
<b>Course ID:</b> LF.GPK2/L-S-VL-148/19		<b>Course title:</b> Obstetrics propaedeutics			
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning					
<b>Type, volume, methods and workload of the student - additional information</b> COS					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 7.					
<b>Educational level:</b> I.II.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 214					
A	B	C	D	E	FX
64,49	21,03	6,07	5,14	3,27	0,0
<b>Lecturers:</b> prof. MUDr. Jozef Záhumenský, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KOH/L-S-VL-149/21	<b>Course title:</b> Oncohematology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 80 % attendance at the seminars - 1 written test at final exam (minimum 60% of correct answers) Final exam: - test exam + theoretical exam: 1 question (according to syllabus) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: basic diagnostics in haematological malignancies, treatment principles in patients with leukaemia, lymphoma, multiple myeloma; basics of supportive therapy; understanding of specific features of oncohaematology Skills: to propose basic diagnostic and therapeutic algorithm for the patients with haematological cancer; to identify clinical specific features of patient	
<b>Class syllabus:</b> - Biology of hematological malignancies - Basics of diagnostic methods in oncohematology - Treatment principles (general and specific) - Acute leukemias (myeloid and lymphatic) - Chronic leukemias (myeloid and lymphatic) - Malignant lymphomas and multiple myeloma - Supportive care	
<b>Recommended literature:</b> Sakalová A et al. Klinická hematológia, Osveta 2011 Rohoň P et al. Hematologie a hematoonkologie v kazuistikách, Maxdorf 2020	

Doubek M, Mayer J et al. Léčebné postupy v Hematologii 2020, Česká hematologická společnost ČLS JEP 2020					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 22					
A	B	C	D	E	FX
95,45	0,0	4,55	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Ľuboš Drgoňa, CSc.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.OnK1/L-S-VL-050/19	<b>Course title:</b> Oncological Propedeutics
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 11s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2 and LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> 100% attendance at the practicals Final exams: 1 written test (minimum 60 % of correct answers) Test evaluation: A: 91 - 100 %, B: 81 - 90 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %, Fx: 59 - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> General oncology: theoretical knowledge of cancer biology, tumour immunology, etiology, epidemiology, screening and prevention of tumours. Knowledge of medical documentation in oncology. Clinical research in oncology. Basic symptomatology and principles of cancer diagnostics and evaluation of the treatment response. Basic knowledge of therapeutic methods in oncology – surgery, radiotherapy, systemic therapy. Supportive and palliative care. Psychosocial support. Special oncology: epidemiology, etiology, pathology, symptomatology, diagnostics, therapy and prognosis of selected groups of cancer: head and neck cancers, cancers of the respiratory organs and mediastinum, gastrointestinal tumours, genitourinary tumours, gynaecological malignancies, breast cancer, bone and soft tissue tumours, skin cancer, endocrine neoplasms, CNS malignancies, carcinoma of unknown primary, haematological oncology, rare cancers, AIDS-associated malignancies, Tumours of childhood and adolescence. Cancer and pregnancy. Geriatric oncology. <b>Skills:</b> History taking, examination of oncological patient, acquaintance with medical documentation of oncological patient	
<b>Class syllabus:</b> Basics of general and special oncology	
<b>Recommended literature:</b> Kaušitz, J., Ondruš, D. a kol.: Všeobecná onkológia. Bratislava: Solen, 2017. 608 s. ISBN 978-80-89858-05-7.	

Kaušitz, J., Ondruš, D. a kol.: Špeciálna onkológia. Bratislava: Solen, 2020. 712 s. ISBN 978-80-89858-18-7. Ondruš, D., Bujdák, P., Ondrušová, M., Trebatický, B., Žiaran, S.: Urologická onkológia, Bratislava: UK v Bratislave 2020. 136 s. ISBN 978-80-223-4933-8.					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 1763					
A	B	C	D	E	FX
14,69	31,88	43,51	8,56	1,36	0,0
<b>Lecturers:</b> prof. MUDr. Dalibor Ondruš, DrSc., prof. MUDr. Stanislav Špánik, PhD., doc. MUDr. Lýdia Heľpianská, CSc., MUDr. Ivana Krajčovičová, PhD.					
<b>Last change:</b> 02.12.2022					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KO/L-S-VL-049/20	<b>Course title:</b> Ophthalmology
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9., 10..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the practicals - 2 written test (minimum 60% of correct answers) <b>Final exam:</b> - theoretical exam: 3 questions (general examination, special systems, laboratory test) <b>Test evaluation:</b> A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Acquisition of basic, theoretical and practical knowledge and skills in the field of ophthalmology of children and adults. <b>Knowledge:</b> Basic problems of clinical morphology and physiology of vision. Diagnostic procedures in ophthalmology, treatment procedures. <b>Skills:</b> Day and side light examination. Eye biomicroscopy. Ophthalmoscopy direct and indirect. Examination of visual acuity, field of vision and color vision. Additional examinations in ophthalmology: ultrasound diagnostics, fluorescein angiography of retinal vessels, optical coherence tomography, basics of radiodiagnostics in ophthalmology. Problems of pedophthalmology, ophthalmogenetics, ophthalmooncology, ophthalmogerontology, ophthalmogeriatrics. Relationship between ophthalmology and other medical disciplines. General diseases and their manifestations in the eye. Screening in ophthalmology. Diseases of the auxiliary organs of the eye. Diseases of the anterior segment of the eye. Cataracts and modern cataract surgery. Diseases of the refractive system of the eye. Basics of refractive surgery. Vascular and degenerative diseases of the retina and vitreous. Basics of vitreous-retinal surgery. Glaucoma diseases. Eye traumatology. Basics of neuroophthalmology. Therapy of the eye diseases and orbital diseases. Problems of social inclusion in patients with visual impairment in the environment - assessment activity. First aid and emergencies in ophthalmology.	

<b>Class syllabus:</b> Diagnostic and therapeutic procedures in the field of ophthalmology					
<b>Recommended literature:</b> 1. Krásnik, V., Furdová, A., Oláh, Z.: Príručka z oftalmológie 1 Univerzita Komenského v Bratislave, 2014, 170 s. 2. Oláh, Z., Furdová, A., Krásnik, V., Štefaničková, J.: Príručka z oftalmológie 2 Univerzita Komenského v Bratislave, 2017, 120 s. 3. Pavel Kuchynka a kol., Oční lékařství, Grada, 2016, <a href="https://www.martinus.sk/?uItem=239277">https://www.martinus.sk/?uItem=239277</a> 4. Anton Gerinec, Encyklopédia oftalmológie, A-medi management, 2021 5. Tomčíková, D., Krásnik, V., Popov, I., Valášková, J.: Vybrané kapitoly z oftalmológie, ISBN 978-80-223-4979-6, 95 str., UK 2022, e-kniha, <a href="https://www.fmed.uniba.sk/fileadmin/lf/sluzby/akademicka_kniznica/PDF/Elektronicke_knihy_LF_UK/Vybrane_kapitoly_z_ofthalmologie.pdf">https://www.fmed.uniba.sk/fileadmin/lf/sluzby/akademicka_kniznica/PDF/Elektronicke_knihy_LF_UK/Vybrane_kapitoly_z_ofthalmologie.pdf</a>					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 1469					
A	B	C	D	E	FX
39,62	31,18	19,54	6,47	2,93	0,27
<b>Lecturers:</b> doc. MUDr. Vladimír Krásnik, PhD., prof. MUDr. PhDr. Alena Furdová, PhD., MPH, prof. MUDr. Anton Gerinec, CSc., doc. MUDr. Dana Tomčíková, PhD., doc. MUDr. Jana Štefaničková, PhD.					
<b>Last change:</b> 27.05.2024					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ORLK1/L-S-VL-053/20	<b>Course title:</b> Otorhinolaryngology
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 14s / 35s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9., 10..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> All practicals need to be attended Ability to run patient's notes Test results need to reach 60% or more correct answers in order to pass (A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less) Practical exam Final evaluation takes into consideration all partial evaluations	
<b>Learning outcomes:</b> Knowledge: Profound theoretical knowledge in anatomy and physiology of ENT organs and neighboring areas. Knowledge on etiology, pathophysiology, diagnostics and treatment of ENT pathology. Basics of pharmacology in ENT, especially in infectious diseases. Theoretical knowledge on therapeutical approaches in ENT focused on oral cavity, nose, paranasal sinuses and the neck, principles of endoscopic diagnostic and surgical techniques in ENT. Principles of physiology and pathophysiology of hearing, basic knowledge of radiology in ENT. Basics of diagnostics and treatment in ENT oncology. Practical skills: History taking, physical examination of ENT organs, otoscopy, examination of the nose and nasal cavity including endoscopy, laryngoscopy including flexible laryngoscopy, epipharyngoscopy, examination of oral cavity and oropharynx, palpation of the neck. Reading and understanding of pure tone hearing test and tympanogram, principle of the neonatal hearing screening, evaluation of the CT and MRI of paranasal sinuses and the neck. Student must be able to make the provisional diagnosis including differential diagnoses, indicate appropriate examinations and therapeutically manage the patient.	
<b>Class syllabus:</b> Basics of anatomy and physiology of ENT organs. Standard examination methods including audiological diagnostics, neonatal screening of hearing. Symptoms of ENT diseases, diseases of ear, nose, sinuses, larynx, pharynx, oesophagus, thyroid and parathyroid glands, salivary glands and the neck. Tracheostomy, cricothyroidotomy, intubation. Tracheostomy care. Aspects of care after laryngectomy, tonsillectomy, ear and nose surgeries. ENT emergencies- choking, nose bleeds,	

bleeding from the mouth, management of inhaled and ingested foreign bodies. Management of the patient with head and neck cancer. Head and neck trauma.					
<b>Recommended literature:</b> Profant a kol.: Otorinolaryngológia (ARM333, 2000, 232s.), Kabátová a kol. Audiológia, (Grada, 2012, 360s), Jakubíková a kol.: Vrodené anomálie hlavy a krku (Grada, 2012, 244s)					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 1469					
A	B	C	D	E	FX
50,78	33,36	8,58	5,45	1,84	0,0
<b>Lecturers:</b> prof. MUDr. Miroslav Tedla, PhD., MPH, prof. MUDr. Milan Profant, CSc., doc. MUDr. Zuzana Kabátová, CSc., MUDr. Irina Goljerová, CSc.					
<b>Last change:</b> 02.12.2022					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					



## STATE EXAM DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.D_K/L-VL-ŠS-4/15	<b>Course title:</b> Paediatrics
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 11., 12..	
<b>Educational level:</b> I.II.	
<b>State exam syllabus:</b>	
<b>Last change:</b>	
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH	

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.D_K/L-S-VL-058/25	<b>Course title:</b> Paediatrics 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 29s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK5/L-S-VL-031/19 - Internal Medicine 3 or LF.IK5/L-S-VLa-031/25 - Internal Medicine 3 and LF.ChK1/L-S-VL-022/19 - Surgery 2 or LF.ChK1/L-S-VL-022/25 - Surgery 2	
<b>Course requirements:</b> 1) 100% presence at practicals and seminars (20% can be excused) 2) successful completion of 1 written or online-test at end of term (successful completion with 60% of total points) Test assessment: unsuccessful Fx: 59% and less points, successful 60% and more points, assessment of successful students based on percentiles as follows: A: equal and more points than 90% of successful students B: equal and more points than 70% but < 90% of successful students C: equal and more points than 30% but < 70% of successful students D: equal and more points than worst 10% but < 30% of successful students E: points < than worst 10% of successful student Testinting in 3 rounds: 1st round compulsory for all students (the grading scale is derived from the 1st round of testing), assessment in the 2nd and 3rd round according to percentiles from the 1st round of testing	
<b>Learning outcomes:</b> Knowledge: The division of periods of childhood. Physiology of the newborn, postnatal adaptation, complications of prematurity and low birth weight. Anatomical and physiological peculiarities of infancy (peculiarities of organ systems, growth, puberty, psychomotor development, nutrition in infancy and later life). Preventive measures in paediatrics (screening, vaccination). Symptomatology in diseases of selected systems (respiratory, cardiovascular, uropoietic, musculoskeletal, nervous) Skills: Paediatric history (with emphasis on family history, perinatal and postnatal periods, immunisations, psychomotor development, screening, morbidity)	

Physical examination of the child (infant and older child) including neurological examination and musculoskeletal examination (pGALS). Evaluation of auscultatory findings on the heart and lungs. Measurement and assessment of physiological parameters (weight, height, head and chest circumference, body temperature, BP, pulse and respiratory rate), pre- and post-feeding weight assessment. Assessment of psychomotor development.

Practical procedures in paediatrics (examination of the oral cavity, hand disinfection, putting on sterile gloves, blood collection, i.v. cannulation, administration of infusion, determination of blood group, preparation of blood transfusion).

### **Class syllabus:**

Lectures. The newborn and its adaptation to the external environment. The first examination of and care for the neonate after birth. Perinatal trauma. The premature newborn and low birth weight newborn. Psychomotor development of the child. Growth and weight, puberty and its disorders. Infant nutrition (natural and artificial) - importance of breastfeeding. Vitamin D and the prevention of rickets. Principles of rational nutrition of toddlers and older children.

Physical examination of the child, including neurological examination, clinical examination of the child with suspected endocrine disease. Examination of the musculoskeletal system in children (pGALS). Basic examination methods in paediatrics (paediatric cardiology, paediatric nephrology, paediatric endocrinology). Invasive procedures in paediatrics.

Fluid balance. Dehydration. Principles of fluid therapy.

Acute upper and lower respiratory tract diseases, pneumonia. The cardiovascular system in children (anatomy, physiology of childhood, symptoms, cardiac malformations). The kidney and urinary tract (anatomy and physiological features of childhood, congenital anomalies, clinical symptoms of kidney and urinary tract diseases). Endocrine system (physiology of childhood, screening for endocrine diseases, symptoms of endocrine gland diseases in childhood).

TBL: Abdominal pain in childhood. Anaemia in children.

Lecture methods: 80% lecture, 20% team-based learning (TBL).

Seminars: Physiology and pathology of the newborn. Congenital heart defects, specifics of ECG in children.

Seminar methods: interactive seminars using problem-based learning (PBL) or case-based learning (CBL).

Practical exercises. Physical examination of the newborn, infant and older child (including measurement of weight, height, head and chest circumference, body temperature, BP, pulse and respiratory rate). Preventive measures in paediatrics (screening, vaccination). Diseases amenable to screening and vaccination-preventable diseases. Practical skills (hand disinfection, putting on sterile gloves, blood collection, i.v. cannulation, blood typing, blood transfusion preparation, infusion administration, BP measurement). Interpretation of basic laboratory parameters (blood, urine, basic biochemical tests). Differential diagnosis of respiratory diseases in childhood. Diagnosis and management of urinary tract infections. Nutrition in infants and older children. Failure to thrive.

Methods of practical exercises: role-play, practice of practical skills on medical simulators, clinical-reasoning, 20% simulation teaching (teaching on a medical simulator), examination of a paediatric patient, self-study for seminars and practical teaching using prepared recordings/study materials or recommended internet resources

### **Recommended literature:**

Kovács L. a kol.: *Pediatrická propedeutika – pracovná učebnica pre študentov medicíny*, BUX, Bratislava, 2014, 150 s.

Lissauer T, Carroll W.: *Illustrated Textbook of Paediatrics*, 6th Edition, Elsevier, 2021

Muntau AC: *Kurzlehrbuch Pädiatrie*, Urban & Fischer in Elsevier 2015(Nemecky)

A. Shah, C. L. Acerini, E. Holloway, P. Lillitos, R. C. Tasker: Oxford Handbook of Paediatrics, Oxford University Press, 2021

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Ľudmila Podracká, CSc., prof. MUDr. Ingrid Brucknerová, PhD., doc. MUDr. Peter Olejník, PhD., doc. MUDr. Peter Čížňár, CSc., MUDr. Ivana Hulínková, PhD., doc. MUDr. Tomáš Dallos, PhD.

**Last change:** 20.01.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.D_K/L-S-VL-059/20	<b>Course title:</b> Paediatrics 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 29s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.D_K/L-S-VL-058/20 - Paediatrics 1 or LF.D_K/L-S-VL-058/25 - Paediatrics 1	
<b>Course requirements:</b> 1) 100% presence at practicals and seminars (20% can be excused) 2) successful completion of practical exam (examination of patient) 3) successful completion of 1 written or online-test at end of term (successful completion with 60% of total points) Test assessment: unsuccessful Fx: 59% and less points, successful 60% and more points, assessment of successful students based on percentiles as follows: A: equal and more points than 90% of successful students B: equal and more points than 70% but < 90% of successful students C: equal and more points than 30% but < 70% of successful students D: equal and more points than worst 10% but < 30% of successful students E: points < than worst 10% of successful student Testinng in 3 rounds: 1st round compulsory for all students (the grading scale is derived from the 1st round of testing), assessment in the 2nd and 3rd round according to percentiles from the 1st round of testing	
<b>Learning outcomes:</b> Knowledge: acute nutritional disorders in infants and children (dehydration, disorder of internal environment). Acute life-threatening conditions in children. Obesity. Eating disorders. Arterial hypertension in children. Selected organ system diseases according to paediatric specialities (neurological, otorhinolaryngologic, gastrointestinal, endocrine). Skills. Compiling a family tree. Assessment of the child's growth bodyweight and their evaluation according to percentile charts and SDs. Assessment of puberty (Tanner scale). Interpretation of radiological and imaging examinations. Collection of material for microbiological examination. Dose calculations and administration of drugs. Calculation of the caloric content of meals. Practical procedures in paediatrics - indication and practical performance (bladder catheterisation, lumbar puncture, tracheostomic cannula exchange).	
<b>Class syllabus:</b> Lectures: Respiratory complications of the newborn (transient tachypnea, hyaline membrane disease, meconium aspiration, bronchopulmonary dysplasia). Jaundice in the newborn. Haemolytic	

disease of the newborn. Hemorrhagic disease of the newborn. The asphyctic newborn. Fever - pathophysiology, differential diagnosis, management. Life-threatening conditions in paediatrics. Meningitis, encephalitis. Convulsions and epilepsy. Acute and chronic diseases of the respiratory system (developmental defects of the respiratory tract, cough, foreign body, bronchial asthma, cystic fibrosis, bronchiectasis, interstitial lung diseases, primary ciliary dyskinesia) Hypofunction and hyperfunction of the endocrine glands (thyroid and parathyroid disorders). Disorders of pubertal development, congenital adrenal hyperplasia, disorders of sexual differentiation. Obesity. Eating disorders. Congenital developmental anomalies of the uropoietic tract. Urinary tract infections, VUR. Arterial hypertension. Cardiology - heart failure, inflammatory heart disease, rheumatic fever, arrhythmias. Gastroenterology - congenital developmental defects of GIT, malabsorption, non-specific inflammatory bowel diseases, functional disorders of GIT, diseases of liver and biliary tract. The acute abdomen in children. Genetic diseases: monogenic, chromosomal aberrations. TBL: systemic connective tissue diseases: juvenile idiopathic arthritis, jSLE, JDM, vasculitis. Inborn errors of metabolism of sugars, fats and proteins, lysosomal storage diseases. Hypoglycaemia.

Lecture methods: 80% lecture, 20% TBL.

Practical exercises: clinical examination of a paediatric patient (history, physical, examination) establishing a working diagnosis, differential diagnosis of paediatric diseases with patients or problem-oriented or case-oriented teaching. Communication with the paediatric patient and his/her parent. Cardiopulmonary resuscitation. Evaluation of growth, nutritional and pubertal disorders. Hypoglycaemia and acid-base balance disorders. Diabetes mellitus in children. Urinary syndromes. Methods of practical exercises: 20% simulation teaching (teaching on a medical simulator): simulations of the most common paediatric diagnoses - group training on the simulator, training of communication skills. Training of paediatric cardiopulmonary resuscitation on the simulator. Problem- and case-based learning, clinical reasoning.

#### **Recommended literature:**

Kovács L. a spoluautori: Pediatria. Arete, Bratislava, 2011, 402 s.

Lissauer T, Carroll W. Illustrated Textbook of Paediatrics, 6th Edition, Elsevier, 2021

Muntau AC, Pediatria, Grada 2014, 608 p.

Lebl J., Janda J, Pohunek P., Starý J. Klinická pediatrie. Galén Karolinum 2014, 698 s.

Kovács L, Podracká Ľ. a kol. Pediatria – 1000 otázok a odpovedi. Osveta, Martin, 2004. 180 s.

Kovács L. a spoluautori: Pediatrická propedeutika, BUX, Bratislava, 2014, 150 s.

Šagát, T., Šašinka, M. Kovács L. Bánovčín P., Kuchta M. a kol. Pediatria I a II. Herba, Bratislava, 2019. 2496 s.

Marcidante K, Kliegman RM, Schuh AM, Nelson Essentials of Pediatrics 9th Edition, Elsevier, 2022

AMBOSS

#### **Languages necessary to complete the course:**

Slovak

#### **Notes:**

#### **Past grade distribution**

Total number of evaluated students: 1440

A	B	C	D	E	FX
20,69	22,99	33,82	15,14	7,36	0,0

<b>Lecturers:</b> prof. MUDr. Ľudmila Podracká, CSc., prof. MUDr. Ingrid Brucknerová, PhD., doc. MUDr. Peter Čižnár, CSc., doc. MUDr. Tomáš Dallos, PhD., doc. MUDr. Ľudmila Košťálová, CSc., doc. MUDr. Peter Olejník, PhD.
<b>Last change:</b> 19.08.2024
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.D_K/L-S-VL-060/25	<b>Course title:</b> Paediatrics 3
<b>Educational activities:</b> <b>Type of activities:</b> seminar / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 64s / 216s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 14	
<b>Recommended semester:</b> 11., 12..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.D_K/L-S-VL-059/20 - Paediatrics 2	
<b>Course requirements:</b> 1) 100% presence at practicals and seminars (20% can be excused) with documented presence 2) successful completion of practical exam (examination of patient, model medical record and presentation of a case study at a student seminar) 3) successful completion of 1 written or online-test at end of teaching block (successful completion with 80% of total points), unsuccessful students may repeat max. twice Test assessment: unsuccessful Fx: $\leq 59\%$ points, successful $>60\%$ points; assessment of successful students based on percentiles as follows: A: $\geq 90\%$ of successful students; B: $\geq 75\%$ but $< 90\%$ of successful students; C: $\geq 25\%$ but $< 75\%$ of successful students; D: $\geq 10\%$ but $< 25\%$ of successful students; E: points $<$ than 10% of successful students. State exam: theory testing, 3 topics, examination board with at least 3 members	
<b>Learning outcomes:</b> Knowledge: Theoretical knowledge in the field of neonatal physiology, physiology of child growth and development. Physiological changes in the maturation of individual organ systems. Diagnosis and treatment of pathological conditions of neonatal age. Fluid management of the infant and child. Diagnosis and treatment of the most common pathological conditions in childhood. The serious infectious complications. Basics of preventive and social pediatrics. Specific pharmacotherapy in childhood. Skills: Diagnosis and principles of treatment of basic diseases of childhood under the conditions of a hospital children's ward. The practice work of the pediatrician of primary contact. Technique of feeding newborns and infants. Application of nasogastric tube. Vascular access in children - intravenous infusions into the veins of the head and limbs. Oral administration of drugs to neonates and infants. Methods of blood and urine collection. Bone marrow biopsy, lumbar puncture, joint puncture. Immunization. Tuberculous testing. Chloride sweat test. Sonography of the brain and abdomen. Resuscitation of the newborn. Primary neonatal care. Phototherapy. Neonatal screening.	
<b>Class syllabus:</b> Work at the clinical ward in the role of a junior secondary care physician, under the supervision of a certified pediatrician. Assisting in diagnostic and therapeutic procedures with practical skills training in venous blood sampling, urinary catheter insertion, nasogastric tube insertion.	



<p>Treatment of central venous access, tracheostomy cannula, permanent urinary catheter. Evaluation of radiographs, ECG, interpretation of laboratory results. Visit in a specialist paediatric outpatient clinics. Attending rounds and seminars. Night on-call 2x. Preparation of a sample medical history of a selected patient - detailed history, physical findings, differential diagnosis and treatment. Oral presentation of case report with a discussion in the presence of teacher and students - simulation of a grand rounds.</p> <p>Rotation in pediatric department (4 weeks), pediatric dermatology department (1 week), pediatric neurology department (1 week), pediatric cardiology department (1 week)</p> <p>Seminars: 14 seminars</p> <p>Topics of the seminars: Growth disorders and pituitary diseases. Renal insufficiency and nephrotic syndrome. Diabetes, hypoglycemia and thyroid disorders. Inflammatory bowel disease and malabsorption syndrome. Hepatopathies and splenomegaly. Most common acute and chronic respiratory diseases. Arthritis and vasculitis. Genetically determined diseases. Inherited metabolic disorders. Dietary intake disorders. Intensive care in pediatrics. Sepsis in neonatal and pediatric age. Neonatal and postnatal adaptation. Pathologies in neonatology</p> <p>Methods: participation in grand rounds, work in the paediatric inpatient ward and in the tertiary center outpatient clinics</p> <p>Interactive seminars using case-based learning (CBL) 25%, Team-based learning (TBL) 25%, Self-study using pre-prepared recordings and study materials (mostly standard diagnostic and therapeutic guidelines ) 30%.</p>																				
<p><b>Recommended literature:</b></p> <p>Kovács L. a spoluautori: Pediatria. Arete, Bratislava, 2011, 402 s.</p> <p>Kovács L. a spoluautori: Pediatriká propedeutika, BUX, Bratislava, 2014, 150 s.</p> <p>Lissauer T, Carroll W. Illustrated Textbook of Paediatrics, 6th Edition, Elsevier, 2021</p> <p>Muntau AC, Pediatria, Grada 2014, 608 p.</p> <p>Lebl J. a kolektív. Klinická pediatrie. Galén Karolinum 2014, 698 s.</p> <p>Kovács L, Podracká Ľ. a kol. Pediatria – 1000 otázok a odpovedí. Osveta, Martin, 2004. 180 s.</p> <p>Šagát, T., Šašinka, M. Kovács L. Bánovčín P., Kuchta M. a kol. Pediatria I a II. Herba, Bratislava, 2019. 2496 s</p> <p>Shah A, Acerini CL, Holloway E, Lillitos P, Tasker RC. Oxford Handbook of Paediatrics, Oxford University Press, 2021</p> <p>Marcandante K, Kliegman RM, Schuh AM, Nelson Essentials of Pediatrics 9th Edition, Elsevier, 2022</p> <p>Amboss, www.amboss.com</p> <p>UpToDate, <a href="https://store.uptodate.com/">https://store.uptodate.com/</a></p>																				
<p><b>Languages necessary to complete the course:</b></p> <p>slovak</p>																				
<p><b>Notes:</b></p>																				
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 0</p> <table border="1"> <thead> <tr> <th>A</th><th>ABS0</th><th>B</th><th>C</th><th>D</th><th>E</th><th>FX</th></tr> </thead> <tbody> <tr> <td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td></tr> </tbody> </table>							A	ABS0	B	C	D	E	FX	0,0	0,0	0,0	0,0	0,0	0,0	0,0
A	ABS0	B	C	D	E	FX														
0,0	0,0	0,0	0,0	0,0	0,0	0,0														
<p><b>Lecturers:</b> prof. MUDr. Ľudmila Podracká, CSc., prof. MUDr. Ingrid Brucknerová, PhD., doc. MUDr. Peter Čižnár, CSc., doc. MUDr. Tomáš Dallos, PhD., doc. MUDr. Ľudmila Košťálová, CSc., doc. MUDr. Peter Olejník, PhD.</p>																				
<p><b>Last change:</b> 20.01.2025</p>																				

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.D_K/L-S-VL-103/20	<b>Course title:</b> Paediatrics – practice
<b>Educational activities:</b> <b>Type of activities:</b> practice <b>Number of hours:</b> <b>per week: per level/semester:</b> 80s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100 % attendance at the practice	
<b>Learning outcomes:</b> Knowledge: broadening, reinforcement and practical application of knowledge acquired in the coursed Paediatrics 1 and Paediatrics 2 in clinical practice Skills: - students work as residents at a paediatric ward and perform patient admissions and discharges of children of all ages including history taking from parent and child, physical examination, preparation of a diagnostic and therapeutic plan, medical records, daily clinical report writing, compilation of a patient history, hospital information system use, writing of examination requests) - communication with parents and children - physical examination of children of all ages - patient reporting - practical assessment of laboratory a radiographic findings - medication dosing, i.v. medication and infusion preparation, administration of infusions, subcutaneous and intramuscular injections - provision of selected diagnostic a therapeutic procedures (measurement and monitoring of vital functions, fluid balance, venous and capillary blood sampling, glycemia monitoring, laying of i.v. lines, urinary bladder catheterizations, sampling of biologic material for microbiologic examinations, laying a nasogastric tube, ultrasound), assistance at diagnostic a therapeutic procedures (lumbar puncture, joint puncture, transfusion administration, endoscopic examinations, enema), accompanying patients at ancillary examinations (ultrasound, X-ray, echocardiography, CT, MRI) and specialist's consults - invasive access care (i.v. line, nasogastric tube, percutaneous endoscopic gastrostomy and surgical stomas, permanent catheters, central venous catheters) - paediatric nursing care (feeding of infants and toddlers, daily hygiene of infants and toddlers, safe manipulation with infants and inpatient trauma prevention)	
<b>Class syllabus:</b>	

In the course of the compulsory practice, the student become acquainted and under the supervision of a qualified medical doctor carry out the standard tasks of a resident. The student becomes part of the medical staff of a paediatric ward and works with patients and their entire medical records at admission, follow-up and discharge. Under the supervision of nursing staff, the student provides nursing care to hospitalized children of all ages. The student joins daily and great rounds at which he reports about patients and become familiar with the diagnostic process and treatment of the entire spectrum of diagnoses and ancillary findings in childhood. The student acquires practical skills in diagnostic and therapeutic procedures as well as communication skills with parents and children. Two nightshifts are to be completed by the student in the course of this practice.
<b>Recommended literature:</b> Kovács L. a spoluautori: Pediatrická propedeutika, BUX, Bratislava, 2014, 150 s. Kovács L. a spoluautori: Pediatria. Arete, Bratislava, 2011, 402 s. Lissauer T, Carroll W. Illustrated Textbook of Paediatrics, 6th Edition, Elsevier, 2021
<b>Languages necessary to complete the course:</b> Slovak
<b>Notes:</b>
<b>Past grade distribution</b> Total number of evaluated students: 1228
ABS0
100,0
<b>Lecturers:</b> prof. MUDr. Ľudmila Podracká, CSc.
<b>Last change:</b> 19.08.2024
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.OnK2/L-S-VL-180-4/23	<b>Course title:</b> Palliative Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ChK1/L-S-VL-026/18 - Surgical Propedeutics and LF.IK_1/L-S-VL-035/18 - Internal Propedeutics	
<b>Course requirements:</b> Exam: - written test at least 60% - oral theoretical part - 3 questions Test evaluation: A: 91 - 100%, B: 81 - 90%, C: 73 - 80%, D: 66 - 72%, E: 60 - 65%, Fx: 59% and less The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: <ol style="list-style-type: none"> <li>1. Obtain basic information about accessibility and possibilities of integrated care of incurable and terminally ill patients.</li> <li>2. Obtain information of basic symptom management to maintain quality of life in the presence of life threatening illness.</li> <li>3. Acquire principles of proper communication with patients and their families in the light of life threatening circumstances leading to framing therapeutical plan with emphasis on patients preferences and values.</li> <li>4. Obtain principles of multidisciplinary and multiprofessional approach that is essential to understanding medical, judicial, ethical, psychosocial and spirirtual dimensions of suffering at the end of life.</li> </ol>	
<b>Class syllabus:</b> Basic charakteristics of palliative medicine: forms and capacities in the health care system. Basic pain assesment and managment Basic symptom management in the presence of incurable illness. Patophysiology of End of life. Prognostication and principles of communication bad news. Assesment of preferencies at the End of Life. Ethical dilemas at the End of Life. Principles of integration of social, psychological and spiritual aspects of care.	
<b>Recommended literature:</b>	

SLÁMA, O. - KABELKA, L. et al. Paliativní medicína pro praxi. 3. vyd. Praha: Galén, 2022. 352 s. ISBN 978-80-7492-627-3

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 31

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Michal Mego, DrSc., MUDr. Andrea Škripeková, PhD., MUDr. Lucia Dzurillová, MUDr. Andrea Sysáková

**Last change:** 26.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.OnK2/L-S-VL-180-5/23	<b>Course title:</b> Palliative Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.IK_1/L-S-VL-035/18 - Internal Propedeutics and LF.ChK1/L-S-VL-026/18 - Surgical Propedeutics	
<b>Course requirements:</b> Exam: - written test at least 60% - oral theoretical part - 3 questions Test evaluation: A: 91 - 100%, B: 81 - 90%, C: 73 - 80%, D: 66 - 72%, E: 60 - 65%, Fx: 59% and less The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: <ol style="list-style-type: none"> <li>1. Obtain basic information about accessibility and possibilities of integrated care of incurable and terminally ill patients.</li> <li>2. Obtain information of basic symptom management to maintain quality of life in the presence of life threatening illness.</li> <li>3. Acquire principles of proper communication with patients and their families in the light of life threatening circumstances leading to framing therapeutical plan with emphasis on patients preferences and values.</li> <li>4. Obtain principles of multidisciplinary and multiprofessional approach that is essential to understanding medical, judicial, ethical, psychosocial and spirirtual dimensions of suffering at the end of life.</li> </ol>	
<b>Class syllabus:</b> Basic charakteristics of palliative medicine: forms and capacities in the health care system. Basic pain assesment and managment Basic symptom management in the presence of incurable illness. Patophysiology of End of life. Prognostication and principles of communication bad news. Assesment of preferencies at the End of Life. Ethical dilemas at the End of Life. Principles of integration of social, psychological and spiritual aspects of care.	
<b>Recommended literature:</b>	

SLÁMA, O. - KABELKA, L. et al. Paliativní medicína pro praxi. 3. vyd. Praha: Galén, 2022. 352 s. ISBN 978-80-7492-627-3

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 5

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Michal Mego, DrSc., MUDr. Andrea Škripeková, PhD., MUDr. Andrea Sysáková

**Last change:** 26.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚPA/L-S-VL-054/25	<b>Course title:</b> Pathological Anatomy 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 48s / 48s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 7	
<b>Recommended semester:</b> 5.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.AÚ/L-S-VL-003/17 - Anatomy 3 and LF.ÚHE/L-S-VL-019/17 - Histology and Embryology 2	
<b>Course requirements:</b> - 100% attendance at the Histopathology seminars - 100% attendance at the Autopsies - 2 written tests (minimum 60% of correct answers) Test evaluation: A: 91-100 %, B: 81-90 %, C: 73-80 %, D: 66-72 %, E: 60-65 %, Fx: <59 %. Autopsy – continuous oral testing of knowledge The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> Etiology and pathogenesis of pathological changes of tissues and organs. Connection between clinical presentation and pathologic-anatomical substrate of diseases. Pathomorphological changes of tissues and organs in correlation with functional changes. <b>Skills:</b> Work with the light microscope. Application of conventional and special staining methods and histochemical methods in differential diagnostics of pathological processes. Molecular-genetic methods in pathology Gross description of pathologic-anatomical changes. Arrangement of final diagnoses in the autopsy protocol.	
<b>Class syllabus:</b> General pathology: methods in pathology, pathology of the cell, regressive and progressive changes. Necrosis, atrophy, metabolic disorders, disorders of blood and lymph circulation, inflammation – acute, chronic, granulomatous, developmental disorders, malnutrition, immunopathology, AIDS, transplantation pathology, environmental pathology, genetically conditioned diseases. General oncology: classification and taxonomy of tumors, precancerosis, cancerogenesis, tumor growth and effect on the organism, benign and malignant neoplasms, histological diagnosis, grading, staging, invasion, metastasis, epithelial and mesenchymal neoplasms, neuroectodermal tumors, mixed tumors, teratomas, germinative tumors, tumors of placenta, mesothelioma. Tumor markers, genetics, epigenetics. Hemoblastoses, hemoblastomas, malignant lymphomas.	

<b>Recommended literature:</b> Harsh Mohan: Patológia, Balneothermia s.r.o. 2011, 966 s. Zámečník J., ed.: PATOLOGIE, Vol 1-3, PRAGER PUBLISHING, 2019, 915s. Robbins and Cotran Pathologic Basis of Disease, 10th Edition, ELSEVIER 2020, 1392 s. Damjanov I.: Atlas of Histopathology, Jaypee Brothers Medical Publishers, 2012, 399s.						
<b>Languages necessary to complete the course:</b> slovak						
<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Ľudovít Danihel, CSc., prof. MUDr. Pavel Babál, CSc., doc. MUDr. Zuzana Čierna, PhD., doc. MUDr. Pavol Janega, PhD., MUDr. Andrea Janegová, PhD., MUDr. Lucia Krivošíková, PhD., MUDr. Kristína Mikuš Kuracinová, PhD., MUDr. Hedviga Štubňová, PhD., MUDr. Michal Palkovič, PhD., MPH, MUDr. Katarína Letkovská, PhD., MUDr. Miriam Bollová, MUDr. Kristína Mosná, PhD., MUDr. Mgr. Vladimír Šišovský, PhD., MUDr. Samuel Horák, PhD.						
<b>Last change:</b> 22.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚPA/L-S-VL-055/18	<b>Course title:</b> Pathological Anatomy 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 48s / 48s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 9	
<b>Recommended semester:</b> 6.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-054/18 - Pathological Anatomy 1 or LF.ÚPA/L-S-VL-054/25 - Pathological Anatomy 1	
<b>Course requirements:</b> - 100% attendance at the Histopathology seminars - 100% attendance at the Autopsies - 2 written tests (minimum 60% of correct answers) Test evaluation: A: 91-100 %, B: 81-90 %, C: 73-80 %, D: 66-72 %, E: 60-65 %, Fx: <59 %. Autopsy – continuous oral testing of knowledge Final examination: - Practical examination in Autopsy – oral form - Description of 1 histological slide - Final written multiple-choice test – minimal score - 75 % - Oral examination with 3 questions 1 – general pathology 1 – oncology 1 – special pathology The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> Morphological changes of different organs in neoplastic and nonneoplastic processes. Classification of tumors of different systems, grading, staging. Etiology, pathogenesis, complications and prognosis of pathological changes in different organs. Pathomorphological changes of tissues and organs in correlation with functional changes. <b>Skills:</b> Use of modern immunohistochemical, molecular biology and ultrastructural methods in diagnostics of disease processes. Basis of histological diagnostics. Conclusion of autopsy protocol on the basis of microscopic and gross findings.	
<b>Class syllabus:</b> Special pathology: Cardiovascular system – diseases of vessels, atherosclerosis, heart diseases, respiratory system – inflammation, allergies, emphysema, tumors, hemopoietic system, Pathology of the spleen, lymphatic nodes, nephropathology – vascular disorders, inflammation, tumors,	

GIT – inflammation, ulcerous colitis, Crohn disease, metabolic disorders, tumors, bones and joints – inflammation, degenerative diseases, myopathies, endocrine system – syndromes, tumors, neuroendocrine system, skin – inflammation, tumors, genitalia – inflammation, sexually transmitted diseases, precanceroses, neoplasm, breast, endometrial dysfunctions, pathology of pregnancy, trophoblast disease, nerve system – trauma, circulation disorders, inflammation, degenerative disorders, tumors, pathology of newborn.					
<b>Recommended literature:</b> Harsh Mohan: Patológia, Balneothermia s.r.o. 2011, 966 s. Zámečník J., ed.: PATOLOGIE, Vol 1-3, PRAGER PUBLISHING, 2019, 915s. Robbins and Cotran Pathologic Basis of Disease, 10th Edition, ELSEVIER 2020, 1392 s. Damjanov I.: Atlas of Histopathology, Jaypee Brothers Medical Publishers, 2012, 399s.					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 2099					
A	B	C	D	E	FX
37,59	20,58	18,72	9,34	10,91	2,86
<b>Lecturers:</b> prof. MUDr. Ľudovít Danihel, CSc., prof. MUDr. Pavel Babál, CSc., doc. MUDr. Zuzana Čierna, PhD., doc. MUDr. Pavol Janega, PhD., MUDr. Andrea Janegová, PhD., MUDr. Lucia Krivošíková, PhD., MUDr. Kristína Mikuš Kuracinová, PhD., MUDr. Kristína Mosná, PhD., MUDr. Hedviga Štubňová, PhD., MUDr. Michal Palkovič, PhD., MPH, MUDr. Mgr. Vladimír Šišovský, PhD., MUDr. Samuel Horák, PhD., MUDr. Katarína Letkovská, PhD., MUDr. Miriam Bollová					
<b>Last change:</b> 02.12.2022					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚPF/L-S-VL-056/25	<b>Course title:</b> Pathological Physiology 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 36s / 36s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 5.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.FyÚ/L-S-VL-014/17 - Physiology 2 and LF.ÚLChB/L-S-VL-042/17 - Medical Biochemistry 2	
<b>Course requirements:</b> - a maximum of one absence is allowed for seminars and practicals. - two written tests (minimum 60% of correct answers) - the overall rating is determined from the average of the ratings obtained - grading scale: A: 91 - 100%, B: 81 – 90%, C: 73 – 80%, D: 66 – 72%, E: 60 – 65%, Fx: 59 - 0%	
<b>Learning outcomes:</b> <b>Knowledge:</b> - The student will acquire a summary of basic knowledge about the etiopathogenetic mechanisms of the origin and course of diseases and conditions, the basics of general pathophysiology and the pathophysiology of individual systems, - the student will be able to analyse the relationship between diseases and pathological conditions and their clinical manifestations, - Based on the understanding of causal relationships, the student will be able to explain the principles of therapeutic interventions. <b>Skills:</b> - The student is able to actively interfere with theoretical and practical models of the function of basic disease states and modify them by applying changed conditions as a result of therapeutic intervention, - the student is able to process the algorithm of the development and progression of basic diseases, - the student is able to integrate knowledge from all completed theoretical disciplines into a complex picture of the origin and development of basic diseases, - completing pathophysiology develops the student's cognitive skills towards the use of logical and creative thinking, - practical exercises develop the student's practical skills in using instruments for measuring basic clinical parameters, - the student is able to search for and assess the reliability of various sources of scientific and clinical research results.	
<b>Class syllabus:</b>	

Syllabus of the subject Pathological Physiology 1 and 2:

General principles and manifestations of diseases: Inflammation. Fever. Pain. Genetically determined alterations. Monogenic pathological states. Carcinogenesis. Immune disorders: immunodeficiencies, allergies, autoimmune disorders. Disorders of the internal environment: hydration, ions, acid-base balance. General adaptation syndrome - stress: benefit, pathology, civilization diseases. Bacteremia, sepsis. Pathophysiology of the respiratory system: Types of hypoxia. Ventilation, diffusion, perfusion disorders. Pneumonia. Bronchitis. Pulmonary emphysema. Bronchial asthma. Bronchiectasis. Cystic fibrosis. Interstitial lung diseases. Respiratory failure. Adult Respiratory Distress Syndrome (ARDS). Lung and bronchial tumors. Pleural diseases. Pneumothorax. Pathophysiology of blood and hematopoietic tissue: Anemia in general. Posthemorrhagic, hemolytic, sideropenic, megaloblastic anemias. Anemia in severe diseases. Platelet and hemocoagulation disorders. Leukocyte disorders - infectious and malignant diseases. Pathophysiology of the cardiovascular system: Contractile function of the myocardium and pumping function of the heart. Cardiac revolution. Metabolism of the heart muscle cell. Left and right heart failure. Pathogenesis of heart failure therapy. Cardiac hypertrophy - concentric, eccentric, physiological, remodeling. Congenital heart defects - non-cyanotic, with possible cyanosis, cyanotic. Valve defects of the aorta, mitral valve, right heart. Cardiomyopathies - primary, secondary. Infectious and bacterial endocarditis. Blood pressure and regulatory mechanisms. Systemic arterial hypertension - primary and secondary hypertension. Pathogenesis of hypertension therapy. Hypotension. Collapse. Shock - hypovolemic, cardiogenic, distributive, obstructive, septic. Coma - pathogenesis of differential diagnosis. Atherogenesis. Stable, unstable atherosclerotic plaque. Ischemic heart disease. Stable and unstable angina pectoris. Myocardial infarction. Pathophysiology of reperfusion injury to the heart - oxygen and calcium paradox. Sudden cardiac death, sudden non-cardiac death. Pathophysiology of pulmonary circulation. Pulmonary edema and its types. Pulmonary hypertension. Pulmonary embolism. Regulation of cerebral circulation, cerebral ischemia. Intracerebral and subarachnoid hemorrhage. Cardiac arrhythmias - supraventricular and ventricular, fibrillation and flutter of atria and ventricles, atrioventricular blocks. Rheumatic fever. Varicose veins. Phlebothrombosis. Chronic venous insufficiency. Pathophysiology of the uropoietic system: Physiological principles of kidney function. Changes in glomerular membrane permeability. Nephritic and nephrotic syndrome. Acute and chronic kidney failure. Glomerulopathies. Tubulointerstitial diseases. Vascular diseases of the kidneys. Urinary tract infections. Urolithiasis. Tumors of the urinary tract. Pathophysiology of the gastrointestinal system: Esophageal diseases. Gastritis. Peptic ulcer of the stomach and duodenum. Pancreatitis - acute and chronic. Cystic fibrosis of the pancreas. Maldigestion. Malabsorption. Diarrhea. Constipation. Irritable bowel syndrome. Intestinal obstruction - ileus. Ulcerative colitis. Crohn's disease. Ischemic colitis. Carcinoma of the esophagus, stomach, colon, liver and pancreas. Gastrointestinal bleeding. Abdominal pain. Pathophysiology of the hepatobiliary system: Hepatitis. Liver failure - acute and chronic. Liver cirrhosis. Portal hypertension. Ascites. Jaundice. Intrahepatic cholestasis. Cholelithiasis. Cholecystitis. Pathophysiology of the endocrine system: Mechanisms of hormone action on target cells and their disorders. Hypothalamic neuroendocrine disorders. Thyroid disorders - hyperthyroidism, hypothyroidism. Parathyroid disorders. Adrenal disorders - Cushing's syndrome, Addison's disease, Conn's syndrome, pheochromocytoma. Gonadal disorders. Diabetes mellitus - type 1 and 2, complications. Metabolic syndrome. Obesity. Gastrointestinal hormones, insulinoma. Pathophysiology of the nervous system: Neuronal damage. Cerebral edema. Intracranial hypertension. Demyelinating diseases. Degenerative diseases of the central nervous system. Epilepsy. Stroke - ischemia, hemorrhage. Encephalitis, meningitis. Myasthenia gravis. Dopaminergic system. Pathophysiology of the autonomic nervous system. Pathogenesis of mental disorders, neuroses. Pathophysiology of the sensory system: Hearing

<p>disorders. Visual disorders. Pathophysiology of the skeletal system: Regulation of calcium metabolism, osteoporosis. Rheumatoid arthritis. Alterations in hyperuricemia.</p> <p>Lectures of the subject Pathological Physiology 1:</p> <p>Haemodynamics of the circulation, valvular disorders. Risk factors of cardiovascular system and their modification. Blood pressure regulation. Cardiac rhythm disorders, sudden cardiac death. Collapse. Shock. Disorders of microcirculation. Heart failure, pathogenesis of therapy. Pulmonary embolism, pulmonary hypertension. Cor pulmonale. Right-sided heart failure. Metabolic syndrome. Obesity and its modification. Obstructive and restrictive pulmonary diseases. Pneumonia. Respiratory insufficiency. Carcinogenesis. Pathophysiology of tumors. Adaptation, general adaptation syndrome-stress. Molecular medicine. Intracellular signalizations.</p> <p>Seminars and practicals of the subject Pathological Physiology 1:</p> <p>Pathophysiology as a pre-clinical subject. Pathogenesis of inflammation, fever, pain. Disorders of water, Na<sup>+</sup>, and K<sup>+</sup> metabolism. Disorders of acid-base balance. Blood pressure regulation. Hypertension. Heart electrical activity. Dysrhythmias. Collapse, shock, and disorders of microcirculation. Endothelial dysfunction. Atherosclerosis. Stable and unstable plaque. Complications of AS. Coronary heart disease, myocardial infarction. Acquired valvular heart disease. Congenital heart defects. General adaptation syndrome – stress. Anemic syndrome and white blood cell disorders. Pulmonary embolism. Pulmonary hypertension. Cor pulmonale.</p>																				
<p><b>Recommended literature:</b></p> <ul style="list-style-type: none"> <li>- Hulín : Patofyziológia. 6. vydanie, Bratislava, SAP 2002, 1397 s.</li> <li>- Nečas, E. et al. Obecná patologická fyziologie. Praha: Karolinum 2021, 312 s. ISBN 9788024646336.</li> <li>- Nečas, E. et al.: Patologická fyziologie orgánových systémů. 1. Praha: Karolinum, 2006, 380 s. ISBN 80-246-0615-1.</li> <li>- Nečas, E. et al.: Patologická fyziologie orgánových systémů. 2. Praha: Karolinum, 2006, 396 s. ISBN 80-246-0674-7.</li> <li>- Pávková Goldbergová, M. et al. Patofyziologie v obrazech. 1. vyd. Brno: Masarykova univerzita, Lékařská fakulta, 2016. 186 s. ISBN 978-80-210-8323-3.</li> <li>- Silbernagel, S., Lang, F.: Atlas patofyziologie člověka. Praha: Grada, 2001, 404 s. ISBN 80-7169-968-3.</li> </ul>																				
<p><b>Languages necessary to complete the course:</b></p> <p>Slovak</p>																				
<p><b>Notes:</b></p>																				
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 0</p> <table border="1"> <thead> <tr> <th>A</th><th>ABS0</th><th>B</th><th>C</th><th>D</th><th>E</th><th>FX</th></tr> </thead> <tbody> <tr> <td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td><td>0,0</td></tr> </tbody> </table>							A	ABS0	B	C	D	E	FX	0,0	0,0	0,0	0,0	0,0	0,0	0,0
A	ABS0	B	C	D	E	FX														
0,0	0,0	0,0	0,0	0,0	0,0	0,0														
<p><b>Lecturers:</b> MUDr. RNDr. Ľudovít Paulis, PhD., prof. MUDr. Marián Bernadič, CSc., prof. MUDr. Fedor Šimko, CSc., doc. MUDr. Ing. Peter Celec, DrSc., prof. MUDr. Barbara Ukropcová, PhD., prof. MUDr. Beáta Mladosičevičová, CSc.</p>																				
<p><b>Last change:</b> 22.01.2025</p>																				
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>																				

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚPF/L-S-VL-057/18	<b>Course title:</b> Pathological Physiology 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 36s / 36s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 8	
<b>Recommended semester:</b> 6.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPF/L-S-VL-056/18 - Pathological Physiology 1 or LF.ÚPF/L-S-VL-056/25 - Pathological Physiology 1	
<b>Course requirements:</b> - a maximum of one absence is allowed for seminars and practicals. - two written tests (minimum 60% of correct answers) - grading scale: A: 91 - 100%, B: 81 – 90%, C: 73 – 80%, D: 66 – 72%, E: 60 – 65%, Fx: 59 - 0% <b>Final exam:</b> - meeting all the subject requirements - final exam: 3 questions (general pathophysiology, pathophysiology of the cardiovascular system, pathophysiology of other systems). The question on pathophysiology of the cardiovascular system is answered in writing; questions on general pathophysiology and pathophysiology of other systems are answered orally.	
<b>Learning outcomes:</b> <b>Knowledge:</b> - The student will acquire a summary of basic knowledge about the etiopathogenetic mechanisms of the origin and course of diseases and conditions, the basics of general pathophysiology and the pathophysiology of individual systems, - the student will be able to analyse the relationship between diseases and pathological conditions and their clinical manifestations, - Based on the understanding of causal relationships, the student will be able to explain the principles of therapeutic interventions. <b>Skills:</b> - The student is able to actively interfere with theoretical and practical models of the function of basic disease states and modify them by applying changed conditions as a result of therapeutic intervention, - the student is able to process the algorithm of the development and progression of basic diseases, - the student is able to integrate knowledge from all completed theoretical disciplines into a complex picture of the origin and development of basic diseases, - completing pathophysiology develops the student's cognitive skills towards the use of logical and creative thinking,	



- practical exercises develop the student's practical skills in using instruments for measuring basic clinical parameters,
- the student is able to search for and assess the reliability of various sources of scientific and clinical research results.

### **Class syllabus:**

Syllabus of the subject Pathological Physiology 1 and 2:

General principles and manifestations of diseases: Inflammation. Fever. Pain. Genetically determined alterations. Monogenic pathological states. Carcinogenesis. Immune disorders: immunodeficiencies, allergies, autoimmune disorders. Disorders of the internal environment: hydration, ions, acid-base balance. General adaptation syndrome - stress: benefit, pathology, civilization diseases. Bacteremia, sepsis. Pathophysiology of the respiratory system: Types of hypoxia. Ventilation, diffusion, perfusion disorders. Pneumonia. Bronchitis. Pulmonary emphysema. Bronchial asthma. Bronchiectasis. Cystic fibrosis. Interstitial lung diseases. Respiratory failure. Adult Respiratory Distress Syndrome (ARDS). Lung and bronchial tumors. Pleural diseases. Pneumothorax. Pathophysiology of blood and hematopoietic tissue: Anemia in general. Posthemorrhagic, hemolytic, sideropenic, megaloblastic anemias. Anemia in severe diseases. Platelet and hemocoagulation disorders. Leukocyte disorders - infectious and malignant diseases. Pathophysiology of the cardiovascular system: Contractile function of the myocardium and pumping function of the heart. Cardiac revolution. Metabolism of the heart muscle cell. Left and right heart failure. Pathogenesis of heart failure therapy. Cardiac hypertrophy - concentric, eccentric, physiological, remodeling. Congenital heart defects - non-cyanotic, with possible cyanosis, cyanotic. Valve defects of the aorta, mitral valve, right heart. Cardiomyopathies - primary, secondary. Infectious and bacterial endocarditis. Blood pressure and regulatory mechanisms. Systemic arterial hypertension - primary and secondary hypertension. Pathogenesis of hypertension therapy. Hypotension. Collapse. Shock - hypovolemic, cardiogenic, distributive, obstructive, septic. Coma - pathogenesis of differential diagnosis. Atherogenesis. Stable, unstable atherosclerotic plaque. Ischemic heart disease. Stable and unstable angina pectoris. Myocardial infarction. Pathophysiology of reperfusion injury to the heart - oxygen and calcium paradox. Sudden cardiac death, sudden non-cardiac death. Pathophysiology of pulmonary circulation. Pulmonary edema and its types. Pulmonary hypertension. Pulmonary embolism. Regulation of cerebral circulation, cerebral ischemia. Intracerebral and subarachnoid hemorrhage. Cardiac arrhythmias - supraventricular and ventricular, fibrillation and flutter of atria and ventricles, atrioventricular blocks. Rheumatic fever. Varicose veins. Phlebothrombosis. Chronic venous insufficiency. Pathophysiology of the uropoietic system: Physiological principles of kidney function. Changes in glomerular membrane permeability. Nephritic and nephrotic syndrome. Acute and chronic kidney failure. Glomerulopathies. Tubulointerstitial diseases. Vascular diseases of the kidneys. Urinary tract infections. Urolithiasis. Tumors of the urinary tract. Pathophysiology of the gastrointestinal system: Esophageal diseases. Gastritis. Peptic ulcer of the stomach and duodenum. Pancreatitis - acute and chronic. Cystic fibrosis of the pancreas. Maldigestion. Malabsorption. Diarrhea. Constipation. Irritable bowel syndrome. Intestinal obstruction - ileus. Ulcerative colitis. Crohn's disease. Ischemic colitis. Carcinoma of the esophagus, stomach, colon, liver and pancreas. Gastrointestinal bleeding. Abdominal pain. Pathophysiology of the hepatobiliary system: Hepatitis. Liver failure - acute and chronic. Liver cirrhosis. Portal hypertension. Ascites. Jaundice. Intrahepatic cholestasis. Cholelithiasis. Cholecystitis. Pathophysiology of the endocrine system: Mechanisms of hormone action on target cells and their disorders. Hypothalamic neuroendocrine disorders. Thyroid disorders - hyperthyroidism, hypothyroidism. Parathyroid disorders. Adrenal disorders - Cushing's syndrome, Addison's disease, Conn's syndrome, pheochromocytoma. Gonadal disorders. Diabetes mellitus - type 1 and 2, complications. Metabolic syndrome. Obesity. Gastrointestinal hormones, insulinoma. Pathophysiology of the nervous system: Neuronal damage.

Cerebral edema. Intracranial hypertension. Demyelinating diseases. Degenerative diseases of the central nervous system. Epilepsy. Stroke - ischemia, hemorrhage. Encephalitis, meningitis. Myasthenia gravis. Dopaminergic system. Pathophysiology of the autonomic nervous system. Pathogenesis of mental disorders, neuroses. Pathophysiology of the sensory system: Hearing disorders. Visual disorders. Pathophysiology of the skeletal system: Regulation of calcium metabolism, osteoporosis. Rheumatoid arthritis. Alterations in hyperuricemia.

Lectures of the subject Pathological Physiology 2:

Ischemic heart disease. Myocardial infarction. Reperfusion syndrome of the heart. Calcium and oxygen paradox. Duodenal and gastric ulcer. Pancreatitis. Ileus. Liver cirrhosis. Liver failure. Proteinuria. Hematuria. Nephrotic and nephritic syndrome. Acute and chronic renal failure. Anemic syndrome. Anemias. Diseases of suprarenal gland, hypothalamus, and hypophysis. Diseases of thyroid gland, parathyroid glands. Calcium regulation. Insulin resistance. Diabetes mellitus and its complications. Diseases of leukocytes and thrombocytes. Disorders of coagulation. Stroke. Intracranial hypertension and edema.

Seminars and practicals of the subject Pathological Physiology 2:

Heart failure. Principles of therapy. Stroke. Intracranial hypertension and cerebral edema. Restrictive and obstructive respiratory disorders. Pneumonia. Respiratory insufficiency. Gastric and duodenal ulcer. Pancreatitis. Ileus. Cirrhosis. Hepatic failure. Proteinuria, hematuria, nephritic and nephrotic syndrome, urine investigation. Acute and chronic renal failure. Hyper- and hypothyroidism. Disorders of parathyroid glands. Metabolic syndrome, obesity. Diabetes mellitus, insulin resistance. Pathophysiology of malignant tumors. Carcinogenesis. Hemostasis and bleeding disorders.

#### **Recommended literature:**

- Hulín : Patofyziológia. 6. vydanie, Bratislava, SAP 2002, 1397 s.
- Nečas, E. et al. Obecná patologická fyziologie. Praha: Karolinum 2021, 312 s. ISBN 9788024646336.
- Nečas, E. et al.: Patologická fyziologie orgánových systémů. 1. Praha: Karolinum, 2006, 380 s. ISBN 80-246-0615-1.
- Nečas, E. et al.: Patologická fyziologie orgánových systémů. 2. Praha: Karolinum, 2006, 396 s. ISBN 80-246-0674-7.
- Pávková Goldbergová, M. et al. Patofyziologie v obrazech. 1. vyd. Brno: Masarykova univerzita, Lékařská fakulta, 2016. 186 s. ISBN 978-80-210-8323-3.
- Silbernagel, S., Lang, F.: Atlas patofyziologie člověka. Praha: Grada, 2001, 404 s. ISBN 80-7169-968-3.

#### **Languages necessary to complete the course:**

Slovak

#### **Notes:**

#### **Past grade distribution**

Total number of evaluated students: 2134

A	B	C	D	E	FX
29,94	18,79	21,32	11,11	13,4	5,44

**Lecturers:** prof. MUDr. Fedor Šimko, CSc., prof. MUDr. Marián Bernadič, CSc., prof. MUDr. Beáta Mladosičiová, CSc., doc. MUDr. Ing. Peter Celec, DrSc., prof. MUDr. Barbara Ukropcová, PhD., MUDr. RNDr. Ľudovít Paulis, PhD., doc. MUDr. RNDr. Roman Gardlík, PhD., MUDr. Kristína Repová, PhD., doc. MUDr. Tomáš Baka, PhD., doc. RNDr. Oľga Pecháňová, DrSc., MUDr. Peter Stanko, PhD.

<b>Last change:</b> 04.06.2024
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026					
<b>University:</b> Comenius University Bratislava					
<b>Faculty:</b> Faculty of Medicine					
<b>Course ID:</b> LF.KDCh/L-S-VL-119-4/19		<b>Course title:</b> Pediatric Surgery			
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning					
<b>Type, volume, methods and workload of the student - additional information</b> COS					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 7.					
<b>Educational level:</b> I.II.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 201					
A	B	C	D	E	FX
99,0	0,0	0,5	0,5	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Jozef Babala, PhD., doc. MUDr. Ján Trnka, CSc., doc. MUDr. František Horn, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026					
<b>University:</b> Comenius University Bratislava					
<b>Faculty:</b> Faculty of Medicine					
<b>Course ID:</b> LF.KDCh/L-S-VL-119-5/19		<b>Course title:</b> Pediatric Surgery			
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning					
<b>Type, volume, methods and workload of the student - additional information</b> COS					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 9.					
<b>Educational level:</b> I.II.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 133					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Jozef Babala, PhD., doc. MUDr. Ján Trnka, CSc., doc. MUDr. František Horn, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚFKF/L-S-VL-011/25	<b>Course title:</b> Pharmacology 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 36s / 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 6.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPF/L-S-VL-056/18 - Pathological Physiology 1 or LF.ÚPF/L-S-VL-056/25 - Pathological Physiology 1	
<b>Course requirements:</b> - 100% attendance at the practicals, - 2 written test (minimum 60% of correct answers), - elaboration and presentation of the seminar essay. Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 – 0 %. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> To acquire general knowledge on: - basic mechanisms of drug action, - fate of the drug in the body, - risks of pharmacotherapy, - preclinical and clinical evaluation of drugs. To acquire knowledge about drugs of selected pharmacodynamic classes with emphasis on: mechanisms of drug action, characteristic pharmacokinetic properties, typical adverse drug reactions, indications, contraindications and clinically significant interactions. <b>Skills:</b> Ability to use and apply the knowledge from general pharmacology in subsequent study of special pharmacology.	
<b>Class syllabus:</b> Medicines and society. Drug information sources. Nomenclature. Principles of drug prescription. How drugs act. Mechanisms of drug action on molecular level. Receptors. Basic principles of the movement of substances in the body. Basic pharmacokinetic concepts. Pharmacogenetics. Pharmacoepidemiology. Pharmacoeconomics. Pharmacovigilance. Adverse drug reactions. Clinical and preclinical drug evaluation. Good Laboratory Practice. Good Clinical Practice. Risks of pharmacotherapy in pregnancy and during lactation. Risks of pharmacotherapy in elderly. Pharmacology of the autonomic nervous system. Sympathetic nervous system.	

Parasympathetic nervous system. Pain and its pharmacotherapeutic approach. Inflammation and its pharmacotherapeutic approach. NSAIDs. Opioid analgesics. Antirheumatics. Biologic drugs. Cytostatics. X-ray contrast media. Immunosuppressives and immunostimulants. Drugs influencing the smooth muscles, motor activities and secretion in the airways. Antiasthmatic drugs. Medicaments used in the therapy of allergic diseases. Drugs affecting digestion, food intake. Drugs used in the treatment of peptic and duodenal ulcer. Drugs used in disorders of the pancreas, liver and bile ducts. Drugs used in functional gastrointestinal disorders and other intestinal diseases, intestinal adsorbents. Intoxications and antidotes.						
<b>Recommended literature:</b> Mirossay L., Mojžiš J. a kol.: Základná farmakológia a farmakoterapia I + II. 2. prepracované vydanie. Košice: EQUILIBRIA, 2021, 1162 s. Švihovec J. a kol.: Farmakologie. 1. vydanie. Praha: Grada, 2018. 1008 s. Gažová A., Kyselovič J.: Princípy receptúrnej propedeutiky [elektronický dokument]. Bratislava: Berlina, 2020, 114 s.						
<b>Languages necessary to complete the course:</b> Slovak						
<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Martin Wawruch, PhD., prof. MUDr. Viera Kristová, CSc., prof. MUDr. Milan Kriška, DrSc., doc. PharmDr. Andrea Gažová, PhD., MUDr. Kristína Hudecová, PhD., MUDr. Miriam Petrová, PhD., MUDr. Vasil Hricák, doc. MUDr. Monika Laššánová, PhD., doc. MUDr. Jana Tisoňová, PhD., MUDr. Andrea Raganová, PhD., MUDr. Róbert Vojtko, PhD.						
<b>Last change:</b> 29.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚFKF/L-S-VL-012/19	<b>Course title:</b> Pharmacology 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 36s / 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 7	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚFKF/L-S-VL-011/18 - Pharmacology 1 or LF.ÚFKF/L-S-VL-011/25 - Pharmacology 1 and LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> - 100% attendance at the practicals, - 2 written test (minimum 60% of correct answers), - elaboration and presentation of the seminar essay. <b>Final exam:</b> - written part of exam (minimum 60% of correct answers), - oral part of exam: 3 questions (basic pharmacology, special pharmacology, selected drugs). <b>Test evaluation:</b> A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 – 0 %. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> To acquire knowledge on drugs of particular pharmacodynamic classes with emphasis on: - mechanisms of drug action, - pharmacokinetics, - clinical application, - adverse effects, - drug interactions. <b>Skills:</b> Ability to apply the knowledge of pharmacology in clinical disciplines. Ability to judge the risk/benefit ratio of drugs in an individual patient.	
<b>Class syllabus:</b> Drugs used in the therapy of cardiovascular disorders. Antihypertensives. Vasodilator drugs. Drugs used in the therapy of heart failure. Cardiotonics. Antidysrhythmics. Drugs used in the therapy of ischemic heart disease. Antianginal drugs. Hypolipidemics. Antithrombotics. CNS drugs. Antidepressants. Antipsychotics. Hypnotics. Anxiolytics. Antiepileptics. Antiparkinson agents. Cognitive enhancers. Drugs influencing the hormonal system. Antidiabetics. Pituitary and adrenal hormones. Thyroid hormones. Glucocorticoids. Corticosteroid selection and treatment strategy.	



Drugs used in the treatment of osteoporosis. Female and male hormones. Contraceptives. Hormone replacement therapy. Antimicrobials. Drugs influencing the urogenital system. Characteristics of beta-lactams, macrolides, tetracyclines, quinolones and aminoglycosides. Antituberculotics. Antivirals. Antifungals. Antiparasitics. Antimicrobial treatment strategy and principles. Vitamins in therapy. Principles of pharmacotherapeutic evaluation in individualized therapy. Drug interactions and their clinical significance.					
<b>Recommended literature:</b> Mirossay L., Mojžiš J. a kol.: Základná farmakológia a farmakoterapia I + II. 2. prepracované vydanie. Košice: EQUILIBRIA, 2021, 1162 s. Švihovec J. a kol.: Farmakologie. 1. vydanie. Praha: Grada, 2018. 1008 s. Kristová, V., Wawruch, M., Tisoňová, J. a kol. Kardiovaskulárne liečivá. 2. doplnené vydanie. Bratislava: Univerzita Komenského, 2019. 302 s.					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 1758					
A	B	C	D	E	FX
46,08	20,71	18,6	8,53	4,78	1,31
<b>Lecturers:</b> prof. MUDr. Martin Wawruch, PhD., prof. MUDr. Viera Kristová, CSc., prof. MUDr. Milan Kriška, DrSc., doc. MUDr. Monika Laššánová, PhD., MUDr. Miriam Petrová, PhD., doc. MUDr. Jana Tisoňová, PhD., doc. PharmDr. Andrea Gažová, PhD., MUDr. Kristína Hudecová, PhD., MUDr. Andrea Raganová, PhD., MUDr. Róbert Vojtko, PhD.					
<b>Last change:</b> 31.05.2024					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚTVŠ/L-S-VL-075/16	<b>Course title:</b> Physical Training 1
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% participation in seminars	
<b>Learning outcomes:</b> Universal development of upcoming physician. Interdisciplinary connection between physical education, utilizing of physical education and sports in physical practice as one of the main resources to prevent illness and adopting importance of physical activity for personal development.	
<b>Class syllabus:</b> Teaching theory, methodology, and practical application of the following sports: basketball, volleyball, football/soccer, interior football/soccer, floorball, tennis, table tennis, badminton, swimming, aerobics, Zumba, hiking (fitness, recreational, water, cycling), and winter sports based on students' interests (skiing, snowboarding, skialp). Basics and theory of weightlifting. In team sports, training and understanding of basics game requirements for the individual and basic combinations of game possibilities. Basics of rules, strategies, and tactics for the chosen sport. The best performing students have the opportunity to participate in representing faculty in the University League in volleyball, indoor football/soccer, floorball, basketball, and swimming. Exercises for the physically disabled or injured – weight room, gym, swimming pool. Optional winter training camp.	
<b>Recommended literature:</b> 1. ARGAJ, G. a kol. Pohybové hry pre telesnú a športovú výchovu. Univerzita Komenského, Bratislava. 2009. 83 s. ISBN: 80-223-2602-5 2. Core Tréning. 2014. Slovart, 224s. ISBN 978-80-556-1183-9 3. STOWASSER, J. a kolektív: Vodná turistika, Učebné texty pre školenie cvičiteľov. Bratislava: Šport, 1988. 204 s. 4. VALJENT, Z. Aktivní životní styl vysokoškoláků (studentů Fakulty elektrotechnické ČVUT v Praze). Disertační práce. Praha: České vysoké učení technické v Praze, 2010	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>
Total number of evaluated students: 3161
ABS0
100,0
<b>Lecturers:</b> PaedDr. Róbert Važan, PhD., Mgr. Ján Beracka, Mgr. Barbora Kociánová, PhD., Mgr. Michal Korman, Mgr. Henrich Krč, PhD., Mgr. Veronika Lovášová, PhD.
<b>Last change:</b> 30.05.2024
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚTVŠ/L-S-VL-076/16	<b>Course title:</b> Physical Training 2
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% participation in seminars	
<b>Learning outcomes:</b> Universal development of upcoming physician. Interdisciplinary connection between physical education, utilizing of physical education and sports in physical practice as one of the main resources to prevent illness and adopting importance of physical activity for personal development.	
<b>Class syllabus:</b> Teaching theory, methodology, and practical application of the following sports: basketball, volleyball, football/soccer, interior football/soccer, floorball, tennis, table tennis, badminton, swimming, aerobics, Zumba, hiking (fitness, recreational, water, cycling), and winter sports based on students' interests (skiing, snowboarding, skialp). Basics and theory of weightlifting. In team sports, training and understanding of basics game requirements for the individual and basic combinations of game possibilities. Basics of rules, strategies, and tactics for the chosen sport. The best performing students have the opportunity to participate in representing faculty in the University League in volleyball, indoor football/soccer, floorball, basketball, and swimming. Exercises for the physically disabled or injured – weight room, gym, swimming pool. Optional winter training camp.	
<b>Recommended literature:</b> 1. ARGAJ, G. a kol. Pohybové hry pre telesnú a športovú výchovu. Univerzita Komenského, Bratislava. 2009. 83 s. ISBN: 80-223-2602-5 2. Core Tréning. 2014. Slovart, 224s. ISBN 978-80-556-1183-9 3. STOWASSER, J. a kolektív: Vodná turistika, Učebné texty pre školenie cvičiteľov. Bratislava: Šport, 1988. 204 s. 4. VALJENT, Z. Aktivní životní styl vysokoškoláků (studentů Fakulty elektrotechnické ČVUT v Praze). Disertační práce. Praha: České vysoké učení technické v Praze, 2010	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>
Total number of evaluated students: 3136
ABS0
100,0
<b>Lecturers:</b> PaedDr. Róbert Vážan, PhD., Mgr. Ján Beracka, Mgr. Barbora Kociánová, PhD., Mgr. Michal Korman, Mgr. Henrich Krč, PhD., Mgr. Veronika Lovášová, PhD.
<b>Last change:</b> 30.05.2024
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚTVŠ/L-S-VL-077/17	<b>Course title:</b> Physical Training 3
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 3.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% participation in seminars	
<b>Learning outcomes:</b> Universal development of upcoming physician. Interdisciplinary connection between physical education, utilizing of physical education and sports in physical practice as one of the main resources to prevent illness and adopting importance of physical activity for personal development.	
<b>Class syllabus:</b> Teaching theory, methodology, and practical application of the following sports: basketball, volleyball, football/soccer, interior football/soccer, floorball, tennis, table tennis, badminton, swimming, aerobics, Zumba, hiking (fitness, recreational, water, cycling), and winter sports based on students' interests (skiing, snowboarding, skialp). Basics and theory of weightlifting. In team sports, training and understanding of basics game requirements for the individual and basic combinations of game possibilities. Basics of rules, strategies, and tactics for the chosen sport. The best performing students have the opportunity to participate in representing faculty in the University League in volleyball, indoor football/soccer, floorball, basketball, and swimming. Exercises for the physically disabled or injured – weight room, gym, swimming pool. Optional winter training camp.	
<b>Recommended literature:</b> 1. ARGAJ, G. a kol. Pohybové hry pre telesnú a športovú výchovu. Univerzita Komenského, Bratislava. 2009. 83 s. ISBN: 80-223-2602-5 2. Core Tréning. 2014. Slovart, 224s. ISBN 978-80-556-1183-9 3. STOWASSER, J. a kolektív: Vodná turistika, Učebné texty pre školenie cvičiteľov. Bratislava: Šport, 1988. 204 s. 4. VALJENT, Z. Aktivní životní styl vysokoškoláků (studentů Fakulty elektrotechnické ČVUT v Praze). Disertační práce. Praha: České vysoké učení technické v Praze, 2010	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>
Total number of evaluated students: 2691
ABS0
100,0
<b>Lecturers:</b> PaedDr. Róbert Vážan, PhD., Mgr. Ján Beracka, Mgr. Michal Korman, Mgr. Gabriela Lamačková, Mgr. Veronika Lovásová, PhD., Mgr. Barbora Kociánová, PhD., Mgr. Henrich Krč, PhD.
<b>Last change:</b> 30.05.2024
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚTVŠ/L-S-VL-078/17	<b>Course title:</b> Physical Training 4
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 4.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% participation in seminars	
<b>Learning outcomes:</b> Universal development of upcoming physician. Interdisciplinary connection between physical education, utilizing of physical education and sports in physical practice as one of the main resources to prevent illness and adopting importance of physical activity for personal development.	
<b>Class syllabus:</b> Teaching theory, methodology, and practical application of the following sports: basketball, volleyball, football/soccer, interior football/soccer, floorball, tennis, table tennis, badminton, swimming, aerobics, Zumba, hiking (fitness, recreational, water, cycling), and winter sports based on students' interests (skiing, snowboarding, skialp). Basics and theory of weightlifting. In team sports, training and understanding of basics game requirements for the individual and basic combinations of game possibilities. Basics of rules, strategies, and tactics for the chosen sport. The best performing students have the opportunity to participate in representing faculty in the University League in volleyball, indoor football/soccer, floorball, basketball, and swimming. Exercises for the physically disabled or injured – weight room, gym, swimming pool. Optional winter training camp.	
<b>Recommended literature:</b> 1. ARGAJ, G. a kol. Pohybové hry pre telesnú a športovú výchovu. Univerzita Komenského, Bratislava. 2009. 83 s. ISBN: 80-223-2602-5 2. Core Tréning. 2014. Slovart, 224s. ISBN 978-80-556-1183-9 3. STOWASSER, J. a kolektív: Vodná turistika, Učebné texty pre školenie cvičiteľov. Bratislava: Šport, 1988. 204 s. 4. VALJENT, Z. Aktivní životní styl vysokoškoláků (studentů Fakulty elektrotechnické ČVUT v Praze). Disertační práce. Praha: České vysoké učení technické v Praze, 2010	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	



<b>Past grade distribution</b>
Total number of evaluated students: 2654
ABS0
100,0
<b>Lecturers:</b> PaedDr. Róbert Važan, PhD., Mgr. Barbora Kociánová, PhD., Mgr. Michal Korman, Mgr. Henrich Krč, PhD., Mgr. Veronika Lovásová, PhD.
<b>Last change:</b> 30.05.2024
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚTVŠ/L-S-VL-079/18	<b>Course title:</b> Physical Training 5
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 5.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% participation in seminars	
<b>Learning outcomes:</b> Universal development of upcoming physician. Interdisciplinary connection between physical education, utilizing of physical education and sports in physical practice as one of the main resources to prevent illness and adopting importance of physical activity for personal development.	
<b>Class syllabus:</b> Teaching theory, methodology, and practical application of the following sports: basketball, volleyball, football/soccer, interior football/soccer, floorball, tennis, table tennis, badminton, swimming, aerobics, Zumba, hiking (fitness, recreational, water, cycling), and winter sports based on students' interests (skiing, snowboarding, skialp). Basics and theory of weightlifting. In team sports, training and understanding of basics game requirements for the individual and basic combinations of game possibilities. Basics of rules, strategies, and tactics for the chosen sport. The best performing students have the opportunity to participate in representing faculty in the University League in volleyball, indoor football/soccer, floorball, basketball, and swimming. Exercises for the physically disabled or injured – weight room, gym, swimming pool. Optional winter training camp.	
<b>Recommended literature:</b> 1. ARGAJ, G. a kol. Pohybové hry pre telesnú a športovú výchovu. Univerzita Komenského, Bratislava. 2009. 83 s. ISBN: 80-223-2602-5 2. Core Tréning. 2014. Slovart, 224s. ISBN 978-80-556-1183-9 3. STOWASSER, J. a kolektív: Vodná turistika, Učebné texty pre školenie cvičiteľov. Bratislava: Šport, 1988. 204 s. 4. VALJENT, Z. Aktivní životní styl vysokoškoláků (studentů Fakulty elektrotechnické ČVUT v Praze). Disertační práce. Praha: České vysoké učení technické v Praze, 2010	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>
Total number of evaluated students: 2123
ABS0
100,0
<b>Lecturers:</b> PaedDr. Róbert Vážan, PhD., Mgr. Ján Beracka, Mgr. Barbora Kociánová, PhD., Mgr. Michal Korman, Mgr. Henrich Krč, PhD., Mgr. Veronika Lovášová, PhD.
<b>Last change:</b> 30.05.2024
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚTVŠ/L-S-VL-080/18	<b>Course title:</b> Physical Training 6
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 1	
<b>Recommended semester:</b> 6.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% participation in seminars	
<b>Learning outcomes:</b> Universal development of upcoming physician. Interdisciplinary connection between physical education, utilizing of physical education and sports in physical practice as one of the main resources to prevent illness and adopting importance of physical activity for personal development.	
<b>Class syllabus:</b> Teaching theory, methodology, and practical application of the following sports: basketball, volleyball, football/soccer, interior football/soccer, floorball, tennis, table tennis, badminton, swimming, aerobics, Zumba, hiking (fitness, recreational, water, cycling), and winter sports based on students' interests (skiing, snowboarding, skialp). Basics and theory of weightlifting. In team sports, training and understanding of basics game requirements for the individual and basic combinations of game possibilities. Basics of rules, strategies, and tactics for the chosen sport. The best performing students have the opportunity to participate in representing faculty in the University League in volleyball, indoor football/soccer, floorball, basketball, and swimming. Exercises for the physically disabled or injured – weight room, gym, swimming pool. Optional winter training camp.	
<b>Recommended literature:</b> ARGAJ, G. a kol. Pohybové hry pre telesnú a športovú výchovu. Univerzita Komenského, Bratislava. 2009. 83 s. ISBN: 80-223-2602-5 Core Tréning. 2014. Slovart, 224s. ISBN 978-80-556-1183-9 STOWASSER, J. a kolektív: Vodná turistika, Učebné texty pre školenie cvičiteľov. Bratislava: Šport, 1988. 204 s. VALJENT, Z. Aktivní životní styl vysokoškoláků (studentů Fakulty elektrotechnické ČVUT v Praze). Disertační práce. Praha: České vysoké učení technické v Praze, 2010	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>
Total number of evaluated students: 2103
ABS0
100,0
<b>Lecturers:</b> PaedDr. Róbert Vážan, PhD., Mgr. Ján Beracka, Mgr. Barbora Kociánová, PhD., Mgr. Michal Korman, Mgr. Henrich Krč, PhD., Mgr. Veronika Lovášová, PhD.
<b>Last change:</b> 30.05.2024
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.FyÚ/L-S-VL-013/25	<b>Course title:</b> Physiology 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 60s / 60s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 8	
<b>Recommended semester:</b> 3.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the practicals/seminars/TBL - to complete all written assignments and presentations - to pass successfully 4 written tests after completing a unit/organ system (in order to pass, it is requested to obtain in each test minimum 70 % of the maximum 40 points) Evaluation: A: 95 - 100 %, B: 89 – 94 %, C: 83 – 88 %, D: 77 – 82 %, E: 70 – 76 %, Fx: 69 % or less The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: Knowledge of facts from the topics: physiology of blood, excitable tissues, respiration, digestive system, nutrition and metabolism. Understanding the physiological processes taking place in the organ systems, their interrelationships and regulations. Ability to apply physiological principles in the interpretation of clinical manifestations, as well as in the field of healthy lifestyle and disease prevention. Skills: Ability to perform selected analyses of blood, examinations of respiratory system, excitable tissues, metabolism, nutrition and to evaluate their results. Basic skills in clinical examinations and measurements (cross match test, determination of metabolic rate, evaluation of nutritional status, measurement of muscle strength, spirometry, oximetry, etc.) and understanding of their physiological principles. Ability to apply knowledge of physiology in solving simulated clinical problems and cases. Basic skills in understanding and interpreting graphic outputs from examination methods using instrumental technologies.	
<b>Class syllabus:</b> Lectures: Blood physiology: Functions, composition and properties of blood, hematocrit and erythrocyte sedimentation rate. Blood plasma – composition and functions, osmotic and oncotic pressure. Erythrocytes – characteristics and functions, haemoglobin. Leukocytes – characteristics and functions, immunization. Haemostasis. Blood groups - ABO system, transfusion and compatibility, cross matching test. Blood groups - Rh factor, transfusion and compatibility, cross matching test. Haemopoiesis	

General physiology and neurophysiology, physiology of the muscle: Basic principles of physiological regulations: feedback mechanism, homeostasis. Resting transmembrane potential. Receptor (generator) potential, coding of the stimulus strength on the receptive and conductive membrane. Function of the receptors, classification, sensory modalities, adaptation of the receptors. Action potential, factors determining generation of the action potential, the „all or nothing“ law, refractory periods. Peripheral nerve – its structure and regeneration, types of nerve fibres, conduction of the action potential on a nerve fibre, axon action potential and compound action potential. Classification of neurons and synapses, excitatory and inhibitory postsynaptic potentials, ionotropic and metabotropic receptors, function of ion channels. Neuromuscular transmission - function of the motor end-plate, excitation-contraction coupling in the skeletal muscle. Motor unit, regulation of the strength of muscle contraction, muscle fatigue. Classification of the skeletal muscles, types of muscle fibres and muscle contractions. Classification, excitation and contraction of the smooth muscle. Reflex, reflex arc, classification of reflexes

Physiology of the respiratory system: Functions of the respiratory passageways, regulation of the smooth muscles in the respiratory passageways, ciliary activity and mucus in the respiratory passageways, cough and sneezing.

Mechanism of inspiration and expiration. Intrapleural and intrapulmonary pressures and their changes during respiratory cycle. Lung volumes and capacities. Lung ventilation and its changes. Dead space, alveolar ventilation. Surface tension of the alveoli, surfactant, lung compliance. Concentrations of O<sub>2</sub> and CO<sub>2</sub> in the atmosphere and in alveolar air, partial pressures of gases. Exchange of respiratory gases. Transport of O<sub>2</sub> in blood, oxygen- haemoglobin association-dissociation curve. Transport of CO<sub>2</sub> in blood, haemoglobin - CO<sub>2</sub> association-dissociation curve. Function of the respiratory centre and control of breathing. Receptors participating in regulation of respiration. Specifics of respiration under water. Specifics of respiration in high altitudes.

Physiology of gastrointestinal system and the liver: Mastication, swallowing and the function of oesophagus. Motor functions of the stomach, vomiting. Motility in the small and large intestine, defaecation. Secretion, composition and functions of saliva. Secretion, composition and functions of the gastric juice, pancreatic juice and bile. Secretion in the small and large intestine. Regulation of the function of gastrointestinal system. Function of the liver and gallbladder. Gastrointestinal microbiota, gases in the digestive system, composition of faeces. Absorption in the gastrointestinal system and its mechanisms.

Metabolism and nutrition: Basal metabolic rate. The total daily energy expenditure and types of energy balance, energy value of nutrients. Metabolism in physical activity, oxygen debt and efficiency of the physical work. Methods of determination of the metabolic rate, energy equivalent, respiratory quotient.

Carbohydrates, fats and proteins – functions, classification, food sources, digestion, absorption, main metabolic pathways. Vitamins and minerals - characteristics, functions, food sources. Regulation of metabolism and main metabolic pathways in fed state and fasting state (starvation). Healthy nutrition guidelines and recommendations, current dietary pattern and its health risks. Vegetarian nutrition and other types of alternative nutrition, their positive and negative health effects. Regulation of the food intake.

#### Practicals

Blood physiology: Methods of blood collections in humans. Venous blood collection (simulator). Capillary blood collection. Determination of haematocrit value. The count of erythrocytes. Determination of haemoglobin content. Calculation of derived haematological values. Determination of erythrocyte osmotic resistance. Measurement of erythrocyte sedimentation rate. Haemolysis. Determination of blood groups: ABO system, Rh factor. Cross-matching test. Determination of bleeding time by Duke. Determination of activated partial thromboplastin time. Determination of prothrombin time by Quick.

Physiology of nerve and muscle: PC simulation of the neurophysiology of nerve impulses (software SimNerve). Determination of skeletal muscle strength in a human. Determination of work and fatigue in a human. PC simulation of the skeletal muscle physiology (software SimMuscle). Physiology of the smooth muscle.

Physiology of respiration: Hering's model of respiratory system. Parallelogram – a model of the function of intercostal muscles. Measurement of vital capacity. Functional lung examination – Spirometry. Auscultation of respiratory sounds in humans and using a simulator. Pulse oximetry. Measurement of peak expiratory flow with a peak flow meter. Analysis of the respiratory gases in exhaled air – theoretically. Calculation of minute lung ventilation and alveolar ventilation. Voluntary apnea. Influence of increasing CO<sub>2</sub> concentration and decreasing O<sub>2</sub> concentration.

Physiology of the digestive system and nutrition: Observation of the effect of salivary alpha-amylase. Transport of food through the oesophagus. Determination of glycaemia by glucometer. Calculation and evaluation of daily energy and nutrient intake. Basic anthropometric measurements.

Metabolism: Measurement of the basal metabolic rate. Measurement of metabolic rate during physical activity. Calculation of the daily energy expenditure using tables.

Clinical cases -topics: Blood physiology, nerve and muscle physiology, respiratory physiology, gastrointestinal physiology, metabolism and nutrition. Simulated clinical cases: Blood physiology, respiratory physiology.

Seminars: Introduction to blood physiology, physiology of the nerve and muscle, respiratory physiology, gastrointestinal physiology, nutrition and metabolism.

#### **Recommended literature:**

Ostatníková, D. a kol. Základy lekárskej fyziológie. Bratislava: Univerzita Komenského v Bratislave, 2022. 370 s. ISBN 978-80-223-5458-5.

Javorka, K. a kol. Lekárska fyziológia: učebnica pre lekárske fakulty. 5. preprac. a dopl. vyd. Martin: Osveta, 2021. 769 s. ISBN 978-80-8063-496-4.

Ostatníková, D. a kol. Fyziologické praktikum. Bratislava: Univerzita Komenského, 2021. 236 s. ISBN 978-80-223-5171-3.

Kittnar, O. a kol. Lékařská fyziologie. 2. prepracované a doplnené vydanie. Praha: Grada Publishing, 2020. 752 s. ISBN 978-80-2471-1963-4.

Silverthorn, D.U. Human Physiology: An Integrated Approach. 8th ed. University of Texas Austin: Pearson, 2018. Global Edition. 984 p. ISBN 978-1292259543.

Koeppen, B.M. and Stanton, B.A., eds. Berne & Levy Physiology. 8th ed. Philadelphia: Elsevier, 2024. 864 p. ISBN 978-0323847902.

#### **Languages necessary to complete the course:**

Slovak

#### **Notes:**

#### **Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Daniela Ostatníková, PhD., prof. MUDr. Boris Mravec, DrSc., prof. MUDr. Katarína Babinská, PhD., doc. RNDr. Monika Barteková, PhD., doc. MUDr. Mgr. Július Hodosy, PhD., prof. MUDr. Jana Radošinská, PhD., doc. RNDr. Ján Bakoš, PhD., MUDr. Mgr. Rudolf Drábek, MUDr. Silvia Hnilicová, PhD., MUDr. Petra Keményová, PhD., RNDr. Klaudia Kyselicová, PhD., doc. Dr. Aleksandra Sashova Tomova, PhD., MUDr. Rastislav Važan, PhD., MUDr. Mária Vidošovičová, MUDr. Tomáš Jasenovec, PhD., MUDr. Dominika Grochová, MUDr.



Ivan Szadvári, PhD., MUDr. Kristína Simon Klenovics, PhD., Mgr. Gabriela Repiská, PhD., RNDr. Jaroslava Babková, PhD., RNDr. Silvia Lakatošová, PhD.
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<b>Last change:</b> 20.01.2025
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<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH
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## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.FyÚ/L-S-VL-014/17	<b>Course title:</b> Physiology 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 60s / 60s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 10	
<b>Recommended semester:</b> 4.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.AÚ/L-S-VL-003/17 - Anatomy 3 and LF.FyÚ/L-S-VL-013/17 - Physiology 1 or LF.FyÚ/L-S-VL-013/25 - Physiology 1	
<b>Course requirements:</b> - 100% attendance at the practicals/seminars/TBL - to complete all written assignments and presentations - to pass 4 written tests always after completing a unit/organ system (for passing the tests, it is requested to obtain in each test at least 70 % of the maximum 40 points) Final examination: - complex written test: 10 questions (for passing the test, it is requested to obtain at least 70 % of the maximum 40 points) - oral part: 2 questions on medical physiology Evaluation: A: 95 - 100 %, B: 89 – 94 %, C: 83 – 88 %, D: 77 – 82 %, E: 70 – 76 %, Fx: 69 % or less The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: Knowledge of facts from the topics: physiology of blood, excitable tissues, respiration, digestive system, nutrition and metabolism. Understanding the physiological processes taking place in the organ systems, their interrelationships and regulations. Ability to apply physiological principles in the interpretation of clinical manifestations, as well as in the field of healthy lifestyle and disease prevention. Skills: Ability to perform selected analyses of blood, examinations of respiratory system, excitable tissues, metabolism, nutrition and to evaluate their results. Basic skills in clinical examinations and measurements (cross match test, determination of metabolic rate, evaluation of nutritional status, measurement of muscle strength, spirometry, oximetry, etc.) and understanding of their physiological principles. Ability to apply knowledge of physiology in solving simulated clinical problems and cases. Basic skills in understanding and interpreting graphic outputs from examination methods using instrumental technologies.	
<b>Class syllabus:</b> Lectures	

Cardiovascular physiology: Physiological properties of the cardiac muscle: automacy and rhythmicity, conductivity, excitability, contractility. The cardiac cycle and blood pressures in the cardiac atria and ventricles. Cardiac output and factors that determine it. Volumes – enddiastolic, systolic, endsystolic and ejection fraction of the heart. Preload, afterload and factors that influence them. Heart sounds and phonocardiography. Electrocardiogram recording, ECG curve and its evaluation. Frank-Starling autoregulation mechanism of the heart, metabolism of the cardiac muscle. Haemodynamics. Arterial and venous haemodynamics. Haemodynamics in capillaries and transcapillary exchange of water and substances. Blood pressure, factors that determine and influence the blood pressure. Blood pressure and its measurement. Arterial pulse and its measurement. Structure and functions of the lymphatic system and the spleen. Lymph. Nervous and humoral regulation of the cardiovascular system. Specifics of the coronary and the pulmonary circulation. Specifics of the cerebral, renal and hepatic circulation and the circulation in the skeletal muscle and the skin.

Body fluids, renal physiology and acid-base balance: Body fluids- classification, function, composition, daily water balance, osmosis. Glomerular filtration. Function of the proximal tubule, loop of Henle, distal tubule and collecting duct. Regulation of the volume and osmolality of urine. Function of the urinary tract, micturition, urine – volume and composition. Assessment of the renal functions. Regulation of the acid-base balance.

Physiology of special senses: Smell and taste. Somatovisceral sensory system. Pain – mechanisms, classification, phantom pain, referred pain, influencing the pain perception. Vision – optical system of the eye, accommodation, ametropias, function of the retina, colour vision, central and peripheral vision, binocular vision and three-dimensional visual perception, visual field and scotomas; visual pathway. Hearing. Sense of balance.

Physiology of the central nervous system: Function of glia, function of cerebrospinal fluid, blood-brain barrier, circumventricular organs. Development of the CNS. Neurotransmitters and neuromodulators. Function of the sensory division of the CNS. Reticular activation system, its function in maintaining attention and sleep introduction. Sleep. Electric activity of the brain, electroencephalogram, evoked potentials. Functions of motor division of the CNS, classification of muscle movements from the aspect of their regulation. Functions of the spinal cord, basal ganglia and cerebellum in regulation of the body posture and body movements. Reflex and voluntary regulation of the movements of the skeletal muscles. Function of the muscle spindle, alpha-gamma co-activation. Hierarchical organization of the CNS, association areas of the brain cortex and their functions. Speech – brain centres and speech disorders. Functional specialization of the cerebral hemispheres. Memory and its classification, brain structures associated with memory. Association and non-association learning. Emotions and their functions, function of the limbic system. Function of the autonomic nervous system.

Physiology of the endocrine system and reproduction: General principles of endocrine regulations, classification of hormones and mechanisms of their action. Endocrine function of hypothalamus and the hypothalamo-hypophyseal system. Function of adenohypophysis. Function of neurohypophysis and epiphysis. Function of the thyroid gland. Function of the parathyroid glands, endocrine regulation of calcium and phosphate metabolism. Endocrine function of the pancreas. Function of the adrenal cortex and the adrenal medulla. Function of the male and female reproductive organs. Fertilization, hormonal changes in pregnancy, function of placenta, birth and breastfeeding. Response of the human organism to stress. Neuro-immuno-endocrine interactions.

Thermoregulation: Heat balance in the body, mechanisms of heat production and heat loss, normal body temperature and its biorhythms, fever. Reaction of the body to heat and cold, nervous and humoral mechanisms of thermoregulation.

Practicals:

Physiology of special senses: Otoscopy - simulator and human. Audiometry. Ear tests with tuning forks. Examination of nystagmus in a human. Perimetry. Examination of central visual acuity. Ophthalmoscopy (simulator and human). Examination of the colour vision by using pseudoisochromatic charts. Stereoscopic vision. Additive mixing of colours. Detection of olfactory sensations. Detection of taste sensations. Accuracy of tactile localization. Adaptation of skin mechanoreceptors. Examination of cutaneous sensitivity (tactile) – esthesiometry, Weber experiment.

Physiology of the central nervous system: Examination of reflexes in humans. Examination of the cerebellum. Reaction of pupils to a light and accommodation stimulus. Reaction time, Stroop test. Assessment of motor handedness. Testing of the short-term memory. Specific cognitive functions - testing of spatial abilities. Test of cognitive functions.

Physiology of the cardiovascular system: Electrocardiography (ECG). Auscultation of the heart sounds (simulator and humans). Examination of the arterial pulse. Measurement of the arterial blood pressure in humans. Reactive hyperaemia. Rumpel-Leede test. Ruffier test - effect of exercise on the heart rate. Orthostatic test. The effect of standard physical activity on the blood pressure.

Renal physiology: Examination of urine by diagnostic strips. Tests of renal functions.

The endocrine system: PC program - Endo Lab / PhysioEx

Clinical cases - topics: sensory physiology, physiology of the central nervous system, endocrine system and cardiovascular system, renal physiology. Simulated clinical cases: physiology of the cardiovascular system, hypovolemic shock.

Seminars: Introduction to the cardiovascular, renal, sensory and endocrine physiology, physiology of the central nervous system.

#### **Recommended literature:**

Ostatníková, D. a kol. Základy lékařské fyziologie. Bratislava: Univerzita Komenského v Bratislave, 2022. 370 s. ISBN 978-80-223-5458-5.

Javorka, K. a kol. Lékařská fyziologie: učebnice pro lékařské fakulty. 5. preprac. a dopl. vyd. Martin: Osveta, 2021. 769 s. ISBN 978-80-8063-496-4.

Ostatníková, D. a kol. Fyziologické praktikum. Bratislava: Univerzita Komenského, 2021. 236 s. ISBN 978-80-223-5171-3.

Kittnar, O. a kol. Lékařská fyziologie. 2. prepracované a doplnené vydanie. Praha: Grada Publishing, 2020. 752 s. ISBN 978-80-2471-1963-4.

Silverthorn, D.U. Human Physiology: An Integrated Approach. 8th ed. University of Texas Austin: Pearson, 2018. Global Edition. 984 p. ISBN 978-1292259543.

Koeppen, B.M. and Stanton, B.A., eds. Berne & Levy Physiology. 8th ed. Philadelphia: Elsevier, 2024. 864 p. ISBN 978-0323847902.

#### **Languages necessary to complete the course:**

Slovak

#### **Notes:**

#### **Past grade distribution**

Total number of evaluated students: 2685

A	B	C	D	E	FX
24,02	19,37	23,61	14,08	9,72	9,2

**Lecturers:** prof. MUDr. Daniela Ostatníková, PhD., prof. MUDr. Boris Mravec, DrSc., prof. MUDr. Katarína Babinská, PhD., doc. RNDr. Monika Barteková, PhD., prof. MUDr. Jana Radošinská, PhD., doc. RNDr. Ján Bakoš, PhD., MUDr. Mgr. Rudolf Drábek, MUDr. Silvia Hnilicová, PhD., MUDr. Petra Keményová, PhD., RNDr. Klaudia Kyselíková, PhD., doc. Dr.

Aleksandra Sashova Tomova, PhD., MUDr. Rastislav Važan, PhD., MUDr. Mária Vidošovičová, doc. MUDr. Mgr. Július Hodosy, PhD., MUDr. Ivan Szadvári, PhD., MUDr. Kristína Simon Klenovics, PhD., RNDr. Jaroslava Babková, PhD., RNDr. Silvia Lakatošová, PhD., Mgr. Gabriela Repiská, PhD., doc. MUDr. Richard Imrich, DrSc.

**Last change:** 30.05.2024

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚH/L-S-VL-150-4/19	<b>Course title:</b> Primary Prevention in Health Care for Children and Adolescents
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2 and LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> - 1 written test (minimum 60% of correct answers) Final exam: - theoretical exam: 2 questions (physical and psychic development of children and youth, educational process and primary prevention) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 60%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: - on the health protection and promotion of children and youth - on the endogenous and exogenous effects on physical and mental development of children and youth - on the principles of primary prevention and assessment of primary prevention measures in child and adolescent care - on legislation in this field Skills: - assessment of the physical and mental development of children and youth - evaluation of the nutritional status of children and youth - assessment of the quality of the indoor and outdoor environment in collective facilities for children and youth - assessment of primary prevention measures in the care for children and youth - the ability to use the results obtained for the practice of a general practitioner, pediatrician	
<b>Class syllabus:</b> Protecting and promoting the health of children and youth. Development of children and youth, and primary prevention. Main areas of primary preventive care in different developmental stages.	

Hygienic requirements on children's, preschool and school educational and collective facilities. Health protection and promotion of children and youth in educational process. Principles of childcare for toddlers and children in pre-school age. Hygiene of educational process. Regimen of work and rest in schoolchildren. Hygienic aspects of practical training and health protection of young people at work. Indicators of the health status of children and youth. Nutrition of children and youth. Prevention of use of legal and non-legal addictive substances among children and youth. Environmental and lifestyle factors in relation to the health of children and youth. Assessment and problem solving of health risks in the children's and youth's environment and the way of their life. Intervention programs. State health supervision, the development of healthy living conditions and the health of children and youth.

**Recommended literature:**

Jurkovičová, J. a kol. Hygiena. Bratislava, UK, 2020. 481 s. ISBN 978-80-223-4905-5.

Jurkovičová, J. a kol.: Praktické cvičenia z hygieny. Bratislava: UK, 2010. 331 s. Skriptá. ISBN 978-80-223-2816-6.

Ševčíková Ľ. and contributors: Hygiene - Environmental Medicine. Bratislava: Comenius University, 2011. 322 s. ISBN 978-80-223-2900-2.

Ševčíková Ľ. and contributors: Environmental Health – Hygiene. Bratislava : Comenius University, 2015. 253 s. ISBN 978-80-223-3930-8

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 75

A	B	C	D	E	FX
21,33	50,67	18,67	6,67	2,67	0,0

**Lecturers:** prof. MUDr. Ľubica Argalášová, PhD., prof. MUDr. Jana Jurkovičová, CSc.

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚH/L-S-VL-150-5/19	<b>Course title:</b> Primary Prevention in Health Care for Children and Adolescents
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 1 written test (minimum 60% of correct answers) Final exam: - theoretical exam: 2 questions (physical and psychic development of children and youth, educational process and primary prevention) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 60%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: - on the health protection and promotion of children and youth - on the endogenous and exogenous effects on physical and mental development of children and youth - on the principles of primary prevention and assessment of primary prevention measures in child and adolescent care - on legislation in this field Skills: - assessment of the physical and mental development of children and youth - evaluation of the nutritional status of children and youth - assessment of the quality of the indoor and outdoor environment in collective facilities for children and youth - assessment of primary prevention measures in the care for children and youth - the ability to use the results obtained for the practice of a general practitioner, pediatrician	
<b>Class syllabus:</b> Protecting and promoting the health of children and youth. Development of children and youth, and primary prevention. Main areas of primary preventive care in different developmental stages. Hygienic requirements on children's, preschool and school educational and collective facilities.	



Health protection and promotion of children and youth in educational process. Principles of childcare for toddlers and children in pre-school age. Hygiene of educational process. Regimen of work and rest in schoolchildren. Hygienic aspects of practical training and health protection of young people at work. Indicators of the health status of children and youth. Nutrition of children and youth. Prevention of use of legal and non-legal addictive substances among children and youth. Environmental and lifestyle factors in relation to the health of children and youth. Assessment and problem solving of health risks in the children's and youth's environment and the way of their life. Intervention programs. State health supervision, the development of healthy living conditions and the health of children and youth.

**Recommended literature:**

Jurkovičová, J. a kol. Hygiena. Bratislava, UK, 2020. 481 s. ISBN 978-80-223-4905-5.

Jurkovičová, J. a kol.: Praktické cvičenia z hygieny. Bratislava: UK, 2010. 331 s. Skriptá. ISBN 978-80-223-2816-6.

Ševčíková Ľ. and contributors: Hygiene - Environmental Medicine. Bratislava: Comenius University, 2011. 322 s. ISBN 978-80-223-2900-2.

Ševčíková Ľ. and contributors: Environmental Health – Hygiene. Bratislava : Comenius University, 2015. 253 s. ISBN 978-80-223-3930-8

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 42

A	B	C	D	E	FX
35,71	38,1	11,9	9,52	4,76	0,0

**Lecturers:** prof. MUDr. Ľubica Argalášová, PhD., prof. MUDr. Jana Jurkovičová, CSc.

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLFB/L-S-VL-151-4/22	<b>Course title:</b> Principles of E-Health
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Continuously: - Active participation in lectures Final exam: - Semestral project submission Test rating: A: 91 % – 100 %, B: 81 % – 90 %, C: 73 % – 80 %, D: 66 % – 72 %, E: 60 % – 65 %, Fx: 59 % and less.	
<b>Learning outcomes:</b> Knowledge: after successful complete of the course student should understand the concept of e-health, basic terms, principles, content, the tendency to build one medical system , the courses in e-health in medicine Skills: to manage the simple telemedicine devices, to understand their functions, connection with others devices	
<b>Class syllabus:</b> Definition of e-health, e-prescription, e-medical systems, artificial intelligence, in medicine, aspects of law, medical databases, nanomedicine, virtual reality in medicine and its application, pros and cons of e-health in medicine	
<b>Recommended literature:</b> 1.A. Venot, A. Burgun, C. Quantin. Medical Informatics, e-Health, Fundamentals and Applications. Springer-Verlag France 2014, Springer, Paris, 978-2-8178-0477-4 2. internetové zdroje	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>					
Total number of evaluated students: 19					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. RNDr. Martin Kopáni, PhD., doc. RNDr. Pavol Vítovič, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚLFB/L-S-VL-151-5/22	<b>Course title:</b> Principles of E-Health
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Continuously: - Active participation in lectures Final exam: - Semestral project submission Test rating: A: 91 % – 100 %, B: 81 % – 90 %, C: 73 % – 80 %, D: 66 % – 72 %, E: 60 % – 65 %, Fx: 59 % and less.	
<b>Learning outcomes:</b> Knowledge: after successful complete of the course student should understand the concept of e-health, basic terms, principles, content, the tendency to build one medical system , the courses in e-health in medicine Skills: to manage the simple telemedicine devices, to understand their functions, connection with others devices	
<b>Class syllabus:</b> Definition of e-health, e-prescription, e-medical systems, artificial intelligence, in medicine, aspects of law, medical databases, nanomedicine, virtual reality in medicine and its application, pros and cons of e-health in medicine	
<b>Recommended literature:</b> 1.A. Venot, A. Burgun, C. Quantin. Medical Informatics, e-Health, Fundamentals and Applications. Springer-Verlag France 2014, Springer, Paris, 978-2-8178-0477-4 2. internetové zdroje	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>					
Total number of evaluated students: 22					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. RNDr. Martin Kopáni, PhD., doc. RNDr. Pavol Vítovič, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚMVS/L-S-VL-173-4/22	<b>Course title:</b> Principles of Medical Education 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% active participation in lectures Final exam: - Practical part - writing an essay on a given topic - theoretical part - oral exam Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> Knowledge: After completing the subject, the student acquires knowledge about the specifics of adult education with a focus on Medical Education in an active way of learning during the lessons. Students will learn deeper using critical thinking, and clinical reasoning using clinical cases and learn with use of reflection and personal feedback. Students will be familiar with basic principles of using Simulations in medical Education, especially High-Fidelity simulators, standardized patients and use of e-learning and virtual patients. They will be familiar with current forms of Medical Education, as well as with new methods in MedEd, active learning (eg Team-based learning, problem-based learning, peer-to-peer, near-peer learning) and their effective use during the classes. Students gain knowledge about the specifics of the bedside teaching, structured consultation models, and communication skills needed. They are also will be familiar with basics of Medical Education Research. <b>Skills:</b> The student will acquire the skills in a hands-on way to use effective strategies needed to educate students at medical faculties as an educator in preclinical as well as clinical education after graduation and prepare for the role of a physician-educator for the students as well for future patients. They will participate in a project focused on Medical Education Research.	
<b>Class syllabus:</b>	

1. Adult learning, role of motivation in teaching and learning, integration of medical disciplines in clinical case teaching
2. New methods of teaching and learning (hands-on)
3. Clinical reasoning in Medical Education, the role of reflection and feedback in learning. 4. Simulation teaching – High-fidelity simulators in teaching
5. Active forms of education in medicine (active lectures, group-based learning, team-based learning, project-based learning, problem-based learning, case-based learning)
6. Bedside teaching, structured consultation models, and communication skills
7. Peer-to-peer, near-peer teaching, teaching in groups
8. Assessment in medical education, standardized patients, OSCEs (Objective Structured Clinical Exam)
9. Research in Medical Education, Inovative Curriculum development, Integrated curriculum
10. Project in Medical Education

**Recommended literature:**

Hanáček, Mokry: Trendy v medicínskom vzdelávaní a hodnotenie jeho výsledkov, Osveta, 2018, 255 s.

Dent JA, Harden RM. A Practical Guide for Medical Teachers. 6th ed. Churchill Livingstone Elsevier, 2021. 496 s.

Harden RM, Laidlaw JM. Essential Skills for a medical teacher. An introduction to teaching and learning medicine. Churchill Livingstone Elsevier. 2020. 334 s.

AMEE and BEME Educational Guides

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 28

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** MUDr. Silvia Hnilicová, PhD.

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚMVS/L-S-VL-173-5/22	<b>Course title:</b> Principles of Medical Education 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% active participation in lectures Final exam: - Practical part - writing an essay on a given topic - theoretical part - oral exam Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: Knowledge: After completing the subject, the student acquires knowledge about the specifics of adult education with a focus on Medical Education in an active way of learning during the lessons. Students will learn deeper using critical thinking, and clinical reasoning using clinical cases and learn with use of reflection and personal feedback. Students will be familiar with basic principles of using Simulations in medical Education, especially High-Fidelity simulators, standardized patients and use of e-learning and virtual patients. They will be familiar with current forms of Medical Education, as well as with new methods in MedEd, active learning (eg Team-based learning, problem-based learning, peer-to-peer, near-peer learning) and their effective use during the classes. Students gain knowledge about the specifics of the bedside teaching, structured consultation models, and communication skills needed. They are also will be familiar with basics of Medical Education Research. Skills: The student will acquire the skills in a hands-on way to use effective strategies needed to educate students at medical faculties as an educator in preclinical as well as clinical education after graduation and prepare for the role of a physician-educator for the students as well for future patients. They will participate in a project focused on Medical Education Research.	
<b>Class syllabus:</b>	



1. Adult learning, role of motivation in teaching and learning, integration of medical disciplines in clinical case teaching
2. New methods of teaching and learning (hands-on)
3. Clinical reasoning in Medical Education, the role of reflection and feedback in learning.
4. Simulation teaching – High-fidelity simulators in teaching
5. Active forms of education in medicine (active lectures, group-based learning, team-based learning, project-based learning, problem-based learning, case-based learning)
6. Bedside teaching, structured consultation models, and communication skills
7. Peer-to-peer, near-peer teaching, teaching in groups
8. Assessment in medical education, standardized patients, OSCEs (Objective Structured Clinical Exam)
9. Research in Medical Education, Inovative Curriculum development, Integrated curriculum
10. Project in Medical Education

**Recommended literature:**

Hanáček, Mokřý: Trendy v medicínském vzdelávání a hodnotenie jeho výsledkov, Osveta, 2018, 255 s.

Dent JA, Harden RM. A Practical Guide for Medical Teachers. 6th ed. Churchill Livingstone Elsevier, 2021. 496 s.

Harden RM, Laidlaw JM. Essential Skills for a medical teacher. An introduction to teaching and learning medicine. Churchill Livingstone Elsevier. 2020. 334 s.

AMEE and BEME Educational Guides

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 4

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** MUDr. Silvia Hnilicová, PhD.

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚMVS/L-S-VL-174-4/22	<b>Course title:</b> Principles of Medical Education 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% active participation in lectures Final exam: - Practical part - writing an essay on a given topic - theoretical part - oral exam Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge, skills, attitudes: Clinical reasoning concepts Demonstrate an understanding of Clinical reasoning theories (e.g. script, dual process), How clinical reasoning ability develops, The role of clinical reasoning in safe and effective care for patients, Cognitive errors, Other factors that may impair the clinical reasoning process/outcome History and physical examination Demonstrate the ability to use: Effective communication skills and purposeful interviewing, History taking from all available sources when relevant, Hypothesis-driven enquiry, Knowledge of epidemiology, probability of the presence of signs and symptoms in specific diseases, and likelihood ratios to estimate clinical probability Choosing and interpreting diagnostic tests Demonstrate a practical understanding of and ability to use the following: Pre-test (clinical) probability and post-test probability. Sensitivity and specificity, Predictive values, Factors other than disease that influence test results, Important characteristics of commonly used tests relevant to local context, Evidence-based guidelines Problem identification and management Demonstrate an ability to produce: An accurate problem representation or problem list, Use of semantic qualifiers and precise medical terms, Prioritised differential diagnosis, including relevant ‘must not miss’ diagnoses, Safe actions when a diagnosis is not possible, Management plans taking patient’s preferences, co-morbidities, resources, cost-	

effectiveness and local policies in to account, Metacognition and critical thinking in decision making

Shared decision making Demonstrate the ability to make decisions with: Patients and carers, Clinical teams, Guidelines, scores and decision aids, Evidence-based medicine applied to the patient's circumstances, Professional values and behaviours that support decision making

Medical Ethical Reasoning: Ethical knowledge is composed of knowledge of ethical principles, ethical theory, professional codes and legal regulations. Cognitive reasoning skill is composed of problem identification and information gathering, decision making, planning and action. The domain of attitudes refers to the values or beliefs governing the justification. The justification is related to logic-based decision which can be concluded by considering the different perspectives of all the parties involved, minimizing potential conflicts among stakeholders and between competing principles and evaluating consequences.

### **Class syllabus:**

Clinical reasoning concepts, Clinical reasoning theories (e.g. script, dual process), The role of clinical reasoning in safe and effective care for patients, Cognitive errors, Other factors that may impair the clinical reasoning process/outcome

Specifics of History taking and physical examination: Effective communication skills and purposeful interviewing, History taking from all available sources, Hypothesis-driven enquiry, Knowledge of epidemiology, probability of the presence of signs and symptoms in specific diseases, and likelihood ratios to estimate clinical probability

Specifics of choosing and interpreting diagnostic tests: Pre-test (clinical) probability and post-test probability. Sensitivity and specificity, Predictive values, Factors other than disease that influence test results, Important characteristics of commonly used tests relevant to local context, Evidence-based guidelines

Problem identification and management: An accurate problem representation or problem list, Use of semantic qualifiers and precise medical terms, Prioritized differential diagnosis, including relevant 'must not miss' diagnoses, Safe actions when a diagnosis is not possible, Management plans taking patient's preferences, co-morbidities, resources, cost-effectiveness and local policies, Metacognition and critical thinking in decision making

Shared decision making with patients and caregivers, Clinical teams, Guidelines, scores and decision aids, Evidence-based medicine applied to the patient's circumstances, Professional values and behaviors that support decision making, Strategies that build understanding, strategies that employ structured , clinical cases and corrective feedback, strategies that structure knowledge around problem-specific concepts, strategies that employ retrieval, strategies that differ according to stage of learning

Medical Ethical Reasoning: Ethical knowledge is composed of knowledge of ethical principles, ethical theory, professional codes and legal regulations. Cognitive reasoning skill is composed of problem identification and information gathering, decision making, planning and action. The domain of attitudes refers to the values or beliefs governing the justification. The justification is related to logic-based decision which can be concluded by considering the different perspectives of all the parties involved, minimizing potential conflicts among stakeholders and between competing principles and evaluating consequences.

Clinical Ethical Reasoning and its contribution to medical education: Ethical knowledge is composed of knowledge of ethical principles, ethical theory, professional codes and legal regulations. Cognitive reasoning skill is composed of problem identification and information gathering, decision making, planning and action. The domain of attitudes refers to the values or beliefs governing the justification.

### **Recommended literature:**

Hanáček, Mokřý: Trendy v medicínském vzdelávání a hodnotenie jeho výsledkov, Osveta, 2018, 255 s.  
 Kassirer, Wong, Kopelman: Learning clinical reasoning, 2010, ISBN 9780781795159  
 Irfan: The Hands-on Guide to Clinical Reasoning in Medicine, 2019, ISBN 9781119244035  
 Frain, Cooper: ABC of Clinical Reasoning, 2016, ISBN 9781119059080  
 Jonsen, A.R., Siegler, M., Winslade, W.J. Klinická etika. Praktický přístup k etickým rozhodnutím v klinické medicíně. 1. vyd. Praha: Stanislav Juhaňák - Triton 2019. 232 s.

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 18

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** MUDr. Silvia Hnilicová, PhD.

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚMVS/L-S-VL-174-5/22	<b>Course title:</b> Principles of Medical Education 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% active participation in lectures Final exam: - Practical part - writing an essay on a given topic - theoretical part - oral exam Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge, skills, attitudes: Clinical reasoning concepts Demonstrate an understanding of Clinical reasoning theories (e.g. script, dual process), How clinical reasoning ability develops, The role of clinical reasoning in safe and effective care for patients, Cognitive errors, Other factors that may impair the clinical reasoning process/outcome History and physical examination Demonstrate the ability to use: Effective communication skills and purposeful interviewing, History taking from all available sources when relevant, Hypothesis-driven enquiry, Knowledge of epidemiology, probability of the presence of signs and symptoms in specific diseases, and likelihood ratios to estimate clinical probability Choosing and interpreting diagnostic tests Demonstrate a practical understanding of and ability to use the following: Pre-test (clinical) probability and post-test probability. Sensitivity and specificity, Predictive values, Factors other than disease that influence test results, Important characteristics of commonly used tests relevant to local context, Evidence-based guidelines Problem identification and management Demonstrate an ability to produce: An accurate problem representation or problem list, Use of semantic qualifiers and precise medical terms, Prioritised differential diagnosis, including relevant ‘must not miss’ diagnoses, Safe actions when a diagnosis is not possible, Management plans taking patient’s preferences, co-morbidities, resources, cost-	

effectiveness and local policies in to account, Metacognition and critical thinking in decision making

Shared decision making Demonstrate the ability to make decisions with: Patients and carers, Clinical teams, Guidelines, scores and decision aids, Evidence-based medicine applied to the patient's circumstances, Professional values and behaviours that support decision making

Medical Ethical Reasoning: Ethical knowledge is composed of knowledge of ethical principles, ethical theory, professional codes and legal regulations. Cognitive reasoning skill is composed of problem identification and information gathering, decision making, planning and action. The domain of attitudes refers to the values or beliefs governing the justification. The justification is related to logic-based decision which can be concluded by considering the different perspectives of all the parties involved, minimizing potential conflicts among stakeholders and between competing principles and evaluating consequences.

### **Class syllabus:**

Clinical reasoning concepts, Clinical reasoning theories (e.g. script, dual process), The role of clinical reasoning in safe and effective care for patients, Cognitive errors, Other factors that may impair the clinical reasoning process/outcome

Specifics of History taking and physical examination: Effective communication skills and purposeful interviewing, History taking from all available sources, Hypothesis-driven enquiry, Knowledge of epidemiology, probability of the presence of signs and symptoms in specific diseases, and likelihood ratios to estimate clinical probability

Specifics of choosing and interpreting diagnostic tests: Pre-test (clinical) probability and post-test probability. Sensitivity and specificity, Predictive values, Factors other than disease that influence test results, Important characteristics of commonly used tests relevant to local context, Evidence-based guidelines

Problem identification and management: An accurate problem representation or problem list, Use of semantic qualifiers and precise medical terms, Prioritized differential diagnosis, including relevant 'must not miss' diagnoses, Safe actions when a diagnosis is not possible, Management plans taking patient's preferences, co-morbidities, resources, cost-effectiveness and local policies, Metacognition and critical thinking in decision making

Shared decision making with patients and caregivers, Clinical teams, Guidelines, scores and decision aids, Evidence-based medicine applied to the patient's circumstances, Professional values and behaviors that support decision making, Strategies that build understanding, strategies that employ structured , clinical cases and corrective feedback, strategies that structure knowledge around problem-specific concepts, strategies that employ retrieval, strategies that differ according to stage of learning

Medical Ethical Reasoning: Ethical knowledge is composed of knowledge of ethical principles, ethical theory, professional codes and legal regulations. Cognitive reasoning skill is composed of problem identification and information gathering, decision making, planning and action. The domain of attitudes refers to the values or beliefs governing the justification. The justification is related to logic-based decision which can be concluded by considering the different perspectives of all the parties involved, minimizing potential conflicts among stakeholders and between competing principles and evaluating consequences.

Clinical Ethical Reasoning and its contribution to medical education: Ethical knowledge is composed of knowledge of ethical principles, ethical theory, professional codes and legal regulations. Cognitive reasoning skill is composed of problem identification and information gathering, decision making, planning and action. The domain of attitudes refers to the values or beliefs governing the justification.

### **Recommended literature:**

Hanáček, Mokřý: Trendy v medicínském vzdelávání a hodnotenie jeho výsledkov, Osveta, 2018, 255 s.  
 Kassirer, Wong, Kopelman: Learning clinical reasoning, 2010, ISBN 9780781795159  
 Irfan: The Hands-on Guide to Clinical Reasoning in Medicine, 2019, ISBN 9781119244035  
 Frain, Cooper: ABC of Clinical Reasoning, 2016, ISBN 9781119059080  
 Jonsen, A.R., Siegler, M., Winslade, W.J. Klinická etika. Praktický přístup k etickým rozhodnutím v klinické medicíně. 1. vyd. Praha: Stanislav Juhaňák - Triton 2019. 232 s.

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 4

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** MUDr. Silvia Hnilicová, PhD.

**Last change:** 16.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.PK/L-S-VL-062/25	<b>Course title:</b> Psychiatry 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100 % practicals completion Written test (60 % at least). Written test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less	
<b>Learning outcomes:</b> <b>Knowledge:</b> <ul style="list-style-type: none"> <li>- Understanding the etiology, pathogenesis, epidemiology, clinical manifestations of mental disorders.</li> <li>- Learning the investigational procedures, principles of biological and non-biological treatment and psychosocial rehabilitation in psychiatry</li> <li>- Understanding the legal status and assessment of persons with mental disorders in childhood and adulthood.</li> <li>- Understanding the causes, clinical, diagnostic and therapeutic procedures of emergency conditions in psychiatry.</li> <li>- Understanding the psychopathological symptoms and syndromes.</li> </ul> <b>Skills:</b> <ul style="list-style-type: none"> <li>- Mastering the general principles of communication with patients suffering mental disorder in childhood and adulthood.</li> <li>- Ability to identify psychopathological symptoms within clinical psychiatric examination of persons with psychiatric disorders in childhood and adulthood.</li> <li>- Ability to investigate the psychological functions (clinically, screening scales) specifically.</li> <li>- Identification of relevant data from medical history and assessing their potential relationship to psychopathological symptoms, using the diagnostic workup procedures.</li> </ul>	
<b>Class syllabus:</b> Causes, mechanisms and epidemiology of mental disorders. Psychopathology, classification, diagnostics, differential diagnosis, treatment, rehabilitation, assessment of psychiatric disorders in children and adults. First aid in psychiatry. Practicing of clinical examination, identification of symptoms, diagnostic conclusion and differential diagnosis, preparation of draft plan of further	



investigations and treatment of mental disorders. Training the use of screening and assessment scales.						
<b>Recommended literature:</b> Kolibáš, E. a kol.: Všeobecná psychiatria. Bratislava: Univerzita Komenského, 2011, 184 s. ISBN 9788022329859 Novotný, V. a kol.: Špeciálna psychiatria. Bratislava: Univerzita Komenského, 2010, 248 s. ISBN 9788022326247 Kolibáš, E.: Príručka klinickej psychiatrie. Nové Zámky: Psychoprof, 2010, 304 s. ISBN 9788089322053 Pečeňák, J., Kořínková, V. et al.: Psychofarmakológia. Bratislava: Wolters Kluwer, 2016, 672 s. ISBN 9788081685422						
<b>Languages necessary to complete the course:</b> slovak						
<b>Notes:</b>						
<b>Past grade distribution</b> Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. MUDr. Ľubomíra Izáková, PhD., doc. MUDr. Jana Trebatická, PhD., prof. MUDr. Ján Pečeňák, CSc., doc. MUDr. Tatiana Čaplová, CSc., MUDr. Dana Krajčovičová, PhD.						
<b>Last change:</b> 29.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.PK/L-S-VL-063/19	<b>Course title:</b> Psychiatry 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.PK/L-S-VL-062/19 - Psychiatry 1 or LF.PK/L-S-VL-062/25 - Psychiatry 1	
<b>Course requirements:</b> 100 % participation at practical trainings <b>Exam:</b> 1) Written test (minimally for 60 %). Evaluation of the test: A: 91 – 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less 2) Oral exam: 2 questions (1 from general and 1 from special psychiatry). Overall evaluation will be assigned according to the average of obtained partial evaluations.	
<b>Learning outcomes:</b> <b>Knowledge:</b> - Understanding the classification of mental disorders according to ICD-10 and ICD-11. - Learning the etiology, pathogenesis, epidemiology, clinical presentations, diagnostics, differential diagnostics, treatment, rehabilitation and appraisal of the main groups of mental disorders in children and adults. <b>Skills:</b> - To handle clinical psychiatric examination of persons with mental disorder, to elaborate the data from documentation, to work-out the psychiatric findings. - To demonstrate the ability for examination of cognitive functions in adults by means of standardized assessment scale. - To propose correct therapeutic procedures from psychopharmacology, biological and non-biological therapeutic methods.	
<b>Class syllabus:</b> The causes and the mechanisms of creation and epidemiology of individual mental disorders. Diagnostic criteria and differential diagnostics. Treatment, rehabilitation and appraisal of mental disorders in childhood, adolescence and adulthood. Clinical examination, identification of signs and symptoms, differentially diagnostic elaboration and diagnostic conclusions. Formation of examination plan and proposal for treatment in selected groups of mental disorders in childhood and adulthood.	
<b>Recommended literature:</b>	

<p>Kolibáš, E. a kol.: Všeobecná psychiatria. Bratislava: Univerzita Komenského, 2011, 184 s. ISBN 9788022329859</p> <p>Novotný, V. a kol.: Špeciálna psychiatria. Bratislava: Univerzita Komenského, 2010, 248 s. ISBN 9788022326247</p> <p>Kolibáš, E.: Príručka klinickej psychiatrie. Nové Zámky: Psychoprof, 2010, 304 s. ISBN 9788089322053</p> <p>Pečeňák, J., Kořínková, V. et al.: Psychofarmakológia. Bratislava: Wolters Kluwer, 2016, 672 s. ISBN 9788081685422</p> <p>Kráľová, M.: Demencie. Bratislava: Univerzita Komenského, 2017, 88 s. ISBN 9788022343077</p> <p>Pečeňák, J.: Klasifikácia v psychiatrii. Bratislava: Univerzita Komenského, 2014, 61 s. ISBN 9788022336628</p> <p>Pečeňák, J.: Schizofrénia: Koncepty, symptómy, diagnostické kritériá. Bratislava: Univerzita Komenského, 2014, 72 s. ISBN 9788022335409</p> <p>Trebatická, J.: Depresívna porucha v detskom a adolescentnom veku. Bratislava: Univerzita Komenského, 2017, 70 s. ISBN 9788022344289</p>																	
<p><b>Languages necessary to complete the course:</b> slovak</p>																	
<p><b>Notes:</b></p>																	
<p><b>Past grade distribution</b> Total number of evaluated students: 1491</p> <table> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>FX</th></tr> <tr> <td>33,07</td><td>38,23</td><td>16,57</td><td>7,18</td><td>4,36</td><td>0,6</td></tr> </table>						A	B	C	D	E	FX	33,07	38,23	16,57	7,18	4,36	0,6
A	B	C	D	E	FX												
33,07	38,23	16,57	7,18	4,36	0,6												
<p><b>Lecturers:</b> doc. MUDr. Ľubomíra Izáková, PhD., doc. MUDr. Jana Trebatická, PhD., prof. MUDr. Ján Pečeňák, CSc., doc. MUDr. Mária Kráľová, CSc., MUDr. Zuzana Matzová, PhD., MUDr. Dana Krajčovičová, PhD., MUDr. Michal Turček, PhD., MUDr. Viktor Segeda, PhD., PhDr. Zuzana Hradečná</p>																	
<p><b>Last change:</b> 02.12.2022</p>																	
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>																	

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.PK/L-S-VLa-183/25	<b>Course title:</b> Psychiatry Without Borders: A Global Journey
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Form of educational activities: online	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.PK/L-S-VLa-062/25 - Psychiatry 1	
<b>Course requirements:</b> 80% attendance at lectures Grading will be based on a final essay project of one course topic A-E: Essays will be graded Fx: Essay insufficient or insufficient attendance to the course	
<b>Learning outcomes:</b> Knowledge: <ul style="list-style-type: none"> <li>• Understand how cultural, social, and economic factors influence the presentation, diagnosis, and treatment of mental health disorders in different countries.</li> <li>• Compare and contrast mental health care systems across high-income and low-resource settings, including access to care, available treatments, and workforce challenges.</li> <li>• Recognize the global burden of mental health disorders and the role of international organizations (e.g., WHO, NGOs) in addressing mental health disparities.</li> <li>• Explore innovative approaches to mental health care delivery, such as task-shifting, community-based interventions, telepsychiatry, AI.</li> </ul> Skills: <ul style="list-style-type: none"> <li>• Conduct culturally sensitive psychiatric assessments using practical tools like the DSM-5 Cultural Formulation Interview (CFI) to adapt to diverse patient populations.</li> <li>• Develop evidence-based treatment plans tailored to the resources and constraints of different health care systems.</li> <li>• Navigate clinical challenges in global psychiatry, such as diagnosing and treating mental health disorders in low-resource settings or with limited diagnostic tools.</li> <li>• Use telepsychiatry and digital mental health tools to deliver care across borders and in underserved areas.</li> <li>• Collaborate with multidisciplinary teams to design and implement mental health interventions in diverse cultural and clinical settings.</li> </ul>	

- Advocate for mental health equity by understanding the role of policy, advocacy, and community engagement in improving access to care worldwide.

### **Class syllabus:**

The course explores how mental health care is delivered across different healthcare systems worldwide. The module examines psychiatric diagnosis, treatment approaches, and cultural influences on mental health, comparing high-, middle-, and low-income country models. Students will engage with key topics such as cross-cultural psychiatry, trauma and refugee mental health, addiction, forensic psychiatry, and innovations in psychiatric care. Through real-world case studies, discussions, and practical workshops, students will develop cultural competence and gain the skills to work in diverse psychiatric settings. While maintaining a global outlook, the module also considers the UK's role in international mental health policy, research, and humanitarian efforts.

### **Recommended literature:**

#### **1. General Global Psychiatry & Mental Health Systems**

- **Global Mental Health: Principles and Practice** – Vikram Patel, Harry Minas, Alex Cohen, Martin Prince

A comprehensive overview of global mental health systems, challenges, and interventions.

- **Where There Is No Psychiatrist: A Mental Health Care Manual** – Vikram Patel

A practical guide on mental health care in low-resource settings, widely used by NGOs and field workers.

- **The Lancet Commission on Global Mental Health and Sustainable Development** – Patel et al. (2018) (Journal Article)

An essential paper that discusses the future of global mental health and policy directions.

#### **2. Cross-Cultural Psychiatry & Diagnosis Across Borders**

- **Cultural Formulation Interview (DSM-5)** – American Psychiatric Association (Chapter in DSM-5)

A framework for assessing psychiatric conditions across different cultures, useful for clinical application.

- **Textbook of Cultural Psychiatry** – Dinesh Bhugra & Kamaldeep Bhui

Explores how psychiatric disorders are understood and treated in different cultures.

- **Crazy Like Us: The Globalization of the American Psyche** – Ethan Watters

A fascinating read on how Western concepts of mental illness are shaping global mental health care.

#### **3. Refugee & Trauma Psychiatry**

- **The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma** – Bessel van der Kolk

A must-read on trauma, PTSD, and how different cultures approach healing.

- **Mental Health and Human Rights in Post-Conflict Societies** – Dinesh Bhugra, Sam Everington
- Discusses psychiatric care for refugees, conflict survivors, and displaced populations.

#### **4. Addiction & Global Perspectives on Substance Use**

- **Substance Use and Addiction Medicine: Global Issues and Challenges** – Paul Haber, Nicola Newton

Covers international perspectives on addiction treatment and policy.

- **Harm Reduction: A Public Health Approach to Drug Use** – James A. Inciardi, Lana D. Harrison
- Examines harm reduction strategies in different countries.

#### **5. Innovations & Future Trends in Global Psychiatry**

- **Digital Mental Health: Scaling Psychological and Psychiatric Treatments** – David Mohr, Stephen Schueller

Explores the role of AI, telepsychiatry, and digital interventions in mental health care.

- AI and Psychiatry: Opportunities and Challenges – The Lancet Psychiatry (2021) (Journal Article)
- Additional Reports & Online Resources
- WHO Mental Health Atlas – Global overview of mental health policies and resources.
  - World Psychiatric Association (WPA) Global Guidelines on Mental Health
  - College of Psychiatrists (UK) - International Psychiatry Resources

**Languages necessary to complete the course:**

English

**Notes:**

maximum 30 students

**Past grade distribution**

Total number of evaluated students: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. MUDr. Ľubomíra Izáková, PhD., MUDr. Mgr. Helena Aziri

**Last change:** 15.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.PK/L-S-VL-153-4/25	<b>Course title:</b> Psychotherapy
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b>	
<b>Learning outcomes:</b>	
<b>Class syllabus:</b> <ol style="list-style-type: none"> <li>1. Introduction to psychotherapy, basic concepts, mechanisms, methods, indications and contraindications of psychotherapy, research and ethics in psychotherapy</li> <li>2. Overview of basic psychotherapeutic directions and schools, "school and method" relationship</li> <li>3. Psychoanalytic, dynamic psychotherapy, humanistic psychotherapy, theoretical background, basics, methods, possibilities of use in practice</li> <li>4. Cognitive, behavioural, cognitive-behavioural psychotherapy, theoretical background, basics, methods and possibilities of use in practice</li> <li>5. Group psychotherapy, principles, methods, possibilities of use in practice</li> <li>6. Psychotherapy and rehabilitation in the treatment of psychoses, theoretical background, methods and possibilities of use in practice</li> <li>7. Community care, social and rehabilitation programs for patients with mental disorders</li> <li>8. Art therapy - theoretical background, possibilities of diagnostic and therapeutic use in practice</li> <li>9. Psychotherapy of anxiety, depressive and personality disorders, theoretical background, methods, possibilities of use in practice</li> <li>10. Psychotherapy of substance and non-substance addictions, theoretical background, methods, possibilities of use in practice</li> <li>11. Case reports - use of psychotherapeutic methods in practice</li> <li>12. Consultations</li> </ol>	
<b>Recommended literature:</b> Kratochvíl, S.: Základy psychoterapie. 6. aktualizované vydání. Praha: Portál, 2012. Žucha, I., Čaplová, T.: Propedeutika medicínskej psychoterapie. Bratislava, UK, 1999. 110 s. ISBN 80-223-1376-9	
<b>Languages necessary to complete the course:</b>	

Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b>					
Total number of evaluated students: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> MUDr. Zuzana Matzová, PhD.					
<b>Last change:</b> 15.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.PK/L-S-VL-153-5/25	<b>Course title:</b> Psychotherapy
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b>	
<b>Learning outcomes:</b> Basic concepts, mechanisms, methods, indications and contraindications of psychotherapy. Psychoanalysis. Individual psychology. Analytical psychology. Dynamic and interpersonal psychotherapy (Communication psychotherapy, Transaction analysis), Neoanalysis. Client-centered humanistic psychotherapy. Gestalt therapy Existential psychotherapy. Behavioural and cognitive-behavioural psychotherapy. Psychotherapy of schizophrenic psychoses, treatment of substance and non-substance addictions, treatment of depressive disorders, anxiety disorders, phobias and personality disorders. Community care - day psychiatric hospital, forms of social care, rehabilitation in psychiatry. Skills: After completing the course the student will be able to: Recognize the risks of psychotherapy, prerequisites for psychotherapy of therapist (authenticity), prerequisites for psychotherapy of patient. He will master the principles of the psychotherapeutic process, the principles of the psychotherapeutic approach. Identify variables in a psychotherapeutic relationship. Be oriented in psychotherapeutic methods, in their indications and techniques. Provide a motivational interview.	
<b>Class syllabus:</b> 1. Introduction to psychotherapy, basic concepts, mechanisms, methods, indications and contraindications of psychotherapy, research and ethics in psychotherapy 2. Overview of basic psychotherapeutic directions and schools, "school and method" relationship 3. Psychoanalytic, dynamic psychotherapy, humanistic psychotherapy, theoretical background, basics, methods, possibilities of use in practice 4. Cognitive, behavioural, cognitive-behavioural psychotherapy, theoretical background, basics, methods and possibilities of use in practice	

5. Group psychotherapy, principles, methods, possibilities of use in practice 6. Psychotherapy and rehabilitation in the treatment of psychoses, theoretical background, methods and possibilities of use in practice 7. Community care, social and rehabilitation programs for patients with mental disorders 8. Art therapy - theoretical background, possibilities of diagnostic and therapeutic use in practice 9. Psychotherapy of anxiety, depressive and personality disorders, theoretical background, methods, possibilities of use in practice 10. Psychotherapy of substance and non-substance addictions, theoretical background, methods, possibilities of use in practice 11. Case reports - use of psychotherapeutic methods in practice 12. Consultations					
<b>Recommended literature:</b> Kratochvíl, S.: Základy psychoterapie. 6. aktualizované vydání. Praha: Portál, 2012. Žucha, I., Čaplová, T.: Propedeutika medicínskej psychoterapie. Bratislava, UK, 1999. 110 s. ISBN 80-223-1376-9					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> MUDr. Zuzana Matzová, PhD.					
<b>Last change:</b> 15.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.RK/L-S-VL-095/22	<b>Course title:</b> Radiology and Nuclear Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2 and LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> 100% participation at seminars and interactive learning of case studies, after each seminar verification of knowledge by a written test with a success rate of at least 60% An exam: - 1x written test Test rating: A: 91-100%, B: 81-99%, C: 73-80%, D: 66-72%, E: 60-65%, Fx: 59% and less - practical part - evaluation of images from individual imaging modalities - theoretical part - 2 questions (according to the syllabus) The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> The theory and basic practical principles and indications of radiological imaging methods, functional imaging and non-imaging methods of nuclear medicine and therapeutic methods of nuclear medicine. To get acquainted with the diagnostic parameters of individual examination methods (sensitivity, specificity, diagnostic accuracy, positive and negative predictive value of the test result). <b>Skills:</b> <b>Radiology</b> - ability to determine radiological modalities - know the basic indications of individual imaging methods - knowledge of axial anatomy and topo-anatomical relationships - principles of interpretation of radiological examination methods <b>Nuclear medicine</b> - ability to identify functional imaging and non-imaging tests - know the principles and indications of functional imaging and non-imaging examination methods - know the principles and indications of treatment with open emitters	
<b>Class syllabus:</b>	

<p>Radiology: History of radiology in the world and in the Slovak Republic. X-ray, principle of radiation, properties of X-rays, radiation protection. Principles of classical radiology, ultrasonography, CT and MR and interventional radiology.</p> <p>Examination methods in imaging of the respiratory system - principles, indications, normal findings and pathological conditions. Examination methods in imaging the cardiovascular system - principles, indications, normal findings and pathological conditions.</p> <p>Examination methods in imaging the gastrointestinal system - principles, indications, normal findings and pathological conditions. Examination methods in imaging the uropoietic and reproductive system - principles, indications, normal findings and pathological conditions.</p> <p>Examination methods in imaging the nervous system - principles, indications, normal findings and pathological conditions. Examination methods in imaging the musculoskeletal system - principles, indications, normal findings and pathological conditions. Basic principles of mamodiagnosics - mammography, mamosonography, MR-mammography and interventional procedures in mamodiagnosics. Intervention methods in radiology - vascular and nonvascular interventions - technique, methodology, indications. Fundamentals of scientific work in radiology.</p> <p>Nuclear medicine: Principles of functional imaging and treatment in nuclear medicine. Principles of non-imaging examination methods in nuclear medicine. Physical principles of diagnostic and therapeutic methods of nuclear medicine. Instrumentation and radiopharmaceuticals in nuclear medicine. Functional imaging methods in endocrinology, nephrology, pneumology, cardiology, neurology, rheumatology and oncology in children and adults. Therapeutic methods of nuclear medicine in children and adults. Fundamentals of scientific work in nuclear medicine.</p>																	
<p><b>Recommended literature:</b></p> <p>Bilický, J. a kol. Rádiológia I . Všeobecná časť. VEDA, 2011</p> <p>Bilický J. a kol. Rádiológia. Špeciálna časť I-VII. VEDA, 2012</p> <p>Lehotská, V., Kršáková A. Rádiológia pre stomatólogov, časť 1. Všeobecná rádiológia, VEDA, 2018, ISBN: 978-80-224-1644-3</p> <p>Lehotská, V., Kršáková A. Rádiológia pre stomatólogov, časť 2. Špeciálna rádiológia, VEDA, 2018, ISBN: 978-80-224-1644-3</p> <p>Heřman, M. a kol. Základy radiologie. Univerzita Palackého v Olomouci, 2014</p> <p>Sutton, D. Textbook of Radiology and Imaging, 7th Edition, Churchill Livingstone, 2002, ISBN-13: 978-0443071096</p> <p>Soňa Balogová a kol. Základy nukleárnej medicíny, 2016, ISBN 978-80-223-4184-4</p> <p>European Nuclea</p>																	
<p><b>Languages necessary to complete the course:</b></p> <p>slovak</p>																	
<p><b>Notes:</b></p>																	
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 880</p> <table border="1"> <thead> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>FX</th></tr> </thead> <tbody> <tr> <td>8,64</td><td>29,32</td><td>38,18</td><td>19,77</td><td>4,09</td><td>0,0</td></tr> </tbody> </table>						A	B	C	D	E	FX	8,64	29,32	38,18	19,77	4,09	0,0
A	B	C	D	E	FX												
8,64	29,32	38,18	19,77	4,09	0,0												
<p><b>Lecturers:</b> prof. MUDr. Soňa Balogová, PhD., MUDr. Vladimír Javorka, PhD., prof. MUDr. Viera Lehotská, PhD., MUDr. Lucia Vanovčanová, PhD., MUDr. Katarína Rauová, PhD., doc. MUDr. Jana Poláková Mištinová, PhD.</p>																	
<p><b>Last change:</b> 30.05.2024</p>																	
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>																	

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026					
<b>University:</b> Comenius University Bratislava					
<b>Faculty:</b> Faculty of Medicine					
<b>Course ID:</b> LF.KG2/L-S-VL-154-4/19		<b>Course title:</b> Rehabilitation, Balneology, Physiatry			
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning					
<b>Type, volume, methods and workload of the student - additional information</b> COS					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 7.					
<b>Educational level:</b> I.II.					
<b>Prerequisites:</b> LF.IK5/L-S-VL-029/18 - Internal Medicine 1 or LF.IK5/L-S-VL-029/25 - Internal Medicine 1					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 57					
A	B	C	D	E	FX
82,46	10,53	7,02	0,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Silvester Krčméry, CSc.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026					
<b>University:</b> Comenius University Bratislava					
<b>Faculty:</b> Faculty of Medicine					
<b>Course ID:</b> LF.KG2/L-S-VL-154-5/19		<b>Course title:</b> Rehabilitation, Balneology, Physiatry			
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning					
<b>Type, volume, methods and workload of the student - additional information</b> COS					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 9.					
<b>Educational level:</b> I.II.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 48					
A	B	C	D	E	FX
89,58	8,33	0,0	2,08	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Silvester Krčméry, CSc.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KOCh/L-S-VL-163/19	<b>Course title:</b> Selected Chapters from Oncological Surgery
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% attendance at the practicals Theoretical exam: 3 question	
<b>Learning outcomes:</b> Knowledge: Acquisition of the theory of examination of the surgical patient, basics of medical documentation and medical records. Acquisition of theoretical procedures for surgical procedures in outpatient clinics, wards and operating theaters. Skills: Acquisition of surgical suturing, nodal technique, treatment of surgical wounds, principles of first aid for surgical injuries. Acquisition of the patient's preparation for surgery, disinfection of the operating field, coiling, separate principles of dressing technique and plaster fixation. Diagnostic procedures and laparoscopic skill on the trainer. Simulation workplace.	
<b>Class syllabus:</b> Current status of oncological surgery, social need, development perspectives - Breast tumours, the importance of sentinel diagnostics - Thyroid tumours, lymphadenectomy - Stomach tumours, D2 lymphadenectomy - Colorectal tumours, surgical treatment, preoperative radiotherapy - Tumours of the pancreas, indications for proximal, distal pancreatectomy - Liver tumors, distribution, indications for surgical treatment and radiofrequency ablation - Malignant melanoma, surgical treatment, indications for lymphadenectomy	
<b>Recommended literature:</b> : Durdík, Š.: Vybrané kapitoly z onkologickej chirurgie. Bratislava: WillArt, 2009, 304s. Kaušitz, J. a kol.: Onkológia. VEDA, 663 s. Kaušitz, J. a kol.: Špeciálna onkológia. Solen, 2020 692 s.	

Sabiston Textbook of Surgery 20th Edition, Elsevier 2016 Šiman, J. a kol.: Princípy chirurgie, Slovak Academic Press, 2007, 1.diel série Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série A Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série B					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 117					
A	B	C	D	E	FX
85,47	10,26	4,27	0,0	0,0	0,0
<b>Lecturers:</b> Dr.h.c. prof. MUDr. Štefan Durdík, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-065/19	<b>Course title:</b> Social Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture / seminar <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 24s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the practicals <b>Final exam:</b> - written test - oral exam: 2 questions, 15 minutes for preparation <b>Test evaluation:</b> A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> After successful completion of the course student will be able to: <ul style="list-style-type: none"> <li>- Understand the scope, mission, and tasks of social medicine.</li> <li>- Identify the most important periods from the history of medicine.</li> <li>- Describe the methods of population health assessment.</li> <li>- Describe the models and theories of health and disease, their determinants.</li> <li>- Explain the role of social determinants in shaping the health of population and individuals.</li> <li>- Understand the basic principles of health financing.</li> <li>- Know the basics of medical law and basic legal obligations of physician.</li> <li>- Understand main problems and challenges of global health.</li> <li>- Understand the principles of quality improvement and patient safety in health care.</li> <li>- Understand the obligation to protect human rights in medical practice.</li> <li>- Understand the concept of vulnerability and principles how to address the specific health care needs of vulnerable groups of population.</li> <li>- Describe the main principles and steps in evidence-based medicine</li> </ul> <b>Skills:</b> After successful completion of the course student will be able to: <ul style="list-style-type: none"> <li>- Measure and assess the health status of the population.</li> <li>- Analyze the health inequities in relation to social determinants.</li> <li>- Compare and analyze different types of health systems.</li> </ul>	

<ul style="list-style-type: none"> <li>- Discuss and apply the health legislation and principles of medical law in health care.</li> <li>- Discuss the role of international organizations in promotion and protection of health.</li> <li>- Apply the principles of quality improvement and patient safety in medical practice.</li> <li>- Address the health care needs of vulnerable groups of population.</li> <li>- Identify and resolve human rights issues in medical practice.</li> <li>- Search and apply the evidence-based approaches in medical practice.</li> </ul>					
<b>Class syllabus:</b> Health and disease: concepts, models, determinants, classification systems. Social determinants and health inequities. Health systems and health financing. Demography and health. Study of population health: sources of information, measures, methods of assessment. International Red Cross: mission, principles, tasks. World Health Organization: structure, mission, tasks, programmes, strategies.. Basics concepts of medical law. Rights of patients. Legal liability and medical malpractice in health care. Quality in health care: definitions, dimensions, quality management models in health care. Safety in healthcare. Health and human rights: concept, international human rights laws and norms, the right to health. Human resources in health care. Evidence-based medicine: definition, principles, steps, PICO. Health of vulnerable groups of population. Gender-based violence: the role of healthcare professionals Lectures: Measures of population health. Healthcare workforce. World Health Organization. International Red Cross. Health and Human Rights Quality in Healthcare. Practicals/Seminars: Social determinants of health. Health and healthcare for vulnerable groups of population. Right to health: a toolkit for healthcare professionals. Healthcare financing. Basic concepts in medical law. Evidence-based Medicine. Gender-based violence: the role of healthcare professionals.					
<b>Recommended literature:</b> OZOROVSKÝ, V. et al. Sociálne lekárstvo. Druhé aktualiz. a dopl. vyd. Bratislava: SAP, 2018. 226 s. ISBN 978-80-89607-68-6. Vybraná aktuálne legislatíva Slovenskej republiky, v platnom znení.					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 1764					
A	B	C	D	E	FX
86,39	11,11	1,93	0,28	0,28	0,0
<b>Lecturers:</b> doc. MUDr. Michaela Kostičová, PhD., MPH, doc. MUDr. Vojtech Ozorovský, CSc., Mgr. et Mgr. Silvia Capíková, PhD., PhDr. Ivana Vojteková, PhD.					
<b>Last change:</b> 11.06.2024					

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.OnK2/L-S-VL-155/19	<b>Course title:</b> Socially Serious Malignancy
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.OnK1/L-S-VL-050/19 - Oncological Propedeutics	
<b>Course requirements:</b> Exam: - written test at least 60% - oral theoretical part - 3 questions Test evaluation: A: 91 - 100%, B: 81 - 90%, C: 73 - 80%, D: 66 - 72%, E: 60 - 65%, Fx: 59% and less The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: 1. Expand knowledge of clinical oncology, tumor pathogenesis, diagnosis and treatment. 2. To point out the clinical significance of socially serious malignancies in Slovakia, an overview of their specifics, preventive, diagnostic and treatment options. 3. To point out the importance of the management of the toxicity of oncological treatment, emergencies in oncology as well as palliative treatment.	
<b>Class syllabus:</b> Introduction to oncology, Genitourinary malignancies, Tumors of the head and neck, Tumors of unknown origins, Lung tumors, Gynecological malignancies, Toxicity of oncological treatment and emergencies, Palliative care, GIT tumors, Breast tumors, Lymphoproliferative malignancies, Malignant melanoma.	
<b>Recommended literature:</b> • KLIMENT, J., PLANK, L., KAVCOVÁ, E. a kol.: Základy klinickej onkológie, Martin: Osveta 2016, ISBN 9788080634308. • KLIMENT, J., PLANK, L., KAVCOVÁ, E. a kol.: Základy klinickej onkológie, Špeciálna časť. Martin: Osveta 2016, ISBN 9788080634377 • Beata Mladosičovičová a kolektív - Molekulové mechanizmy patogenézy nádorov Slovak Academic Press, 2012, ISBN 9788080950798	
<b>Languages necessary to complete the course:</b>	

slovak					
<b>Notes:</b>					
<b>Past grade distribution</b>					
Total number of evaluated students: 38					
A	B	C	D	E	FX
76,32	10,53	7,89	5,26	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Michal Mego, DrSc., prof. MUDr. Dalibor Ondruš, DrSc., doc. MUDr. Jozef Mardiak, CSc., doc. MUDr. Katarína Rejleková, PhD.					
<b>Last change:</b> 20.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-182-4/24	<b>Course title:</b> Spiritual Aspects of Caring for the Patients
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 90% participation in exercises/training sessions Final exam: oral exam - 2 questions.	
<b>Learning outcomes:</b> In the context of a holistic approach to the patient, providing spiritual care to the sick belongs to the basic equipment of the physician and his/her human relationship with the patient. The aim of the course is to draw the attention of the audience to the spiritual dimension and spiritual needs of the sick person as well as the spirituality of the physician himself. <b>Knowledge: Student</b> - is able to reflect on pain, suffering and attitudes towards suffering, distinguish between physical, social, psychological and spiritual needs, knows the pathophysiological and psychological aspects of spiritual care; - can distinguish between spiritual and psychological care; - can justify the validity and importance of spiritual care and knows its basic characteristics; - understands the approach to the provision of spiritual care to patients with and without religion and the ways in which it is provided in the health care system; - understands the cultural and religious changes in society and their impact on the perception of the spiritual needs of the sick; knows the history of the provision of spiritual care for the sick; - knows the institutions, professional associations, associations in charge of spiritual ministry, the code of ethics of persons performing spiritual ministry in the hospital; - understands the content and meaning of selected rituals and acts provided in the context of spiritual ministry by persons in charge of the relevant religious denominations. <b>Skills: student</b> - The student knows the characteristics of healthy spirituality and can distinguish between religious and non-religious spirituality; - Knows how to help develop spirituality in a patient; - Knows how to identify the spiritual needs of the sick;	

- Knows how to communicate and take a spiritual history;
- knows how to effectively apply the knowledge gained in the context of complex health care management and integrate it into a therapeutic plan to address the spiritual needs of the patient, taking into account the patient's preferences and values.

### **Class syllabus:**

Basic concepts - spirituality, religiosity, spiritual care, pastoral care, spiritual ministry, spiritual needs, pathophysiology of spiritual needs. Body and soul. Who is man - Human person and philosophical anthropology. Pain and suffering in philosophy and culture. Spiritual pain and its manifestations. The importance of spirituality in medicine. Socio-cultural changes through the ages and their impact on contemporary perceptions of spirituality. Spirituality and religions. Spirituality and non-religious people. Basic characteristics of spiritual care of the sick. Psychological, legal, ethical and practical aspects of the provision of spiritual care. Spiritual and pastoral care in hospitals - organisation, content, form, capacity, limits. The health worker, the spiritual person and the volunteer as an accompanying person. The clergy person as part of a multidisciplinary team - qualifications, credentials, competencies. Comprehensive health care management of the sick person with regard to his/her preferences and values, including the integration of spiritual needs. Religious needs, acts and rituals. Communication - conducting the pastoral conversation.

### **Recommended literature:**

TRIZULJAKOVÁ, J., MEGO, M. a kol. Duchovné aspekty starostlivosti o chorých. Bratislava: Univerzita Komenského 2024. 94 strán. ISBN 978-80-223-5907-8. ISBN 978-80-223-5908-5 (online). [https://stella.uniba.sk/texty/LF\\_kol\\_starostlivost\\_o\\_chorych-duchovne\\_aspekty.pdf](https://stella.uniba.sk/texty/LF_kol_starostlivost_o_chorych-duchovne_aspekty.pdf)

### **Languages necessary to complete the course:**

Slovak

### **Notes:**

The course has a limited capacity of 15 students - in case of higher interest, priority is given to the first 15 students enrolled.

### **Past grade distribution**

Total number of evaluated students: 4

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** MUDr. Jana Trizuljaková, PhD., prof. MUDr. Michal Mego, DrSc., prof. MUDr. Beáta Mladosičová, CSc., prof. MUDr. Alexandra Kolenová, PhD., MUDr. Andrea Škripeková, PhD., Jakub Betinský, PhD. Margita Kollárová, PhD.

**Last change:** 19.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-182-5/24	<b>Course title:</b> Spiritual Aspects of Caring for the Patients
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 90% participation in exercises/training sessions Final exam: oral exam - 2 questions.	
<b>Learning outcomes:</b> In the context of a holistic approach to the patient, providing spiritual care to the sick belongs to the basic equipment of the physician and his/her human relationship with the patient. The aim of the course is to draw the attention of the audience to the spiritual dimension and spiritual needs of the sick person as well as the spirituality of the physician himself. <b>Knowledge: Student</b> - is able to reflect on pain, suffering and attitudes towards suffering, distinguish between physical, social, psychological and spiritual needs, knows the pathophysiological and psychological aspects of spiritual care; - can distinguish between spiritual and psychological care; - can justify the validity and importance of spiritual care and knows its basic characteristics; - understands the approach to the provision of spiritual care to patients with and without religion and the ways in which it is provided in the health care system; - understands the cultural and religious changes in society and their impact on the perception of the spiritual needs of the sick; knows the history of the provision of spiritual care for the sick; - knows the institutions, professional associations, associations in charge of spiritual ministry, the code of ethics of persons performing spiritual ministry in the hospital; - understands the content and meaning of selected rituals and acts provided in the context of spiritual ministry by persons in charge of the relevant religious denominations. <b>Skills: student</b> - The student knows the characteristics of healthy spirituality and can distinguish between religious and non-religious spirituality; - Knows how to help develop spirituality in a patient; - Knows how to identify the spiritual needs of the sick;	



- Knows how to communicate and take a spiritual history;
- knows how to effectively apply the knowledge gained in the context of complex health care management and integrate it into a therapeutic plan to address the spiritual needs of the patient, taking into account the patient's preferences and values.

#### **Class syllabus:**

Basic concepts - spirituality, religiosity, spiritual care, pastoral care, spiritual ministry, spiritual needs, pathophysiology of spiritual needs. Body and soul. Who is man - Human person and philosophical anthropology. Pain and suffering in philosophy and culture. Spiritual pain and its manifestations. The importance of spirituality in medicine. Socio-cultural changes through the ages and their impact on contemporary perceptions of spirituality. Spirituality and religions. Spirituality and non-religious people. Basic characteristics of spiritual care of the sick. Psychological, legal, ethical and practical aspects of the provision of spiritual care. Spiritual and pastoral care in hospitals - organisation, content, form, capacity, limits. The health worker, the spiritual person and the volunteer as an accompanying person. The clergy person as part of a multidisciplinary team - qualifications, credentials, competencies. Comprehensive health care management of the sick person with regard to his/her preferences and values, including the integration of spiritual needs. Religious needs, acts and rituals. Communication - conducting the pastoral conversation.

#### **Recommended literature:**

TRIZULJAKOVÁ, J., MEGO, M. a kol. Duchovné aspekty starostlivosti o chorých. Bratislava: Univerzita Komenského 2024. 94 strán. ISBN 978-80-223-5907-8. ISBN 978-80-223-5908-5 (online). [https://stella.uniba.sk/texty/LF\\_kol\\_starostlivost\\_o\\_chorych-duchovne\\_aspekty.pdf](https://stella.uniba.sk/texty/LF_kol_starostlivost_o_chorych-duchovne_aspekty.pdf)

#### **Languages necessary to complete the course:**

Slovak

#### **Notes:**

The course has a limited capacity of 15 students - in case of higher interest, priority is given to the first 15 students enrolled.

#### **Past grade distribution**

Total number of evaluated students: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** MUDr. Jana Trizuljaková, PhD., prof. MUDr. Michal Mego, DrSc., prof. MUDr. Beáta Mladosičová, CSc., MUDr. Andrea Škripeková, PhD., prof. MUDr. Alexandra Kolenová, PhD., Jakub Betinský, PhD. Margita Kollárová, PhD.

**Last change:** 19.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-113-4/25	<b>Course title:</b> Street Medicine 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 12s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Lectures: 12h/semester (online and in-person) Practical Exercises: 12h/semester (wound management training, field work) Method of Educational Activities: Combined (in-person and online)	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 90% active participation in lectures and practical sessions Assessment Method: Oral examination: colloquium (group discussion) / written assignment on selected topic	
<b>Learning outcomes:</b> The course aims to introduce students to the principles of providing healthcare to people from marginalized communities within their natural environment. Knowledge: Upon successful completion of the course, the student: <ul style="list-style-type: none"> <li>• Can explain the causes and mechanisms underlying health inequities</li> <li>• Understands the significance of social determinants of health and their interrelation with other health determinants</li> <li>• Is familiar with trauma-informed care principles</li> <li>• Understands the importance of equal treatment and non-discrimination in healthcare delivery</li> <li>• Can explain the concept of harm reduction, its relevance in public health, and its practical applications</li> <li>• Knows the principles of the "Housing First" model as an effective approach to homelessness from a healthcare and social policy perspective</li> </ul> Skills: <ul style="list-style-type: none"> <li>• Can address and manage bias and prevent discrimination in healthcare provision</li> <li>• Actively engages with the issue of social determinants of health and contributes to improving health and healthcare accessibility for marginalized populations</li> <li>• Advocates for the rights and interests of patients from excluded communities and promotes social responsibility in healthcare</li> </ul>	

- Masters proper wound care techniques based on current standard procedures and is able to carry out wound treatment independently
- Gains experience in delivering healthcare outside traditional medical facilities, acquiring practical skills for working in low-threshold or community-based healthcare settings

### **Class syllabus:**

#### Course Outline:

1. Health of People from Marginalized Communities
  - o Social determinants of health
  - o Barriers to healthcare access
  - o Health conditions and challenges in marginalized populations
  - o Preventive strategies and possible solutions
2. Discrimination in Healthcare
  - o Concepts of stigmatization and discrimination, anti-discrimination legislation
  - o Marginalization, vulnerability, intersectionality
  - o Recognizing and addressing prejudice
3. Gender-Based Violence
  - o Definition, causes, manifestations, and consequences
  - o Identifying gender-based violence
  - o Communication with survivors
  - o Role of healthcare professionals
  - o Available support mechanisms
4. Harm Reduction – Risk Minimization Approach
  - o Fundamental principles and effectiveness
  - o Practical applications in working with people who use psychoactive substances
  - o Importance of low-threshold healthcare services
5. Housing First – A Comprehensive Approach to Homelessness
  - o Comparison of traditional vs. modern homelessness intervention techniques
  - o Health benefits of stable housing
  - o Collaboration between healthcare and social sectors
6. Wound Care I. (Repeated Practical Sessions)
  - o Types of wounds
  - o Wound healing processes and phases
  - o Correct wound management procedures
  - o Basic bandaging techniques

### **Recommended literature:**

Kostičová M. Sociálne determinanty zdravia a nerovnosti v zdraví. In. Ozorovský V. a kol. Sociálne lekárstvo. Bratislava: SAP, 2018. s. 35-46, ISBN 978-80-89607-68-6

Dubová A., Kostičová M., Roussier L. Právne aspekty dostupnosti zdravotnej starostlivosti ľudí bez domova s dlhmi na zdravotnom poistení. Bratislava: Proti prúdu, 2020. 71 s. ISBN 978-80-973855-3-8

Filákovská D., Chovan Sh., Dankukincová Z. Vyrastať v chudobe: vplyv života v marginalizovaných rómskych komunitách na zdravie a vývin v ranom detstve. Košice: ŠafárikPress, 2024. 80 s. ISBN 978-80-574-0321-0

Kozoň V. a kol. Štandardný postup: Management rán. Bratislava: MZ SR, 2021

Medecins Sans Frontieres. Clinical guidelines - Diagnosis and treatment manual., 2025

World Health Organization. Clinical management of rape and intimate partner violence survivors. WHO, 2020

<p>Tito E. Street Medicine: Barrier Considerations for Healthcare Providers in the U.S. Cureus. 2023 May 9;15(5):e38761. doi: 10.7759/cureus.38761. <a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC10250111/">https://pmc.ncbi.nlm.nih.gov/articles/PMC10250111/</a></p> <p>Kaufman RA, Mallick M, Louis JT, Williams M, Oriol N. The Role of Street Medicine and Mobile Clinics for Persons Experiencing Homelessness: A Scoping Review. International Journal of Environmental Research and Public Health. 2024; 21(6):760. <a href="https://doi.org/10.3390/ijerph21060760">https://doi.org/10.3390/ijerph21060760</a></p> <p>National Health Care for the Homeless Council. Adapted Clinical Guidelines for Patients Experiencing Homelessness. <a href="https://nhchc.org/clinical-practice/adapted-clinical-guidelines/">https://nhchc.org/clinical-practice/adapted-clinical-guidelines/</a></p> <p>Street Medicine Institute <a href="https://www.streetmedicine.org/resources">https://www.streetmedicine.org/resources</a></p>					
<p><b>Languages necessary to complete the course:</b> Slovak</p>					
<p><b>Notes:</b> Max. number of students: 25 (the 4th and 5th year)</p>					
<p><b>Past grade distribution</b> Total number of evaluated students: 0</p>					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<p><b>Lecturers:</b> doc. MUDr. Michaela Kostičová, PhD., MPH, MUDr. Hamid Ur Rahman Himat, Elena Konareva</p>					
<p><b>Last change:</b> 19.05.2025</p>					
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-113-5/25	<b>Course title:</b> Street Medicine 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 12s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Lectures: 12h/semester (online and in-person) Practical Exercises: 12h/semester (wound management training, field work) Method of Educational Activities: Combined (in-person and online)	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 90% active participation in lectures and practical sessions Assessment Method: Oral examination: colloquium (group discussion) / written assignment on selected topic	
<b>Learning outcomes:</b> The course aims to introduce students to the principles of providing healthcare to people from marginalized communities within their natural environment. Knowledge: Upon successful completion of the course, the student: <ul style="list-style-type: none"> <li>• Can explain the causes and mechanisms underlying health inequities</li> <li>• Understands the significance of social determinants of health and their interrelation with other health determinants</li> <li>• Is familiar with trauma-informed care principles</li> <li>• Understands the importance of equal treatment and non-discrimination in healthcare delivery</li> <li>• Can explain the concept of harm reduction, its relevance in public health, and its practical applications</li> <li>• Knows the principles of the "Housing First" model as an effective approach to homelessness from a healthcare and social policy perspective</li> </ul> Skills: <ul style="list-style-type: none"> <li>• Can address and manage bias and prevent discrimination in healthcare provision</li> <li>• Actively engages with the issue of social determinants of health and contributes to improving health and healthcare accessibility for marginalized populations</li> <li>• Advocates for the rights and interests of patients from excluded communities and promotes social responsibility in healthcare</li> </ul>	

- Masters proper wound care techniques based on current standard procedures and is able to carry out wound treatment independently
- Gains experience in delivering healthcare outside traditional medical facilities, acquiring practical skills for working in low-threshold or community-based healthcare settings

#### **Class syllabus:**

1. Health of People from Marginalized Communities
  - o Social determinants of health
  - o Barriers to healthcare access
  - o Health conditions and challenges in marginalized populations
  - o Preventive strategies and possible solutions
2. Discrimination in Healthcare
  - o Concepts of stigmatization and discrimination, anti-discrimination legislation
  - o Marginalization, vulnerability, intersectionality
  - o Recognizing and addressing prejudice
3. Gender-Based Violence
  - o Definition, causes, manifestations, and consequences
  - o Identifying gender-based violence
  - o Communication with survivors
  - o Role of healthcare professionals
  - o Available support mechanisms
4. Harm Reduction – Risk Minimization Approach
  - o Fundamental principles and effectiveness
  - o Practical applications in working with people who use psychoactive substances
  - o Importance of low-threshold healthcare services
5. Housing First – A Comprehensive Approach to Homelessness
  - o Comparison of traditional vs. modern homelessness intervention techniques
  - o Health benefits of stable housing
  - o Collaboration between healthcare and social sectors
6. Wound Care I. (Repeated Practical Sessions)
  - o Types of wounds
  - o Wound healing processes and phases
  - o Correct wound management procedures
  - o Basic bandaging techniques

#### **Recommended literature:**

Kostičová M. Sociálne determinanty zdravia a nerovnosti v zdraví. In. Ozorovský V. a kol. Sociálne lekárstvo. Bratislava: SAP, 2018. s. 35-46, ISBN 978-80-89607-68-6

Dubová A., Kostičová M., Roussier L. Právne aspekty dostupnosti zdravotnej starostlivosti ľudí bez domova s dlhmi na zdravotnom poistení. Bratislava: Proti prúdu, 2020. 71 s. ISBN 978-80-973855-3-8

Filákovská D., Chovan Sh., Dankukincová Z. Vyrastať v chudobe: vplyv života v marginalizovaných rómskych komunitách na zdravie a vývin v ranom detstve. Košice: ŠafárikPress, 2024. 80 s. ISBN 978-80-574-0321-0

Kozoň V. a kol. Štandardný postup: Management rán. Bratislava: MZ SR, 2021

Medecins Sans Frontieres. Clinical guidelines - Diagnosis and treatment manual., 2025

World Health Organization. Clinical management of rape and intimate partner violence survivors. WHO, 2020

<p>Tito E. Street Medicine: Barrier Considerations for Healthcare Providers in the U.S. Cureus. 2023 May 9;15(5):e38761. doi: 10.7759/cureus.38761. <a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC10250111/">https://pmc.ncbi.nlm.nih.gov/articles/PMC10250111/</a></p> <p>Kaufman RA, Mallick M, Louis JT, Williams M, Oriol N. The Role of Street Medicine and Mobile Clinics for Persons Experiencing Homelessness: A Scoping Review. International Journal of Environmental Research and Public Health. 2024; 21(6):760. <a href="https://doi.org/10.3390/ijerph21060760">https://doi.org/10.3390/ijerph21060760</a></p> <p>National Health Care for the Homeless Council. Adapted Clinical Guidelines for Patients Experiencing Homelessness. <a href="https://nhchc.org/clinical-practice/adapted-clinical-guidelines/">https://nhchc.org/clinical-practice/adapted-clinical-guidelines/</a></p> <p>Street Medicine Institute <a href="https://www.streetmedicine.org/resources">https://www.streetmedicine.org/resources</a></p>					
<p><b>Languages necessary to complete the course:</b> Slovak</p>					
<p><b>Notes:</b> Max. number of students: 25 (the 4th and 5th year)</p>					
<p><b>Past grade distribution</b> Total number of evaluated students: 0</p>					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<p><b>Lecturers:</b> doc. MUDr. Michaela Kostičová, PhD., MPH, MUDr. Hamid Ur Rahman Himat, Elena Konareva</p>					
<p><b>Last change:</b> 19.05.2025</p>					
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-114-4/25	<b>Course title:</b> Street Medicine 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 12s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Lectures: 12h/semester (online and in-person) Practical Exercises: 12h/semester (communication skills training, wound management training, management of selected acute and chronic diseases, field work) Method of Educational Activities: Combined (in-person and online)	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 90% active participation in lectures and practical sessions Assessment Method: Oral examination: colloquium (group discussion) / written assignment on selected topic	
<b>Learning outcomes:</b> The course aims to introduce students to the principles of providing healthcare to people from marginalized communities within their natural environment. Knowledge: Upon successful completion of the course, the student: <ul style="list-style-type: none"> <li>• Understands the healthcare system in Slovakia with a focus on accessibility and the specificities of care for patients from marginalized communities.</li> <li>• Demonstrates knowledge of empathetic, assertive, and respectful communication principles when interacting with patients from socially disadvantaged backgrounds.</li> <li>• Comprehends the complex health issues and specific needs of individuals from socially excluded populations.</li> <li>• Understands the physiological processes of acute and chronic wound healing and is familiar with evidence-based wound care practices.</li> <li>• Can identify major barriers to accessing healthcare for people from marginalized communities.</li> <li>• Is familiar with street medicine clinical guidelines for prevention, diagnosis and treatment of selected diseases.</li> </ul> Skills: <ul style="list-style-type: none"> <li>• Applies a trauma-informed approach in communication and treatment of patients from excluded communities.</li> </ul>	



- Develops the ability to respond appropriately to dynamic field situations, including identifying individuals with deteriorating health and ensuring appropriate follow-up care.
- Builds competencies in interdisciplinary collaboration and integrates medical and social approaches when working with complex and vulnerable patients.
- Strengthens communication and psychosocial competencies essential for respectful and dignified engagement with patients from socially excluded groups.
- Applies the principles of street medicine and follows the clinical guidelines when providing health care for marginalized groups of population.
- Gains hands-on experience providing care outside of traditional healthcare settings, developing practical skills needed for work in low-threshold or community-oriented healthcare services.

#### **Class syllabus:**

1. Sex Work, Human Trafficking, and Healthcare
  - o Specific healthcare needs of individuals involved in sex work
  - o Risk factors and preventive measures
  - o Legal and ethical considerations in providing care
2. Communication and Interpersonal Skills in the Field
  - o Simulated patient interactions in various scenarios
  - o Assertive and respectful communication
  - o Trauma-informed communication techniques
3. Management of Acute Medical Conditions in the Field
  - o Prevention, diagnosis and treatment of injuries
  - o Prevention, diagnosis and treatment of infectious diseases
  - o Assessing patient condition severity and referral to appropriate care
  - o Basics of managing acute health conditions and indications for further medical intervention
4. Management of Chronic Diseases in the Field
  - o Prevention, diagnosis and treatment of selected chronic conditions
  - o Patient navigation and accompaniment to medical appointments
  - o Collaboration with outpatient and inpatient healthcare providers
5. Multidisciplinary Collaboration and Ethical Aspects of Street Medicine
  - o Working alongside social workers, psychologists, and other professionals
  - o Ethical dilemmas in field-based healthcare
  - o Principles of integrated and community-based healthcare delivery
6. Wound Care II. (Repeated Practical Sessions)
  - o Correct wound treatment procedures
  - o Types and appropriate use of dressing materials
  - o Proper selection of antiseptics for acute and chronic wound care
  - o Basics of occupational safety during wound care

#### **Recommended literature:**

Kostičová M. Sociálne determinanty zdravia a nerovnosti v zdraví. In. Ozorovský V. a kol. Sociálne lekárstvo. Bratislava: SAP, 2018. s. 35-46, ISBN 978-80-89607-68-6

Dubová A., Kostičová M., Roussier L. Právne aspekty dostupnosti zdravotnej starostlivosti ľudí bez domova s dlhmi na zdravotnom poistení. Bratislava: Proti prúdu, 2020. 71 s. ISBN 978-80-973855-3-8

Fil'akovská D., Chovan Sh., Dankukincová Z. Vyrastať v chudobe: vplyv života v marginalizovaných rómskych komunitách na zdravie a vývin v ranom detstve. Košice: ŠafárikPress, 2024. 80 s. ISBN 978-80-574-0321-0

Kozoň V. a kol. Štandardný postup: Management rán. Bratislava: MZ SR, 2021

Medecins Sans Frontieres. Clinical guidelines - Diagnosis and treatment manual., 2025

<p>World Health Organization. Clinical management of rape and intimate partner violence survivors. WHO, 2020</p> <p>Tito E. Street Medicine: Barrier Considerations for Healthcare Providers in the U.S. Cureus. 2023 May 9;15(5):e38761. doi: 10.7759/cureus.38761. <a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC10250111/">https://pmc.ncbi.nlm.nih.gov/articles/PMC10250111/</a></p> <p>Kaufman RA, Mallick M, Louis JT, Williams M, Oriol N. The Role of Street Medicine and Mobile Clinics for Persons Experiencing Homelessness: A Scoping Review. International Journal of Environmental Research and Public Health. 2024; 21(6):760. <a href="https://doi.org/10.3390/ijerph21060760">https://doi.org/10.3390/ijerph21060760</a></p> <p>National Health Care for the Homeless Council. Adapted Clinical Guidelines for Patients Experiencing Homelessness. <a href="https://nhchc.org/clinical-practice/adapted-clinical-guidelines/">https://nhchc.org/clinical-practice/adapted-clinical-guidelines/</a></p> <p>Street Medicine Institute <a href="https://www.streetmedicine.org/resources">https://www.streetmedicine.org/resources</a></p>					
<p><b>Languages necessary to complete the course:</b></p> <p>Slovak</p>					
<p><b>Notes:</b></p> <p>Max. number of students: 25 (the 4th and 5th year)</p>					
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 0</p>					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<p><b>Lecturers:</b> doc. MUDr. Michaela Kostičová, PhD., MPH, MUDr. Hamid Ur Rahman Himat, Elena Konareva</p>					
<p><b>Last change:</b> 19.05.2025</p>					
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚSLLE/L-S-VL-114-5/25	<b>Course title:</b> Street Medicine 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 12s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS Lectures: 12h/semester (online and in-person) Practical Exercises: 12h/semester (communication skills training, wound management training, management of selected acute and chronic diseases, field work) Method of Educational Activities: Combined (in-person and online)	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 90% active participation in lectures and practical sessions Assessment Method: Oral examination: colloquium (group discussion) / written assignment on selected topic	
<b>Learning outcomes:</b> The course aims to introduce students to the principles of providing healthcare to people from marginalized communities within their natural environment. Knowledge: Upon successful completion of the course, the student: <ul style="list-style-type: none"> <li>• Understands the healthcare system in Slovakia with a focus on accessibility and the specificities of care for patients from marginalized communities.</li> <li>• Demonstrates knowledge of empathetic, assertive, and respectful communication principles when interacting with patients from socially disadvantaged backgrounds.</li> <li>• Comprehends the complex health issues and specific needs of individuals from socially excluded populations.</li> <li>• Understands the physiological processes of acute and chronic wound healing and is familiar with evidence-based wound care practices.</li> <li>• Can identify major barriers to accessing healthcare for people from marginalized communities.</li> <li>• Is familiar with street medicine clinical guidelines for prevention, diagnosis and treatment of selected diseases.</li> </ul> Skills: <ul style="list-style-type: none"> <li>• Applies a trauma-informed approach in communication and treatment of patients from excluded communities.</li> </ul>	

- Develops the ability to respond appropriately to dynamic field situations, including identifying individuals with deteriorating health and ensuring appropriate follow-up care.
- Builds competencies in interdisciplinary collaboration and integrates medical and social approaches when working with complex and vulnerable patients.
- Strengthens communication and psychosocial competencies essential for respectful and dignified engagement with patients from socially excluded groups.
- Applies the principles of street medicine and follows the clinical guidelines when providing health care for marginalized groups of population.
- Gains hands-on experience providing care outside of traditional healthcare settings, developing practical skills needed for work in low-threshold or community-oriented healthcare services.

#### **Class syllabus:**

1. Sex Work, Human Trafficking, and Healthcare
  - o Specific healthcare needs of individuals involved in sex work
  - o Risk factors and preventive measures
  - o Legal and ethical considerations in providing care
2. Communication and Interpersonal Skills in the Field
  - o Simulated patient interactions in various scenarios
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  - o Trauma-informed communication techniques
3. Management of Acute Medical Conditions in the Field
  - o Prevention, diagnosis and treatment of injuries
  - o Prevention, diagnosis and treatment of infectious diseases
  - o Assessing patient condition severity and referral to appropriate care
  - o Basics of managing acute health conditions and indications for further medical intervention
4. Management of Chronic Diseases in the Field
  - o Prevention, diagnosis and treatment of selected chronic conditions
  - o Patient navigation and accompaniment to medical appointments
  - o Collaboration with outpatient and inpatient healthcare providers
5. Multidisciplinary Collaboration and Ethical Aspects of Street Medicine
  - o Working alongside social workers, psychologists, and other professionals
  - o Ethical dilemmas in field-based healthcare
  - o Principles of integrated and community-based healthcare delivery
6. Wound Care II. (Repeated Practical Sessions)
  - o Correct wound treatment procedures
  - o Types and appropriate use of dressing materials
  - o Proper selection of antiseptics for acute and chronic wound care
  - o Basics of occupational safety during wound care

#### **Recommended literature:**

Kostičová M. Sociálne determinanty zdravia a nerovnosti v zdraví. In. Ozorovský V. a kol. Sociálne lekárstvo. Bratislava: SAP, 2018. s. 35-46, ISBN 978-80-89607-68-6

Dubová A., Kostičová M., Roussier L. Právne aspekty dostupnosti zdravotnej starostlivosti ľudí bez domova s dlhmi na zdravotnom poistení. Bratislava: Proti prúdu, 2020. 71 s. ISBN 978-80-973855-3-8

Fil'akovská D., Chovan Sh., Dankukincová Z. Vyrastať v chudobe: vplyv života v marginalizovaných rómskych komunitách na zdravie a vývin v ranom detstve. Košice: ŠafárikPress, 2024. 80 s. ISBN 978-80-574-0321-0

Kozoň V. a kol. Štandardný postup: Management rán. Bratislava: MZ SR, 2021

Medecins Sans Frontieres. Clinical guidelines - Diagnosis and treatment manual., 2025

<p>World Health Organization. Clinical management of rape and intimate partner violence survivors. WHO, 2020</p> <p>Tito E. Street Medicine: Barrier Considerations for Healthcare Providers in the U.S. Cureus. 2023 May 9;15(5):e38761. doi: 10.7759/cureus.38761. <a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC10250111/">https://pmc.ncbi.nlm.nih.gov/articles/PMC10250111/</a></p> <p>Kaufman RA, Mallick M, Louis JT, Williams M, Oriol N. The Role of Street Medicine and Mobile Clinics for Persons Experiencing Homelessness: A Scoping Review. International Journal of Environmental Research and Public Health. 2024; 21(6):760. <a href="https://doi.org/10.3390/ijerph21060760">https://doi.org/10.3390/ijerph21060760</a></p> <p>National Health Care for the Homeless Council. Adapted Clinical Guidelines for Patients Experiencing Homelessness. <a href="https://nhchc.org/clinical-practice/adapted-clinical-guidelines/">https://nhchc.org/clinical-practice/adapted-clinical-guidelines/</a></p> <p>Street Medicine Institute <a href="https://www.streetmedicine.org/resources">https://www.streetmedicine.org/resources</a></p>					
<p><b>Languages necessary to complete the course:</b></p> <p>Slovak</p>					
<p><b>Notes:</b></p> <p>Max. number of students: 25 (the 4th and 5th year)</p>					
<p><b>Past grade distribution</b></p> <p>Total number of evaluated students: 0</p>					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<p><b>Lecturers:</b> doc. MUDr. Michaela Kostičová, PhD., MPH, MUDr. Hamid Ur Rahman Himat, Elena Konareva</p>					
<p><b>Last change:</b> 19.05.2025</p>					
<p><b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH</p>					

## STATE EXAM DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ChK/L-VL-ŠS-2/15	<b>Course title:</b> Surgery
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 11., 12..	
<b>Educational level:</b> I.II.	
<b>State exam syllabus:</b>	
<b>Last change:</b>	
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH	

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ChK1/L-S-VL-104/19	<b>Course title:</b> Surgery - summer practice
<b>Educational activities:</b> <b>Type of activities:</b> practice <b>Number of hours:</b> <b>per week: per level/semester:</b> 80s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100 % participation in internships and seminars.	
<b>Learning outcomes:</b> Knowledge: Mastering diagnostics, conservative and surgical treatment in abdominal surgery and traumatology theoretically. Skills: Establish examination procedures, prescribe the required treatment. Scrubbing-in for abdominal surgery, especially in sudden abdominal events. Master the indication criteria for surgical diseases. Diagnostic procedures and laparoscopic dexterity on the simulator. Simulation workplace.	
<b>Class syllabus:</b> Examination of a surgical patient, treatment of injuries. Outpatient department - assistance in small surgical procedures, performing small surgical procedures under supervision, bandages, wound dressings and plastering, diagnostic examinations. Work in the department - examination and diagnosis of sudden abdominal events, indications for surgeries, preoperative preparation of patients, postoperative monitoring, treatment of patients, scrubbing-in to operations. X-ray evaluation, evaluation of ultrasound and CT findings. Perform emergency service once.	
<b>Recommended literature:</b> Breza, J a kol.: Princípy chirurgie, Slovak Academic Press, 2016, 4.diel série Cameron, J.: Current Surgical Therapy. 8th ed. London: Churchill Livingstone, 2004, Coran G. Arnold at all.: Pediatric Surgery, Vol. 1, 2, Elsevier 2012, Černý, J. (ed.): Chirurgia tráviacej rúry. 4 zv. Martin: Osveta, 1988 Černý, J. (ed.): Špeciálna chirurgia 2. Chirurgia brušných orgánov a retroperitonea, Martin: Osveta, 1992 Černý, J. (ed.): Špeciálna chirurgia. 4 zv. Martin: Osveta, 1988-1995. Durdík, Š.: Vybrané kapitoly z onkologickej chirurgie. Bratislava: WillArt, 2009, 304s. Ferko, A., Vobořil, Z. (ed.): Chirurgie v kostce. Praha: Grada, 2002. 596 s. Ferko, A., Šubrt, Z.: Chirurgie v kostce, Praha: Grada, 2015 512 s. Haruštiak, S. a kol.: Princípy chirurgie, Slovak Academic Press, 2010, 2.diel série	

Huťan M. a kol.: Základy všeobecnej a špeciálnej chirurgie. Bratislava UK2012 (198 s.)  
 Kaušitz, J. a kol.: Onkológia. VEDA, 663 s.  
 Kaušitz, J. a kol.: Špeciálna onkológia. Solen, 2020 692 s.  
 Kirk, R.M.: General Surgical Operations. 5th ed. London: Churchill Livingstone, 2006  
 Marek, V., Durdík, Š.: Akútna apendicitída – Včasná diagnostika a predoperačná rozvaha, 2021, 120s.  
 Olejník, J. (ed.): Perioperačný manuál chirurga. Bratislava: Ebner, 2002, 388 s.  
 Olejník, J. (ed.): Akútna pankreatitída. Bratislava: Ebner, 2002, 68 s.  
 Pechan, J.: Princípy chirurgie, PRIMA –PRINT, 2013, 3.diel série  
 Pokorný V. a kol.: Traumatológia. 1.vyd. 2012 Praha Triton (307 st.)  
 Sabiston Textbook of Surgery 20th Edition, Elsevier 2016  
 Šiman, J. a kol.: Princípy chirurgie, Slovak Academic Press, 2007, 1.diel série  
 Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série A  
 Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série B  
 Škultéty, J. : Špeciálna chirurgia I., Univerzita Komenského v Bratislave, 2014  
 Štencl, J., Holéczy, P.: Základné laparoskopické operácie v chirurgii. Martin: Osveta, 2001. 131 s.  
 Vidiščák, M. a kol.: Novorodenecká chirurgia I, M-Servis 2008  
 Vrtík, L. a kol.: Základy chirurgie, Univerzita Komenského v Bratislave, 2019  
 Way, L.W. (ed.): Současná chirurgická diagnostika a léčba. Praha: Grada, 2000, 1660 s.  
 Zacharias Zachariou: Pediatric Surgery Digest, Springer 2009  
 Zeman M., Krška Z. a kolektív: Chirurgická propedeutika tretie doplnené a prepracované vydanie 2013, Praha Grada 2013 (512 strán)

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 1621

ABS0

100,0

**Lecturers:** Dr.h.c. prof. MUDr. Štefan Durdík, PhD.

**Last change:** 31.05.2024

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH



## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ChK1/L-S-VL-021/25	<b>Course title:</b> Surgery 1
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 40s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ChK1/L-S-VL-026/18 - Surgical Propedeutics	
<b>Course requirements:</b> - 100% attendance at the practicals	
<b>Learning outcomes:</b> <b>Knowledge:</b> Theoretical knowledge of benign and malignant diseases of the esophagus and stomach. Hernias in children and adults. Diagnostic and therapeutic features of acute abdomen (classification, symptoms, examination methods, treatment) in adults and children. Surgical diseases of the venous and lymphatic system, peripheral and arterial system. Pancreatitis diagnostics, classification, diagnosis, treatment. <b>Skills:</b> Examination and diagnostics of acute abdomen, therapeutic suggestions, scrubbing-in during surgeries. Diagnostic procedures and laparoscopic skill on the trainer. Simulation workplace.	
<b>Class syllabus:</b> Surgical diseases of esophagus. Gastric tumours. Appendicitis. Acute peritonitis. Ileus. Acute abdomen in childhood. Pancreatitis. Surgical diseases of the venous and lymphatic system. Surgical diseases of the arterial system. Injuries of bones and joints of the upper and lower limbs. Spinal injury. Hernias.	
<b>Recommended literature:</b> Breza, J a kol.: Princípy chirurgie, Slovak Academic Press, 2016, 4.diel série Cameron, J.: Current Surgical Therapy. 8th ed. London: Churchill Livingstone, 2004, Coran G. Arnold at all.: Pediatric Surgery, Vol. 1, 2, Elsevier 2012, Černý, J. (ed.): Chirurgia tráviacej rúry. 4 zv. Martin: Osveta, 1988 Černý, J. (ed.): Špeciálna chirurgia 2. Chirurgia brušných orgánov a retroperitonea, Martin: Osveta, 1992 Černý, J. (ed.): Špeciálna chirurgia. 4 zv. Martin: Osveta, 1988-1995. Durdík, Š.: Vybrané kapitoly z onkologickej chirurgie. Bratislava: WillArt, 2009, 304s. Ferko, A., Vobořil, Z. (ed.): Chirurgie v kostce. Praha: Grada, 2002. 596 s. Ferko, A., Šubrt, Z.: Chirurgie v kostce, Praha: Grada, 2015 512 s.	

Haruštiak, S. a kol.: Princípy chirurgie, Slovak Academic Press, 2010, 2.diel série  
 Huťan M. a kol.: Základy všeobecnej a špeciálnej chirurgie. Bratislava UK2012 (198 s.)  
 Kaušitz, J. a kol.: Onkológia. VEDA, 663 s.  
 Kaušitz, J. a kol.: Špeciálna onkológia. Solen, 2020 692 s.  
 Kirk, R.M.: General Surgical Operations. 5th ed. London: Churchill Livingstone, 2006  
 Marek, V., Durdík, Š.: Akútna apendicitída – Včasná diagnostika a predoperačná rozvaha, 2021, 120s.  
 Olejník, J. (ed.): Perioperačný manuál chirurga. Bratislava: Ebner, 2002, 388 s.  
 Olejník, J. (ed.): Akútna pankreatitída. Bratislava: Ebner, 2002, 68 s.  
 Pechan, J.: Princípy chirurgie, PRIMA –PRINT, 2013, 3.diel série  
 Pokorný V. a kol.: Traumatológia. 1.vyd. 2012 Praha Triton (307 st.)  
 Sabiston Textbook of Surgery 20th Edition, Elsevier 2016  
 Siman, J. a kol.: Princípy chirurgie, Slovak Academic Press, 2007, 1.diel série  
 Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série A  
 Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série B  
 Škultéty, J. : Špeciálna chirurgia I., Univerzita Komenského v Bratislave, 2014  
 Štencl, J., Holéczy, P.: Základné laparoskopické operácie v chirurgii. Martin: Osveta, 2001. 131 s.  
 Vidiščák, M. a kol.: Novorodenecká chirurgia I, M-Servis 2008  
 Vrtík, L. a kol.: Základy chirurgie, Univerzita Komenského v Bratislave, 2019  
 Way, L.W. (ed.): Současná chirurgická diagnostika a léčba. Praha: Grada, 2000, 1660 s.  
 Zacharias Zachariou: Pediatric Surgery Digest, Springer 2009  
 Zeman M., Krška Z. a kolektív: Chirurgická propedeutika tretie doplnené a prepracované vydanie 2013, Praha Grada 2013 (512 strán)

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Peter Labaš, CSc., doc. MUDr. Milan Schnorrer, CSc., MUDr. Boris Hrbatý, PhD., MUDr. Richard Reis, PhD., MUDr. Milan Oravský, PhD., Dr.h.c. prof. MUDr. Štefan Durdík, PhD., prof. MUDr. Mgr. Marian Vidiščák, PhD., MPH, doc. MUDr. Ľudovít Danihel, PhD., doc. MUDr. Marek Čambal, PhD.

**Last change:** 21.01.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ChK1/L-S-VL-022/25	<b>Course title:</b> Surgery 2
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 30s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPA/L-S-VL-055/18 - Pathological Anatomy 2 and LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> - 100% attendance at the practicals	
<b>Learning outcomes:</b> Knowledge: Theoretical knowledge of surgical diseases of the liver and bile tree, tumours of the liver and bile tree, differential diagnosis of these diseases. Benign and malignant surgical diseases of the small intestine, colon and rectum. Surgical diseases of the thyroid gland and parathyroid glands. Cancers of the breast, adrenal glands. Surgical diseases in childhood, including birth defects, their diagnosis and treatment. Surgical diseases of the lungs, bronchi and mediastinum. Theoretical knowledge of heart and large vessels surgery, organ transplantations. Skills: In the treatment of organ diseases of surgical origin, take an indicative point and assistance in these surgical procedures. Laparoscopic simulator. Diagnostic procedures and laparoscopic skill on the trainer. Simulation workplace.	
<b>Class syllabus:</b> Surgical disease of the liver and bile tree. Liver and biliary tract tumours. Pancreatic tumours. Small bowel, large bowel and rectal surgical diseases. Colorectal cancer. Surgical diseases of the thyroid gland and parathyroid glands. Bronchial and lung surgical diseases. Mediastinal diseases. Congenital diseases in childhood. Surgical diseases in childhood. Cardiac and intrathoracic large vessel surgery. Organ transplantation. Urgent surgical procedures.	
<b>Recommended literature:</b> Breza, J a kol.: Princípy chirurgie, Slovak Academic Press, 2016, 4.diel série Cameron, J.: Current Surgical Therapy. 8th ed. London: Churchill Livingstone, 2004, Coran G. Arnold at all.: Pediatric Surgery, Vol. 1, 2, Elsevier 2012, Černý, J. (ed.): Chirurgia tráviacej rúry. 4 zv. Martin: Osveta, 1988 Černý, J. (ed.): Špeciálna chirurgia 2. Chirurgia brušných orgánov a retroperitonea, Martin: Osveta, 1992 Černý, J. (ed.): Špeciálna chirurgia. 4 zv. Martin: Osveta, 1988-1995.	

Durdík, Š.: Vybrané kapitoly z onkologickej chirurgie. Bratislava: WillArt, 2009, 304s.  
 Ferko, A., Vobořil, Z. (ed.): Chirurgie v kostce. Praha: Grada, 2002. 596 s.  
 Ferko, A., Šubrt, Z.: Chirurgie v kostce, Praha: Grada, 2015 512 s.  
 Haruštiak, S. a kol.: Princípy chirurgie, Slovak Academic Press, 2010, 2.diel série  
 Huťan M. a kol.: Základy všeobecnej a špeciálnej chirurgie. Bratislava UK2012 (198 s.)  
 Kaušitz, J. a kol.: Onkológia. VEDA, 663 s.  
 Kaušitz, J. a kol.: Špeciálna onkológia. Solen, 2020 692 s.  
 Kirk, R.M.: General Surgical Operations. 5th ed. London: Churchill Livingstone, 2006  
 Marek, V., Durdík, Š.: Akútna apendicitída – Včasná diagnostika a predoperačná rozvaha, 2021, 120s.  
 Olejník, J. (ed.): Perioperačný manuál chirurga. Bratislava: Ebner, 2002, 388 s.  
 Olejník, J. (ed.): Akútna pankreatitída. Bratislava: Ebner, 2002, 68 s.  
 Pechan, J.: Princípy chirurgie, PRIMA –PRINT, 2013, 3.diel série  
 Pokorný V. a kol.: Traumatológia. 1.vyd. 2012 Praha Triton (307 st.)  
 Sabiston Textbook of Surgery 20th Edition, Elsevier 2016  
 Siman, J. a kol.: Princípy chirurgie, Slovak Academic Press, 2007, 1.diel série  
 Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série A  
 Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série B  
 Škultéty, J. : Špeciálna chirurgia I., Univerzita Komenského v Bratislave, 2014  
 Štencl, J., Holéczy, P.: Základné laparoskopické operácie v chirurgii. Martin: Osveta, 2001. 131 s.  
 Vidiščák, M. a kol.: Novorodenecká chirurgia I, M-Servis 2008  
 Vrtík, L. a kol.: Základy chirurgie, Univerzita Komenského v Bratislave, 2019  
 Way, L.W. (ed.): Současná chirurgická diagnostika a léčba. Praha: Grada, 2000, 1660 s.  
 Zacharias Zachariou: Pediatric Surgery Digest, Springer 2009  
 Zeman M., Krška Z. a kolektív: Chirurgická propedeutika tretie doplnené a prepracované vydanie 2013, Praha Grada 2013 (512 strán)

**Languages necessary to complete the course:**

slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Peter Labaš, CSc., doc. MUDr. Milan Schnorrer, CSc., MUDr. Boris Hrbatý, PhD., MUDr. Milan Oravský, PhD., MUDr. Richard Reis, PhD., Dr.h.c. prof. MUDr. Štefan Durdík, PhD., prof. MUDr. Mgr. Marian Vidiščák, PhD., MPH, doc. MUDr. Ľudovít Danihel, PhD., doc. MUDr. Marek Čambal, PhD.

**Last change:** 21.01.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KOCh/L-S-VL-023/25	<b>Course title:</b> Surgery 3
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ChK1/L-S-VL-022/19 - Surgery 2 or LF.ChK1/L-S-VL-022/25 - Surgery 2 and LF.NK1/L-S-VL-047/19 - Neurology 1 or LF.NK1/L-S-VL-047/25 - Neurology 1	
<b>Course requirements:</b> - 100% attendance at the practicals	
<b>Learning outcomes:</b> <b>Knowledge:</b> After completing the course, the student will gain theoretical knowledge of pathophysiology, diagnosis and treatment of diseases and injuries in orthopedics-traumatology, pediatric surgery and plastic surgery. He will be acquainted with the procedures of surgical procedures in orthopedics-traumatology, pediatric surgery and plastic surgery and with the principles of alternative treatment methods, the basics of assessment and incapacity for work. <b>Skills:</b> He will master the indication criteria for acute surgical diseases and injuries of the brain, spine, spinal cord and peripheral nerves, he will gain practical experience as an assistant in lumbar puncture, he will master the principle of craniotomy, decompression. He will gain skill in catheterization, a permanent catheter in men and women, he will master the indications and basics of epicystostomy and intravenous urography. Diagnostic procedures and laparoscopic skill on the trainer. Simulation workplace.	
<b>Class syllabus:</b> Classification of tumors of the nervous system. Neuroradiodiagnostics of brain tumors (magnetic resonance imaging, extended magnetic resonance imaging, functional magnetic resonance imaging, MR tractography - diffusion tensor imaging, positron emission tomography). Surgical and adjuvant treatment of brain tumors. Open and closed head injuries. Skull base injuries. Posttraumatic intracranial hemorrhage, pathophysiology, clinical manifestations and diagnostics. Indications and technique of surgical procedures for craniocerebral injuries. Pathophysiology, clinical manifestations, diagnosis and treatment of injuries of the spine, spinal cord and spinal nerves. Vascular diseases of the brain, pathophysiology, diagnostics and principles of treatment (cerebral artery aneurysms, arteriovenous malformations of the brain, cavernous malformations. Principles of microsurgical, endovascular and radiosurgical treatment). Diagnosis and treatment of degenerative diseases of the cervical and lumbosacral spine. Surgical treatment of congenital diseases of the nervous system, skull and spine. Hydrocephalus, pathophysiology, clinical manifestations and	

surgical treatment. Inflammatory diseases in neurosurgery. Characteristics of stereotactic surgical technique, and functional stereotaxy (biopsy, abscess evacuation), functional neurosurgery (surgical treatment of pain, movement disorders and epilepsy). Oncology, prostate diseases, male infertility, erectile dysfunction, acute and chronic renal insufficiency, urolithiasis, acute conditions in urology.

**Recommended literature:**

Breza a spol.: Všeobecná a špeciálna urológia II. vydanie, Bratislava UK 2010  
Breza, J a kol.: Princípy chirurgie, Slovak Academic Press, 2016, 4.diel série  
Cameron, J.: Current Surgical Therapy. 8th ed. London: Churchill Livingstone, 2004,  
Coran G. Arnold at all.: Pediatric Surgery, Vol. 1, 2, Elsevier 2012,  
Černý, J. (ed.): Chirurgia tráviacej rúry. 4 zv. Martin: Osveta, 1988  
Černý, J. (ed.): Špeciálna chirurgia 2. Chirurgia brušných orgánov a retroperitonea, Martin: Osveta, 1992  
Černý, J. (ed.): Špeciálna chirurgia. 4 zv. Martin: Osveta, 1988-1995.  
Durdík, Š.: Vybrané kapitoly z onkologickej chirurgie. Bratislava: WillArt, 2009, 304s.  
Ferko, A., Vobořil, Z. (ed.): Chirurgie v kostce. Praha: Grada, 2002. 596 s.  
Ferko, A., Šubrt, Z.: Chirurgie v kostce, Praha: Grada, 2015 512 s.  
Haruštiak, S a kol.: Princípy chirurgie – kapitola 6- Neurochirurgia, Slovak Academic Press, 2010  
Huťan M. a kol.: Základy všeobecnej a špeciálnej chirurgie. Bratislava UK2012 (198 s.)  
Kaušitz, J. a kol.: Onkológia. VEDA, 663 s.  
Kaušitz, J. a kol.: Špeciálna onkológia. Solen, 2020 692 s.  
Kirk, R.M.: General Surgical Operations. 5th ed. London: Churchill Livingstone, 2006  
Marek, V., Durdík, Š.: Akútna apendicitída – Včasná diagnostika a predoperačná rozvaha, 2021, 120s.  
Ohrádka, B a kol.: Špeciálna Chirurgia I, Univerzita Komenského v Bratislave, 2001  
Ohrádka, B a kol.: Špeciálna Chirurgia II, Univerzita Komenského v Bratislave, 2002  
Olejník, J. (ed.): Perioperačný manuál chirurga. Bratislava: Ebner, 2002, 388 s.  
Olejník, J. (ed.): Akútna pankreatitída. Bratislava: Ebner, 2002, 68 s.  
Pechan, J.: Princípy chirurgie, PRIMA –PRINT, 2013, 3.diel série  
Pokorný V. a kol.: Traumatológia. 1.vyd. 2012 Praha Triton (307 st.)  
Sabiston Textbook of Surgery 20th Edition, Elsevier 2016  
Šiman, J. a kol.: Princípy chirurgie, Slovak Academic Press, 2007, 1.diel série  
Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série A  
Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série B  
Škultéty, J. : Špeciálna chirurgia I., Univerzita Komenského v Bratislave, 2014  
Štencl, J., Holéczy, P.: Základné laparoskopické operácie v chirurgii. Martin: Osveta, 2001. 131 s.  
Šteňo J.: Neurochirurgia, s. 3-40. In: Ohrádka B. a kol.: Špeciálna chirurgia I. , 2. preprac. vyd. Bratislava: Univerzita Komenského, 2001, 201 s. ISBN 80-223-1620-2.  
Šteňo J.: Neurochirurgia, s. 5-298 In: Haruštiak S., ed. Princípy chirurgie II. Bratislava: SAP, 2010, 848 s. ISBN 978-80-8095-053-8  
Vidiščák, M. a kol.: Novorodenecká chirurgia I, M-Servis 2008  
Vrtík, L. a kol.: Základy chirurgie, Univerzita Komenského v Bratislave, 2019  
Way, L.W. (ed.): Současná chirurgická diagnostika a léčba. Praha: Grada, 2000, 1660 s.  
Zacharias Zachariou: Pediatric Surgery Digest, Springer 2009  
Zeman M., Krška Z. a kolektív: Chirurgická propedeutika tretie doplnené a prepracované vydanie 2013, Praha Grada 2013 (512 strán)

**Languages necessary to complete the course:**

slovak

<b>Notes:</b>						
<b>Past grade distribution</b>						
Total number of evaluated students: 0						
A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> Dr.h.c. prof. MUDr. Štefan Durdík, PhD., prof. MUDr. Juraj Šteňo, DrSc., doc. MUDr. Ing. Ján Breza, PhD., prof. MUDr. Viktor Matejčík, CSc., doc. MUDr. Andrej Šteňo, PhD., MPH, MUDr. Andrej Švec, PhD., MPH, MUDr. Martin Novotný, PhD.						
<b>Last change:</b> 23.01.2025						
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH						

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.OK/L-S-VL-024/25	<b>Course title:</b> Surgery 4
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 29s / 25s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 100% attendance at the practicals - theoretical exam: 2 question Exam evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> Knowledge: Basics of plastic surgery and hand surgery. Surgical diseases in childhood. Basic theoretical information about diseases of the musculoskeletal system, orthopedic treatment of congenital and acquired diseases, management of trauma patients in its entirety, basics of systemic and inflammatory diseases of the skeleton in children and adults. Skills: Mastering the examination and medical record of the patient in orthopedics, traumatology and plastic surgery. Mastering the examination of pediatric, orthopedic and trauma patients. Gaining skills in the evaluation of native X-ray and USG examination as well as interpretation of the results of gamma, CT, MRI, PET examinations. Practical mastery of knee joint puncture and control of ankle, shoulder and lumbar joint puncture procedures. Oncoorthopedics, mastering diagnostic procedures in the examination of patients (staging and grading of tumors). Coping with patch and transskeletal extension. Mastering diagnostic procedures in the examination of traumatic and osteoporotic patients. Obtaining procedures for reduction of dislocation of the shoulder, ankle, knee and elbow. Mastering the algorithm of examinations in inflammatory diseases of the skeleton. Diagnostic procedures and laparoscopic skill on the trainer. Simulation workplace.	
<b>Class syllabus:</b> Basics of plastic and reconstructive surgery and hand surgery. Fractures and dislocations of the upper limb, spinal injuries, pelvic fractures, fractures and dislocations of the lower limb, polytraumas, injuries of tendons, blood vessels and nerves of the hand, surgical treatment of lossal injuries, treatment of burns, skin transplants and lobes, patient principles of orthopedic treatment. Musculoskeletal traumatology, rehabilitation. Systemic skeletal diseases and vascular necrosis, bone tumors and tumors of the soft parts of the limbs and spine. Orthopedic problems	



with muscle diseases, arthropathy, inflammatory, bone and joint diseases. Degenerative diseases, pediatric orthopedics. Congenital abdominal events, thoracic and vascular surgery in childhood, hepatoportal surgery in childhood, scoliosis, disease pertes, dressing technique in traumatology and plastic surgery

**Recommended literature:**

Pokorný V. a kol.: Traumatológia 1. vydanie, 2012, Praha Triton 307 s.

Vojtaššák J., Traumatológia, Bratislava SAP, 2004, 364 s.

Sukop A. a kol.: Akútní poranení ruky. Praha, Galén 2013 192 s.

Veselý J. a kol.: Plastická chirurgia pro lékařské fakulty a postgraduální výchovu. LF MU Brno, 2007, 136 s.

Grabb and Smiths: Plastic Surgery, 7th edition, Lippincott Williams Wilkins, 2013, 976 s.

Šnajdant J., Škába R. a kol.: Dětská chirurgie, Galen, Praha 2005

Havránek P. a kol.: Dětské zlomeniny, Galen, Praha 2010

Rovenský, J. a kol. Reumatológia v teórii a praxi. VI. Martin: Osveta, 2004. 1124 s. ISBN 80-8063-163-8

Makai, F., Kokavec, M. Historický pohľad na vznik a rozvoj ortopédie a traumatológie. Bratislava: Herba,s.r.o., 2004. 108 s.

Dungl, P. a kol. Ortopedie. Praha: Grada, 2005. 1273 s. ISBN 80-247-050-8

Rudinsky, B. Spinálna chirurgia, SAP Bratislava 2006, 313 strán, ISBN 80-89104-76-2

Rehák L. Spondylochirurgia, Bratislava 2007. In Siman J. a kol. Princípy chirurgie

Kokavec, M. a kol.: Vybrané kapitoly z detskej ortopédie časť I. a II., SZU 2003

Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série B

**Languages necessary to complete the course:**

slovak

**Notes:****Past grade distribution**

Total number of evaluated students: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** Dr.h.c. prof. MUDr. Štefan Durdík, PhD., prof. MUDr. Milan Kokavec, PhD., MPH, doc. MUDr. Jozef Babala, PhD., doc. MUDr. Jozef Fedeleš, CSc., prof. MUDr. Boris Šteňo, PhD., doc. MUDr. Ján Trnka, CSc., MUDr. Drahomír Palenčár, PhD., MUDr. Andrej Švec, PhD., MPH, prof. MUDr. Peter Labaš, CSc., doc. MUDr. Ľudovít Danihel, PhD., doc. MUDr. Milan Schnorrer, CSc., prof. MUDr. Mgr. Marian Vidiščák, PhD., MPH, doc. MUDr. Marek Čambal, PhD., doc. MUDr. Róbert Králik, PhD., MUDr. Martin Dubovský, PhD., MUDr. Marianna Hajská, PhD., MUDr. Alexander Mayer, PhD., MPH, MHA, MUDr. Arpád Panyko, PhD.

**Last change:** 19.03.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KOCh/L-S-VL-025/25	<b>Course title:</b> Surgery 5
<b>Educational activities:</b> <b>Type of activities:</b> seminar / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 40s / 160s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 13	
<b>Recommended semester:</b> 11., 12..	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.OK/L-S-VL-096/22 - Surgery 4 or LF.OK/L-S-VL-024/25 - Surgery 4	
<b>Course requirements:</b> One-hundred percent participation in internships and seminars. Practical exam (examination of a surgical patient, processing of a medical record, 2 questions from surgery). Final test in surgical disciplines. State exam - 3 theoretical questions.	
<b>Learning outcomes:</b> Knowledge: Comprehensive theoretical knowledge of surgical disciplines, mastering the differential diagnosis of surgical diseases. Skills: Comprehensive examination of the patient with differential diagnostics and patient treatment proposal. Ability to perform minor surgery and the ability to assist in surgical procedures. Master the indication criteria for surgical diseases. Diagnostic procedures and laparoscopic skill on the trainer. Simulation workplace.	
<b>Class syllabus:</b> As part of block teaching, work in departments, outpatient clinics and operating theaters of individual surgical clinics in the classification as a junior secondary doctor, participation in visits and seminars of clinics, assistance in operations, performing minor diagnostic and therapeutic procedures. The seminars will be devoted to the following topics: Organ transplants. Extensive liver resections. Intensive treatment in surgery. Surgical diseases of the esophagus, stomach, duodenum, small intestine, colon and rectum. Lung and mediastinal surgical diseases. Chest injuries. Surgical diseases and injuries in childhood. Comprehensive care for burns. Plastic surgery consultations. Ileus and peritonitis. Orthopedics consultations. Current trends in oncosurgery. Surgery of the liver, bile ducts and pancreas. Conservative and surgical treatment of fractures. Neurosurgery consultations. Urology consultations. Vascular surgery consultations. Shock, splitting and treatment. Circulatory and respiratory resuscitation. Principles of treatment of water and electrolyte turnover and acid-base balance in surgery.	
<b>Recommended literature:</b> Breza a spol.: Všeobecná a špeciálna urológia II. vydanie, Bratislava UK 2010 Breza, J a kol.: Princípy chirurgie, Slovak Academic Press, 2016, 4.diel série	

Cameron, J.: Current Surgical Therapy. 8th ed. London: Churchill Livingstone, 2004,  
 Coran G. Arnold at all.: Pediatric Surgery, Vol. 1, 2, Elsevier 2012,  
 Černý, J. (ed.): Chirurgia tráviacej rúry. 4 zv. Martin: Osveta, 1988  
 Černý, J. (ed.): Špeciálna chirurgia 2. Chirurgia brušných orgánov a retroperitonea, Martin: Osveta, 1992  
 Černý, J. (ed.): Špeciálna chirurgia. 4 zv. Martin: Osveta, 1988-1995.  
 Durdík, Š.: Vybrané kapitoly z onkologickej chirurgie. Bratislava: WillArt, 2009, 304s.  
 Ferko, A., Vobořil, Z. (ed.): Chirurgie v kostce. Praha: Grada, 2002. 596 s.  
 Ferko, A., Šubrt, Z.: Chirurgie v kostce, Praha: Grada, 2015 512 s.  
 Huťan M. a kol.: Základy všeobecnej a špeciálnej chirurgie. Bratislava UK2012 (198 s.)  
 Kaušitz, J. a kol.: Onkológia. VEDA, 663 s.  
 Kaušitz, J. a kol.: Špeciálna onkológia. Solen, 2020 692 s.  
 Kirk, R.M.: General Surgical Operations. 5th ed. London: Churchill Livingstone, 2006  
 Marek, V., Durdík, Š.: Akútna apendicitída – Včasná diagnostika a predoperačná rozvaha, 2021, 120s.  
 Olejník, J. (ed.): Perioperačný manuál chirurga. Bratislava: Ebner, 2002, 388 s.  
 Olejník, J. (ed.): Akútna pankreatitída. Bratislava: Ebner, 2002, 68 s.  
 Pechan, J.: Princípy chirurgie, PRIMA –PRINT, 2013, 3.diel série  
 Pokorný V. a kol.: Traumatológia. 1.vyd. 2012 Praha Triton (307 st.)  
 Sabiston Textbook of Surgery 20th Edition, Elsevier 2016  
 Siman, J. a kol.: Princípy chirurgie, Slovak Academic Press, 2007, 1.diel série  
 Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série A  
 Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série B  
 Škultéty, J. : Špeciálna chirurgia I., Univerzita Komenského v Bratislave, 2014  
 Štencl, J., Holéczy, P.: Základné laparoskopické operácie v chirurgii. Martin: Osveta, 2001. 131 s.  
 Šteňo J.: Neurochirurgia, s. 3-40. In: Ohrádka B. a kol.: Špeciálna chirurgia I. , 2. preprac. vyd. Bratislava: Univerzita Komenského, 2001, 201 s. ISBN 80-223-1620-2.  
 Šteňo J.: Neurochirurgia, s. 5-298 In: Haruštiak S., ed. Princípy chirurgie II. Bratislava: SAP, 2010, 848 s. ISBN 978-80-8095-053-8  
 Vidiščák, M. a kol.: Novorodenecká chirurgia I, M-Servis 2008  
 Vrtík, L. a kol.: Základy chirurgie, Univerzita Komenského v Bratislave, 2019  
 Way, L.W. (ed.): Současná chirurgická diagnostika a léčba. Praha: Grada, 2000, 1660 s.  
 Zacharias Zachariou: Pediatric Surgery Digest, Springer 2009  
 Zeman M., Krška Z. a kolektív: Chirurgická propedeutika tretie doplnené a prepracované vydanie 2013, Praha Grada 2013 (512 strán)

#### **Languages necessary to complete the course:**

slovak

#### **Notes:**

#### **Past grade distribution**

Total number of evaluated students: 0

A	ABS0	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** Dr.h.c. prof. MUDr. Štefan Durdík, PhD., prof. MUDr. Peter Labaš, CSc., prof. MUDr. Juraj Šteňo, DrSc., doc. MUDr. Andrej Šteňo, PhD., MPH, MUDr. Boris Hrbatý, PhD., MUDr. Milan Oravský, PhD., doc. MUDr. Milan Schnorrer, CSc., MUDr. Andrej Švec, PhD., MPH, MUDr. Martin Dubovský, PhD., prof. MUDr. Milan Kokavec, PhD., MPH, prof. MUDr.

Mgr. Marian Vidiščák, PhD., MPH, doc. MUDr. Marek Čambal, PhD., MUDr. Claudia Molnár Ducková, doc. MUDr. Peter Bukovčan, PhD.
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<b>Last change:</b> 21.01.2025
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<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH
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## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ChK1/L-S-VL-026/18	<b>Course title:</b> Surgical Propedeutics
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 30s / 40s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 4	
<b>Recommended semester:</b> 6.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.AÚ/L-S-VL-003/17 - Anatomy 3	
<b>Course requirements:</b> 100% attendance at the practicals Final exam: - theoretical exam: 3 question (general examination, special systems, laboratory test) Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> Theoretically master the examination of the surgical patient, master the principles of preoperative preparation and postoperative care of the surgical patient. To control the internal environment, metabolism, principles of parenteral and enteral nutrition of the operated patient. Know infusion solutions, replacement solutions, blood derivatives. Theoretically manage infection in surgery, incidence, causes and basics of treatment. Master the indications of examination methods (instrumental, USG, X-ray, CT, MRI) in vascular surgery, urology, traumatology, pediatric surgery, thoracic surgery, neurotraumatology. Theoretically control shock, hypovolemic, traumatic, septic, burn. To control the division of wounds, the division of fractures, injuries of blood vessels, nerves, injuries of the intra-abdominal, thoracic, retroperitoneal organs, injuries of the skull. Master the basics of transplant surgery, know the differences in the diagnosis and treatment of children and adults. <b>Skills:</b> Examine the surgical patient, determine the diagnosis with the help of examination methods and clinical examination. Prescribe parenteral and enteral nutrition. Give transfusions and blood derivatives, handle small surgical procedures - wound suturing, incision of abscesses, phlegmon, removal of skin lesions. Treat minor traumas - dressing, plastering, splints, orthoses. Master venepuncture and tracheostomy, chest puncture, joint puncture. Manage shock design measures and treatment of shock. Examination of the surgical patient and mastering the diagnostics in surgery. Basics of trauma surgery. Diagnostic procedures and laparoscopic skill on the trainer. Simulation workplace	

**Class syllabus:**

Examination of the surgical patient and preparation for surgery. Surgical procedure, technique, indications, urgent procedures in surgery, asepsis and antisepsis, sterilization. Preoperative and postoperative care of the surgical patient. Surgical infections, anaerobic and specific infections, panaritium, nosocomial infections. Antibiotic therapy in surgery. Disruption of the internal environment, parenteral and enteral nutrition, alternative solutions, transfusions. Wound division and treatment. Fracture distribution. Bone injuries, distortions, dislocations, muscle and tendon injuries. Examination methods in vascular surgery and peripheral vascular injuries. Amputations. Injuries to the abdomen and intra-abdominal organs. Examination methods in urology and urinary tract injuries. Preoperative and postoperative care for children. The difference between injuries in children and adults, biological differences, treatment procedures. Bleeding in surgery, examination methods in bleeding, hypovolemic shock, septic shock. Heat injuries, electric burns, frostbite, sunburn, sunburn. Chest injuries, spinal cord and peripheral nerve injuries, head injuries. Basics of transplant surgery.

**Recommended literature:**

Breza, J a kol.: Princípy chirurgie, Slovak Academic Press, 2016, 4.diel série  
Cameron, J.: Current Surgical Therapy. 8th ed. London: Churchill Livingstone, 2004,  
Coran G. Arnold at all.: Pediatric Surgery, Vol. 1, 2, Elsevier 2012,  
Černý, J. (ed.): Chirurgia tráviacej rúry. 4 zv. Martin: Osveta, 1988  
Černý, J. (ed.): Špeciálna chirurgia 2. Chirurgia brušných orgánov a retroperitonea, Martin: Osveta, 1992  
Černý, J. (ed.): Špeciálna chirurgia. 4 zv. Martin: Osveta, 1988-1995.  
Durdík, Š.: Vybrané kapitoly z onkologickej chirurgie. Bratislava: WillArt, 2009, 304s.  
Ferko, A., Vobořil, Z. (ed.): Chirurgie v kostce. Praha: Grada, 2002. 596 s.  
Ferko, A., Šubrt, Z.: Chirurgie v kostce, Praha: Grada, 2015 512 s.  
Haruštiak, S. a kol.: Princípy chirurgie, Slovak Academic Press, 2010, 2.diel série  
Huťan M. a kol.: Základy všeobecnej a špeciálnej chirurgie. Bratislava UK2012 (198 s.)  
Kaušitz, J. a kol.: Onkológia. VEDA, 663 s.  
Kaušitz, J. a kol.: Špeciálna onkológia. Solen, 2020 692 s.  
Kirk, R.M.: General Surgical Operations. 5th ed. London: Churchill Livingstone, 2006  
Marek, V., Durdík, Š.: Akútna apendicitída – Včasná diagnostika a predoperačná rozvaha, 2021, 120s.  
Olejník, J. (ed.): Perioperačný manuál chirurga. Bratislava: Ebner, 2002, 388 s.  
Olejník, J. (ed.): Akútna pankreatitída. Bratislava: Ebner, 2002, 68 s.  
Pechan, J.: Princípy chirurgie, PRIMA –PRINT, 2013, 3.diel série  
Pokorný V. a kol.: Traumatológia. 1.vyd. 2012 Praha Triton (307 st.)  
Sabiston Textbook of Surgery 20th Edition, Elsevier 2016  
Siman, J. a kol.: Princípy chirurgie, Slovak Academic Press, 2007, 1.diel série  
Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série A  
Šimko, P. a kol.: Princípy chirurgie, PRIMA –PRINT, 2019, 5.diel série B  
Škultéty, J. : Špeciálna chirurgia I., Univerzita Komenského v Bratislave, 2014  
Štencl, J., Holéczy, P.: Základné laparoskopické operácie v chirurgii. Martin: Osveta, 2001. 131 s.  
Vidiščák, M. a kol.: Novorodenecká chirurgia I, M-Servis 2008  
Vrtík, L. a kol.: Základy chirurgie, Univerzita Komenského v Bratislave, 2019  
Way, L.W. (ed.): Současná chirurgická diagnostika a léčba. Praha: Grada, 2000, 1660 s.  
Zacharias Zachariou: Pediatric Surgery Digest, Springer 2009  
Zeman M., Krška Z. a kolektív: Chirurgická propedeutika tretie doplnené a prepracované vydanie 2013, Praha Grada 2013 (512 strán)

<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 2102					
A	B	C	D	E	FX
75,78	14,75	5,57	2,38	1,14	0,38
<b>Lecturers:</b> prof. MUDr. Peter Labaš, CSc., doc. MUDr. Milan Schnorrer, CSc., MUDr. Boris Hrbatý, PhD., MUDr. Milan Oravský, PhD., MUDr. Richard Reis, PhD., MUDr. Alexander Škoda, MPH, PhD., Dr.h.c. prof. MUDr. Štefan Durdík, PhD., doc. MUDr. Jozef Babala, PhD., doc. MUDr. Ľudovít Danihel, PhD., prof. MUDr. Mgr. Marian Vidišček, PhD., MPH, doc. MUDr. Marek Čambal, PhD., doc. MUDr. Róbert Králik, PhD., MUDr. Martin Dubovský, PhD., MUDr. Marianna Hajská, PhD., MUDr. Alexander Mayer, PhD., MPH, MHA, MUDr. Arpád Panyko, PhD.					
<b>Last change:</b> 30.05.2024					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚFKF/L-S-VL-172-4/21	<b>Course title:</b> The Application of Medical Devices in Patient Therapy
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week: per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% participation on the practical exercises Oral examination – combination of 3 questions Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 – 0 % The final mark of the semester is determined from the average of received scores.	
<b>Learning outcomes:</b> Knowledge: The graduate will learn about the clinical use and application of medical devices, legislation, registration and practical application. Practical training will ensure that current information of the using medical devices Skills: All available types and kinds of medical devices are practically demonstrated, explaining the primary difference and use of medical devices	
<b>Class syllabus:</b> regulation of medical devices, registration of medical devices and European legislation, prescription of medical devices, tables of limits, medication and indication, individual types of medical devices and their pharmacotherapeutic ability, orthopaedic medical devices, audio medical devices, covering medical aids, wet therapy, epitheses, ostomy medical devices, incontinence devices	
<b>Recommended literature:</b> Zdravotnícke pomôcky, Legislatíva a regulácia. Daniela Mináriková, Viliam Foltán, Ivona Malovecká, VYDAVATEĽSTVO Osveta, 2015, Materiály poskytnuté počas výuky	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	



<b>Past grade distribution</b>					
Total number of evaluated students: 56					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. PharmDr. Andrea Gažová, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚFKF/L-S-VL-172-5/21	<b>Course title:</b> The Application of Medical Devices in Patient Therapy
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 100% participation on the practical exercises Oral examination – combination of 3 questions Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 – 0 % The final mark of the semester is determined from the average of received scores.	
<b>Learning outcomes:</b> Knowledge: The graduate will learn about the clinical use and application of medical devices, legislation, registration and practical application. Practical training will ensure that current information of the using medical devices Skills: All available types and kinds of medical devices are practically demonstrated, explaining the primary difference and use of medical devices	
<b>Class syllabus:</b> regulation of medical devices, registration of medical devices and European legislation, prescription of medical devices, tables of limits, medication and indication, individual types of medical devices and their pharmacotherapeutic ability, orthopaedic medical devices, audio medical devices, covering medical aids, wet therapy, epitheses, ostomy medical devices, incontinence devices	
<b>Recommended literature:</b> Zdravotnícke pomôcky, Legislatíva a regulácia. Daniela Mináriková, Viliam Foltán, Ivona Malovecká, VYDAVATEĽSTVO Osveta, 2015, Materiály poskytnuté počas výuky	
<b>Languages necessary to complete the course:</b> Slovak	
<b>Notes:</b>	

<b>Past grade distribution</b>					
Total number of evaluated students: 36					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. PharmDr. Andrea Gažová, PhD.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚPF/L-S-VL-144-4/19	<b>Course title:</b> The Most Important Syndromes in Pathophysiology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚPF/L-S-VL-057/18 - Pathological Physiology 2	
<b>Course requirements:</b> - 90% lecture attendance, - active participation in the lectures (oral answers), - passing the oral examination.	
<b>Learning outcomes:</b> <b>Knowledge:</b> The aim of the course is to provide students with a comprehensive view on the pathomechanisms of the most important syndromes that occur in everyday clinical practice such as: heart failure, reperfusion syndrome of the heart, stress response, endocrine dysfunctions, etc. The acquired knowledge would be a significant help in the study of virtually all clinical subjects. <b>Skills:</b> After completing the course, students should be able to perform pathophysiological analysis in various pathological conditions. - The student can actively interfere with theoretical and practical models of basic diseases and modify them by applying altered conditions as a result of therapeutic intervention, - the student can process the algorithm of the origin and development of basic diseases, - the student can integrate the knowledge from all theoretical disciplines in a comprehensive picture of the origin and development of pathologic conditions.	
<b>Class syllabus:</b> <b>Lectures:</b> Syndrome of heart failure and its treatment. General adaptation syndrome. Syndrome of pulmonary hypertension. Syndrome of acute cerebral ischemia. Medicine of evidence: hopes and disappointment. Philosophy of atherosclerosis and its risk factors. Elevated heart rate syndrome. Endothelial dysfunction syndrome. Syndrome of arterial hypertension and its consequences. Metabolic syndrome. Malignant disease syndrome. Syndrome of disturbed microcirculation and	

shock. Syndrome of vasculitis. Syndrome of general intravascular coagulation. Obesity syndrome. Risk factors of the cardiovascular system. Metabolic syndrome.					
<b>Recommended literature:</b> - Hulín, I. et al.: Patofyziológia. 10. vydanie. ProLitera, 2020, 720 s. ISBN 9788089668076. - Pávková Goldbergová, M. et al. Patofyziologie v obrazech. 1. vyd. Brno: Masarykova univerzita, Lékařská fakulta, 2016. 186 s. ISBN 978-80-210-8323-3. - Kiňová, S., Hulín, I., a kol. Interná medicína. Bratislava: ProLitera 2013;1136 s.					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 124					
A	B	C	D	E	FX
44,35	25,0	20,16	8,87	1,61	0,0
<b>Lecturers:</b> prof. MUDr. Fedor Šimko, CSc.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.ÚPF/L-S-VL-144-5/19	<b>Course title:</b> The Most Important Syndromes in Pathophysiology
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> - 90% lecture attendance, - active participation in the lectures (oral answers), - passing the oral examination.	
<b>Learning outcomes:</b> <b>Knowledge:</b> The aim of the course is to provide students with a comprehensive view on the pathomechanisms of the most important syndromes that occur in everyday clinical practice such as: heart failure, reperfusion syndrome of the heart, stress response, endocrine dysfunctions, etc. The acquired knowledge would be a significant help in the study of virtually all clinical subjects. <b>Skills:</b> After completing the course, students should be able to perform pathophysiological analysis in various pathological conditions. - The student can actively interfere with theoretical and practical models of basic diseases and modify them by applying altered conditions as a result of therapeutic intervention, - the student can process the algorithm of the origin and development of basic diseases, - the student can integrate the knowledge from all theoretical disciplines in a comprehensive picture of the origin and development of pathologic conditions.	
<b>Class syllabus:</b> <b>Lectures:</b> Syndrome of heart failure and its treatment. General adaptation syndrome. Syndrome of pulmonary hypertension. Syndrome of acute cerebral ischemia. Medicine of evidence: hopes and disappointment. Philosophy of atherosclerosis and its risk factors. Elevated heart rate syndrome. Endothelial dysfunction syndrome. Syndrome of arterial hypertension and its consequences. Metabolic syndrome. Malignant disease syndrome. Syndrome of disturbed microcirculation and	

shock. Syndrome of vasculitis. Syndrome of general intravascular coagulation. Obesity syndrome. Risk factors of the cardiovascular system. Metabolic syndrome.					
<b>Recommended literature:</b> - Hulín, I. et al.: Patofyziológia. 10. vydanie. ProLitera, 2020, 720 s. ISBN 9788089668076. - Pávková Goldbergová, M. et al. Patofyziologie v obrazech. 1. vyd. Brno: Masarykova univerzita, Lékařská fakulta, 2016. 186 s. ISBN 978-80-210-8323-3. - Kiňová, S., Hulín, I., a kol. Interná medicína. Bratislava: ProLitera 2013;1136 s.					
<b>Languages necessary to complete the course:</b> slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 5					
A	B	C	D	E	FX
60,0	0,0	20,0	20,0	0,0	0,0
<b>Lecturers:</b> prof. MUDr. Fedor Šimko, CSc.					
<b>Last change:</b> 16.05.2025					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KUVM/L-S-VL-067/20	<b>Course title:</b> Urgent Medicine
<b>Educational activities:</b> <b>Type of activities:</b> lecture / practicals <b>Number of hours:</b> <b>per week: per level/semester:</b> 12s / 12s <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.ÚFKF/L-S-VL-012/19 - Pharmacology 2	
<b>Course requirements:</b> 100% participation Practical extended CPR Written exam – test with minimum achievement of 60% Test evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less Final evaluation will be calculated as the average of achieved partial evaluations.	
<b>Learning outcomes:</b> <b>KNOWLEDGE:</b> Urgent medicine shall provide theoretical information on providing health care in life threatening situations in pre-hospital, as well as hospital stage of rescue chain. To define the medicine of disasters, mass accidents, special events. Ethical and legal issues in the care of critically ill patients. <b>SKILLS:</b> To handle advanced life support, securing access to airways via intubation, laryngeal mask, laryngeal tube. To handle intraosseal access to blood circulation, fractures stabilization, stopping a massive bleeding. Using of protective equipment against military attacks.	
<b>Class syllabus:</b> Diagnostics and differential diagnostics of the most serious conditions in pre-hospital care, treatment of serious injuries and transport management. Organization and practical realization of professional health care activities within urgent medicine and medicine of disasters. Integrated rescue system. Possible types of injuries and illnesses at disasters and mass accidents. Organization of IRS intervention in mass accidents, triage of patients and organization of transport to medical facilities. Traumatological plan of medical facilities. Terrorism - Individual and collective protection in the event of a terrorist attack. War medicine - the organization of health care during war and the system of providing health care in the event of an attack by weapons of mass destruction.	
<b>Recommended literature:</b> Masár, O. a kol.: Medicína katastrof pre medikov, Univerzita Komenského, 2013	



Masár, O. a kol.: Urgentná medicína pre medikov, Univerzita Komenského, 2013 Masár a kol.: Prvá pomoc pre medikov, Univerzita Komenského 2012 Šín a kol. Urgentní medicína, Galén 2023 Šín, R.: Medicína katastrof, Galén, Praha 2017 Málek, J., Knor, J.: Lékařská první pomoc v urgentních stavech. Grada, Praha 2022 Šeblová, J., Knor, J.: Urgentní medicína v klinické praxi lékaře. Grada, Praha, 2019					
<b>Languages necessary to complete the course:</b> Slovak					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 1449					
A	B	C	D	E	FX
13,73	49,48	31,88	4,35	0,41	0,14
<b>Lecturers:</b> prof. MUDr. Oto Masár, CSc., PhDr. Hana Belejová, PhD., PhDr. Dušan Sysel, PhD., MUDr. Teodor Bachleda, PhD., MBA, PhDr. Adrián Fabiny					
<b>Last change:</b> 30.05.2024					
<b>Approved by:</b> prof. MUDr. Juraj Payer, PhD., MPH					

## COURSE DESCRIPTION

<b>Academic year:</b> 2025/2026	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> LF.KAIM1/L-S-VL-147/19	<b>Course title:</b> Urgent support of vital functions
<b>Educational activities:</b> <b>Type of activities:</b> lecture <b>Number of hours:</b> <b>per week:</b> <b>per level/semester:</b> 24s <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> COS	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 10.	
<b>Educational level:</b> I.II.	
<b>Prerequisites:</b> LF.KAIM1/L-S-VL-005/19 - Anaesthesiology and Intensive Medicine 2	
<b>Course requirements:</b> - 100% attendance at the practicals - 1 written test (minimum 60% of correct answers) Final exam: - practical exam: Basic and Immediate Life Support with AED – teamwork. - theoretical exam: test and essay on a selected topic in resuscitation (LMS Moodle). Test evaluation: A: 91 - 100 %, B: 81 – 90 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % - 0%. The overall rating is determined from the average of the ratings obtained.	
<b>Learning outcomes:</b> <b>Knowledge:</b> Upon successful completion of the educational program, the student will gain knowledge and understand it in accordance with the global learning objectives of the course. Basic knowledge (applied physiology) for the treatment of patients with cardiac arrest (CA) - basic and advanced life support, basic principles of post-resuscitation care. CA in a medical facility – specific issues of resuscitation. Prevention of CA - identification and treatment of deteriorating patient condition (early warning system , MET – medical emergency teams), + ABCDE procedure. Technical and non-technical skills in cardiopulmonary resuscitation (CPR) - CPR effectiveness parameters, heart rhythms in CPR, defibrillation (automated external defibrillation - AED, manual defibrillation), CPR algorithms, principles of teamwork and interpersonal communication. <b>Skills:</b> Upon successful completion of this course, students will be able to solve: Early detection of CA risk, early recognition of cardiac arrest, aid activation, early CPR (Airway and ventilation, airway patency management, high quality CPR), early defibrillation, Using AED tips and tricks, i.v., i.o. Access, management of CPR pharmacotherapy, teamwork management. Ethical issues of CPR (do not resuscitate – DNR).	
<b>Class syllabus:</b>	

1. Cardiac arrest (CA) - ethiology, pathophysiological aspects, recognition, differ. diagnosis
2. CA in the context of health care - (CA outside the health facility, in the health facility , Basic, Immediate and Advanced life support, Chain of survival).
3. Technical and non-technical skills and quality of resuscitation.
4. Diagnosis of deteriorating patient condition and prevention of CA.
5. Acute coronary syndrome - initial management.
6. Acute stroke syndrome – initial management
7. Emergencies – tension pneumothorax, embolia art. Pulmonalis,
8. Resuscitation in the hospital, ambulance.
9. Heart rhythms in cardiac arrest.
10. Defibrillation. AED , manual defibrillator
11. Airway patency management, high quality CPR.
12. Advance Life Support (ALS) algorithms.
13. Post-resuscitation care.

**Recommended literature:**

Resuscitation (2021) 1–80: European Resuscitation Council Guidelines for Resuscitation 2021. (www.erc.edu).

Nové odporúčania ERC 2021 (www.srr.sk)

Anesteziologie a intenzivní medicína, ročník 32, rok 2021. Supplementum. Doporučené postupy pro resuscitaci 2021: Souhrn doporučení.

**Languages necessary to complete the course:**

Slovak

**Notes:**

**Past grade distribution**

Total number of evaluated students: 50

A	B	C	D	E	FX
84,0	16,0	0,0	0,0	0,0	0,0

**Lecturers:** MUDr. Karol Kálíg, CSc., doc. MUDr. Roman Záhorec, CSc., MUDr. Juraj Koutun, CSc.

**Last change:** 20.05.2025

**Approved by:** prof. MUDr. Juraj Payer, PhD., MPH