# **Course descriptions**

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University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF.KAIM1/L-S-VLa-004/19 Anaesthesiology and Intensive Medicine 1 **Educational activities:** Type of activities: lecture / practicals **Number of hours:** per week: per level/semester: 12s / 15s Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 7. **Educational level:** I.II. Prerequisites: LF. ÚPF/L-S-VLa-056/18 - Pathological Physiology 1, LF. IK 1/L-S-VLa-035/18 -Internal Propedeutics, LF. ChK1/L-S-VLa-026/18 - Surgical Propedeutics **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 236 В  $\mathbf{C}$ D E Α FX 34,32 38,56 18,22 8,05 0,85 0,0 Lecturers: doc. MUDr. Roman Záhorec, CSc., MUDr. Juraj Koutun, CSc.

Last change:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF.KAIM1/L-S-VLa-005/19 Anaesthesiology and Intensive Medicine 2 **Educational activities:** Type of activities: lecture / practicals **Number of hours:** per week: per level/semester: 12s / 15s Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 8. **Educational level:** I.II. Prerequisites: LF.KAIM1/L-S-VLa-004/19 - Anaesthesiology and Intensive Medicine 1 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 203 Α В  $\mathbf{C}$ D Е FX 42,36 41,38 12,32 1,48 2,46 0,0 Lecturers: doc. MUDr. Roman Záhorec, CSc., MUDr. Juraj Koutun, CSc. Last change:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.KAIM1/L-VLa-052/11 | Anaesthesiology and Intensive Medicine 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 15s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

**Prerequisites:** 

**Course requirements:** 

# **Learning outcomes:**

## Class syllabus:

Definition and Role of Intensive Care Medicine in Differentiated Medical Care, Relation to Urgent Pre - hospital and In - hospital Care. Basic Principles of Haemodynamics, Determinants of Cardiac Output.

Assessment of Hemodynamics and Interpretation of Basic Hemodynamic Parameters. Oxygen Transport, Monitoring and Interpretation of Oxygen Related Parameters. Mechanical Ventilation, Acute Respiratory Distress Syndrome (ARDS). Shock, MODS, Definitions, Basic of Therapy. Fluid - Elektrolyte Physiology and Basic Disorders, Acid - Base Balance. Nutrition in Intensive Care Medicine. Trauma and Intensive Care Medicine. Toxicology and Intensive Care Medicine. Selected Diseases in Several Medical Departments and Intensive Care Medicine (Surgery, Neurology, Obstetrics, Internal Medicine).

#### **Recommended literature:**

x Robert, K. Stoelting, Ronald D. Miller - Basics of Anesthesia

x Shoemaker, C. W. and al.: Pocket companion to Textbook of critical care.

## Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 757

A	В	С	D	Е	FX
42,67	34,87	15,32	5,94	1,19	0,0

**Lecturers:** doc. MUDr. Roman Záhorec, CSc., MUDr. Juraj Koutun, CSc., MUDr. Tomáš Hitka, MUDr. Marian Hargaš

Last change: 02.06.2015

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.AÚ/L-S-VLa-001/16 Anatomy 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

**per week: per level/semester:** 48s / 36s **Form of the course:** on-site learning

**Number of credits:** 8

**Recommended semester:** 1.

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

100% participation on the practical exercises

Passing 2 written tests with at least 60% from each

Test evaluation: A: 91 - 100 %, B: 81 - 90 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %, Fx: 59 - 0 % Final mark of the semester is determined from the average of received scores.

# **Learning outcomes:**

#### Knowledge:

- To be familiar with the architecture and structures of the human body (in general).
- Knowing different parts of the skeletal system and joints
- Studying structure of the organs of the alimentary, respiratory and urinary systems.

## Skills:

- To understand and handle the anatomical terminology
- Analyzing of the gained knowledge from the morphological and functional point of views.
- Practical usage of theoretical information in dissection.

#### Class syllabus:

Introduction into anatomy. General anatomy of bones, joints and muscles. Digestive system. Respiratory system. Urinary system. Genital system.

Planes and directions of the human body. Vertebrae, ribs, sternum. Joint of the vertebral column and thorax. Bones and joints of the upper limb. Bones and joints of the lower limb. The skull.

## **Recommended literature:**

Platzer, W. Color Atlas of Human Anatomy. Vol.1. Locomotor System. 6th rev ed. Stuttgart; New York: Georg Thieme Verlag, 2009. 480p. ISBN13 9783131494818

Fritsch, H., Kuehnel, W. Color Atlas of Human Anatomy. Vol. 2. Internal organs. 5th ed.

Stuttgart; New York: Georg Thieme Verlag, 2008. 458p. ISBN13 9781604065633

Kahle, W., Frotscher M. Color Atlas of Human Anatomy. Vol. 3. Nervous System and Sensory Organs. 6th ed. Stuttgart; New York: Georg Thieme Verlag, 2008. 426p. ISBN13 9783131536761 Netter, F. H. Atlas of Human Anatomy. 5th ed. Philadelphia: Saunders - Elsevier, 2010. 624p.

ISBN: 978-1-4160-5951-6

#### Languages necessary to complete the course:

Notes:		·			
Past grade distribution Total number of evaluated students: 969					
A	В	С	D	Е	FX
33,64	25,59	23,63	11,35	5,78	0,0

Lecturers: doc. MUDr. Eliška Kubíková, PhD., MPH, prof. MUDr. Peter Mráz, DrSc., doc. MUDr. Anna Holomáňová, CSc., doc. RNDr. Ladislav Guller, CSc., MUDr. Hisham El Falougy, PhD., MUDr. Zora Haviarová, PhD., RNDr. Petra Lukáčiková, PhD., MUDr. Petra Šelmeciová, PhD., RNDr. Melinda Takácsová, PhD., MUDr. Jana Jakimová, MUDr. Abdolreza Majidi, Mgr. Vladislava Zohdi, PhD., MUDr. Andrej Mifkovič, PhD., MUDr. Daniela Dovalová

**Last change:** 25.10.2016

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.AÚ/L-S-VLa-002/16 Anatomy 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 48s / 54s Form of the course: on-site learning

Number of credits: 10

**Recommended semester: 2.** 

**Educational level: I.II.** 

Prerequisites: LF.AÚ/L-S-VLa-001/16 - Anatomy 1

# **Course requirements:**

Course requirements:

100% participation on the practical exercises

Passing 2 written tests with at least 60% from each

Test evaluation: A: 91 - 100 %, B: 81 - 90 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 - 0 %

Practical examination From all structures, organs and spaces of thorax and abdomen Final mark of the semester is determined from the average of received scores.

# **Learning outcomes:**

Knowledge:

- Understanding and knowing the morphological structure of the heart, arteries and veins of the systemic and pulmonary circulations.
- Studying the different parts of the lymphatic system and the endocrine glands
- Knowing the basic structures of the nervous system (the spinal cord and peripheral nerves). Skills:
- To understand and handle the anatomical terminology
- Analyzing of the gained knowledge from the morphological and functional point of views.
- Practical usage of theoretical information in practical exercises and dissection of the thorax and abdomen

#### Class syllabus:

Topographical regions. Introduction into dissection. Heart. Vascular system. Lymphatic system, spleen. Endocrine glands. Nervous system. Spinal cord, spinal nerves. Cervical plexus, brachial plexus, lumbar plexus and sacral plexus. Muscles and topographical regions of the upper limb. Muscles and topographical regions of the lower limb. Muscles and topographical regions of the head and neck. Muscles and topographical regions of the trunk. Dissection of thorax and abdomen. Pneumothorax, Diaphragmatic hernia. Defects of the anterior abdominal wall. Portocaval anastomosis. Hernia.

#### Recommended literature:

Platzer, W. Color Atlas of Human Anatomy. Vol.1. Locomotor System. 6th rev ed. Stuttgart; New York: Georg Thieme Verlag, 2009. 480p. ISBN13 9783131494818

Fritsch, H., Kuehnel, W. Color Atlas of Human Anatomy. Vol. 2. Internal organs. 5th ed. Stuttgart; New York: Georg Thieme Verlag, 2008. 458p. ISBN13 9781604065633 Kahle, W., Frotscher M. Color Atlas of Human Anatomy. Vol. 3. Nervous System and Sensory Organs. 6th ed. Stuttgart; New York: Georg Thieme Verlag, 2008. 426p. ISBN13 9783131536761 Netter, F. H. Atlas of Human Anatomy. 5th ed. Philadelphia: Saunders - Elsevier, 2010. 624p. ISBN: 978-1-4160-5951-6

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 909

A	В	С	D	Е	FX
28,49	17,49	30,03	18,15	5,5	0,33

Lecturers: doc. MUDr. Eliška Kubíková, PhD., MPH, prof. MUDr. Peter Mráz, DrSc., doc. MUDr. Anna Holomáňová, CSc., MUDr. Hisham El Falougy, PhD., MUDr. Zora Haviarová, PhD., RNDr. Petra Lukáčiková, PhD., MUDr. Petra Šelmeciová, PhD., MUDr. Marta Masárová, MUDr. Jana Jakimová, MUDr. Abdolreza Majidi, Mgr. Vladislava Zohdi, PhD., MUDr. Andrej Mifkovič, PhD.

Last change: 21.03.2018

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.AÚ/L-S-VLa-003/17 Anatomy 3

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 48s / 48s Form of the course: on-site learning

Number of credits: 11

**Recommended semester: 3.** 

**Educational level: I.II.** 

Prerequisites: LF.AÚ/L-S-VLa-002/16 - Anatomy 2

# **Course requirements:**

Course requirements:

100% participation on the practical exercises

Passing 1 written test with at least 60%

Test evaluation: A: 91 - 100 %, B: 81 - 90 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 - 0 %

Exam:

a. Practical part

- b. Test (achieving at least 60% of correct answers)
- c. Oral part (5 questions)

Final mark of the semester is determined from the average of received scores.

In case of not passing the exam the student must repeat only the part he did not pass.

## **Learning outcomes:**

Knowledge:

- Understanding and knowing each part of the central nervous system
- Studying the autonomic nervous system (sympathetic and parasympathetic parts)
- Knowing the structure of the lymphatic system and endocrine glands.
- Studying the morphological structure of sense organs, skin and its appendages Skills:
- To understand and handle the anatomical terminology
- Analyzing of the gained knowledge from the morphological and functional point of views.
- Practical usage of theoretical information in dissection of the peripheral nerves and vessels.
- Practical usage of theoretical information in the practical exercises from the central nervous system.

## Class syllabus:

Medulla oblongata, pons. The 4th Ventricle, nuclei of the cranial nerves. Cerebellum. Mesencephalon, reticular formation. Thalamus. Hypothalamus, hypophysis, epithalamus, metathalamus. Rhinencephalon and limbic system. Telencephalon, basal nuclei. Autonomic nervous system. Sense organs. Nervous pathways. Skin.

Dissection – vessels and nerves of the upper limb, lower limb, head and neck. Macroscopic anatomy of the spinal cord. Structure of the spinal nerve. Injuries of the spinal cord. Disorder of motor and sensory functions. Vertebro-medullary topography. Removal of the brain from the skull. Cranial nerve projections. Cranial meninges. Venous sinuses of the dura mater. Subarachnoid cisterns. Blood supply of the brain. Cranial nerve projections from the base of the brain. Corneal and sucking reflexes. Facial paralysis. Surface features of the cerebral hemispheres. Brain stem. Cerebellum. Fourth ventricle. Parkinsonism. Internal capsule hemorrhage. Diencephalon. Third ventricle. Basal nuclei. White matter of the cerebrum. Cerebrospinal fluid and its circulation. Intracranial hypertension. Hydrocephalus.

#### **Recommended literature:**

Recommended literature:

Platzer, W. Color Atlas of Human Anatomy. Vol.1. Locomotor System. 6th rev ed. Stuttgart; New York: Georg Thieme Verlag, 2009. 480p. ISBN13 9783131494818

Fritsch, H., Kuehnel, W. Color Atlas of Human Anatomy. Vol. 2. Internal organs. 5th ed.

Stuttgart; New York: Georg Thieme Verlag, 2008. 458p. ISBN13 9781604065633

Kahle, W., Frotscher M. Color Atlas of Human Anatomy. Vol. 3. Nervous System and Sensory Organs. 6th ed. Stuttgart; New York: Georg Thieme Verlag, 2008. 426p. ISBN13 9783131536761 Netter, F. H. Atlas of Human Anatomy. 5th ed. Philadelphia: Saunders - Elsevier, 2010. 624p.

ISBN: 978-1-4160-5951-6

# Languages necessary to complete the course:

#### **Notes:**

#### Past grade distribution

Total number of evaluated students: 646

A	В	С	D	Е	FX
14,86	18,58	27,71	21,05	13,16	4,64

Lecturers: doc. MUDr. Eliška Kubíková, PhD., MPH, prof. MUDr. Peter Mráz, DrSc., doc. MUDr. Anna Holomáňová, CSc., MUDr. Hisham El Falougy, PhD., MUDr. Zora Haviarová, PhD., MUDr. Petra Šelmeciová, PhD., Mgr. Vladislava Zohdi, PhD., RNDr. Petra Lukáčiková, PhD., MUDr. Andrej Mifkovič, PhD.

Last change: 21.03.2018

<b>University:</b> Con	nenius Universi	ty in Bratislava			
Faculty: Faculty	y of Medicine				
Course ID: LF.IK_1/L-S-VI	La-116/19	Course title: Angiology - Vasc	ular medicine		
Educational act Type of activit Number of hor per week: p Form of the co	ies: lecture urs: er level/semest				
Number of cred	lits: 2				
Recommended	semester: 9.				
<b>Educational lev</b>	rel: I.II.				
Prerequisites:					
Course require	ments:				
Learning outco	mes:			_	
Class syllabus:					
Recommended	literature:				
Languages nece	essary to comp	lete the course:			
Notes:					
Past grade distr Total number of		ents: 41			
A	В	С	D	Е	FX
92,68	7,32	0,0	0,0	0,0	0,0
Lecturers: prof.	MUDr. Viera Š	Stvrtinová, PhD.		_	
Last change:					
Approved by:					

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.KO/L-S-VLa-165/19

Basic surgical procedures in ophthalmology (orbit, adnexa and

eyeglobe)

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

Knowledge: 100 % of participation in practicals Test: with minimum 60 % of correct answers

Test score: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less

Exam

Total score is determined from the average of received ratings.

# **Learning outcomes:**

basic knowledge of anatomy, histopathology, general principles in surgery

#### Class syllabus:

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.

# **Recommended literature:**

1 https://www.thieme.com/books-main/ophthalmology/product/1327-ophthalmic-surgical-procedures

2 https://eyetube.net/

# Languages necessary to complete the course:

## **Notes:**

## Past grade distribution

Total number of evaluated students: 10

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. MUDr. PhDr. Alena Furdová, PhD., MPH, MUDr. Jela Valášková, PhD.

Last change: 12.03.2020

Approved by:	
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**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚLBG/L-S-VLa-006/16 | Biology and Human Genetics 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 24s

Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 1.

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

100% participation on the practical exercises

1 seminar work

Passing 2 written partial tests with at least 60% from each

Test evaluation: A: 91 - 100 %, B: 81 - 90 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 - 0 %

Final mark of the semester is determined from the average of received scores.

# **Learning outcomes:**

To gain basic information about cell morphology and physiology and about molecular biology and genetics.

# Class syllabus:

The cell as the basic structural and functional unit: morphology, cell surfaces, nucleus, nucleolus, mitochondria, endoplasmic reticulum, ribosomes, Golgi apparatus, cytoskeleton. Intercellular spaces and intercellular communication. Transport of materials - glycocalyx, membrane receptors. Cell cycle; amitosis, mitosis (mitotic apparatus, endomitosis). Tissue and cell cultivation. Viruses: genome, reproduction, mutations and recombination, oncogenic viruses and acute transforming viruses. Prokaryotic cells - morphology, structure, and genome. Parasexual process in bacteria. Differences between prokaryotes and eukaryotes. Protista. Molecular biology: structure of DNA and RNA, denaturation and renaturation of DNA, replication of DNA, transcription, translation, genetic code. Genes of prokaryotic and eukaryotic cells, insertion sequences and transposons, resistance to antibiotics (R plasmids, DNA recombination, vectors). DNA analysis and its utilization in medical practice.

#### **Recommended literature:**

BÖHMER, D. and REPISKÁ, V.: Genetic Aspects of Normal and Pathologic Traits in Humans. Bratislava: Asklepios, 2009; 100 p.

ISBN 978-80-7167-139-8.

BÖHMER, D., REPISKÁ, V. and DANIŠOVIČ, Ľ.: Introduction to Medical and Molecular

Biology. Bratislava: Asklepios, 2010; 95 p.

ISBN 978-80-7167-151-0.

Nussbaum, R.L., McInnes, R.R., Willard, H.F.: Thompson & Thompson Genetics in medicine. 8th edition. Elsevier, Philadelphia. 2016; 546 p.

Alberts, B., et al. Molecular biology of cell. 6th edition. Garland Science, New York. 2015; 1464 p.

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 978

A	В	С	D	Е	FX
3,48	15,54	28,73	33,54	16,26	2,45

Lecturers: doc. MUDr. Daniel Böhmer, PhD., prof. RNDr. Vanda Repiská, PhD., prof. RNDr. Ján Vojtaššák, CSc., MUDr. Tatiana Braxatorisová, CSc., doc. RNDr. Ľuboš Danišovič, PhD., doc. Ing. Helena Gbelcová, PhD., RNDr. Ľubica Krajčíová, PhD., RNDr. Marcela Kuniaková, PhD., RNDr. Jana Malová, PhD., RNDr. Robert Petrovič, PhD., RNDr. Anna Totková, PhD., RNDr. Zuzana Varchulová Nováková, PhD., MUDr. Patrik Víťazka, PhD., RNDr. Andrea Pastoráková, PhD., Mgr. Petra Priščáková, PhD.

Last change: 08.12.2016

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚLBG/L-S-VLa-007/16 | Biology and Human Genetics 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 24s Form of the course: on-site learning

Number of credits: 7

Recommended semester: 2.

**Educational level: I.II.** 

Prerequisites: LF. ÚLBG/L-S-VLa-006/16 - Biology and Human Genetics 1

# **Course requirements:**

100% participation on the practical exercises

1 seminar work

Passing 1 written partial test with at least 60%

Test evaluation: A: 91 - 100 %, B: 81 - 90 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 - 0 %

Exam: a) written test, at least 60 %, B) theoretical part – 3 questions (cytology,molecular genetics, human genetics)

Final mark of the semester is determined from the average of received scores

#### **Learning outcomes:**

To gain basic information about cell morphology and physiology and about molecular biology and genetics.

#### Class syllabus:

The cell as the basic structural and functional unit: morphology, cell surfaces, nucleus, nucleolus, mitochondria, endoplasmic reticulum, ribosomes, Golgi apparatus, cytoskeleton. Intercellular spaces and intercellular communication. Transport of materials - glycocalyx, membrane receptors. Cell cycle; amitosis, mitosis (mitotic apparatus, endomitosis). Tissue and cell cultivation. Viruses: genome, reproduction, mutations and recombination, oncogenic viruses and acute transforming viruses. Prokaryotic cells - morphology, structure, and genome. Parasexual process in bacteria. Differences between prokaryotes and eukaryotes. Protista. Molecular biology: structure of DNA and RNA, denaturation and renaturation of DNA, replication of DNA, transcription, translation, genetic code. Genes of prokaryotic and eukaryotic cells, insertion sequences and transposons, resistance to antibiotics (R plasmids, DNA recombination, vectors). DNA analysis and its utilization in medical practice.

#### **Recommended literature:**

BÖHMER, D. and REPISKÁ, V.: Genetic Aspects of Normal and Pathologic Traits in Humans.

Bratislava: Asklepios, 2009; 100 p.

ISBN 978-80-7167-139-8.

BÖHMER, D., REPISKÁ, V. and DANIŠOVIČ, Ľ.: Introduction to Medical and Molecular

Biology. Bratislava: Asklepios, 2010; 95 p.

ISBN 978-80-7167-151-0.

Nussbaum, R.L., McInnes, R.R., Willard, H.F.: Thompson & Thompson Genetics in medicine. 8th edition. Elsevier, Philadelphia. 2016; 546 p.

Alberts, B., et al. Molecular biology of cell. 6th edition. Garland Science, New York. 2015; 1464 p.

# Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 912

A	В	С	D	Е	FX
30,26	12,72	19,96	11,84	14,69	10,53

Lecturers: doc. MUDr. Daniel Böhmer, PhD., prof. RNDr. Vanda Repiská, PhD., doc. RNDr. Ľuboš Danišovič, PhD., doc. Ing. Helena Gbelcová, PhD., prof. RNDr. Ján Vojtaššák, CSc., RNDr. Ľubica Krajčíová, PhD., RNDr. Marcela Kuniaková, PhD., RNDr. Andrea Pastoráková, PhD., RNDr. Robert Petrovič, PhD., Mgr. Petra Priščáková, PhD.

**Last change:** 21.03.2018

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.FyÚ/L-S-VLa-143/19 | Brain - the base for human perception and cognition

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 7.

**Educational level: I.II.** 

**Prerequisites:** LF.ÚPF/L-S-VLa-057/18 - Pathological Physiology 2

#### **Course requirements:**

## **Learning outcomes:**

The student will get the information on the basic structures of human brain and will understand the functions in association to brain structures. The student will understand the hierarchical principle of the central nervous system in regulation of body and brain functions and cooperation of particular areas of the central nervous system together with functional specialization of brain hemispheres in relation to perception, central processing and cognition. He will get the information on basic cognitive disorders with behavioural consequences.

## Class syllabus:

Complex functions of the brain. Functional organization of neural circuits. Neuronal signaling and neuronal plasticity.

General principles of cognitive and behavioral physiology and pathophysiology.

Cognitive disorders. Functional specialization of brain hemispheres, dominant hemispere syndromes. Perception, attention and awareness and its disorders.

Neurobehavioral and neurodevelopmental disorders in children focused on autism.

#### **Recommended literature:**

Fundamentals of Cognitive neuroscience: A beginner's Guide. Baars, B a Gage, N. Elsevier, 2013.

The biology of the Mind, Gazzaniga, M.S., et al, WW Norton & Co, 2013

# Languages necessary to complete the course:

## **Notes:**

## Past grade distribution

Total number of evaluated students: 44

A	В	С	D	Е	FX
97,73	2,27	0,0	0,0	0,0	0,0

Lecturers: prof. MUDr. Daniela Ostatníková, PhD.

**Last change:** 10.02.2020

Approved by:	
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**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.KDP/L-S-VLa-118/19 Child and Adolescent Psychiatry

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 9.

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

100% participation on lectures.

Written test minimal 60%

Evaluation of tests: A:91-100%, B:81-99% C:73-80%, D:6-72%, E:60-65%, Fx:under 59%

# **Learning outcomes:**

Knowledge:general acknowledgments in pedopsychiatry,psychopathology,syndromology, nosological units,terapy and prevention.Bonds to pediatry,neurophysiology,neuroimagine methods,ethics and forensic issues.

Skills: taking of the case history, using of the diagnostic and rating standards, base of the forensic evaluation e.g. CAN (in Slovak republic and and in domestic countries of undergraduates)

# Class syllabus:

- 1. Global disorders of development quantitative
- 2. Global disorders qualitative /developmental crisis, development modified by illness, anifestation of illness in developmental stages/
- 3. Classification in child rold adolescent psychiatry
- 4. Developmen.tal disorders with the beginning usually in childhood and adolescence /hyperkinetic syndrome, conduct disorder, emotional disorders, disorders in social relationships, tics and others/
- 5. Developmental disorders such as behavioural syndromes associated with physiological disorders and somatic factors in childhood and adolescence /disorders of eating, disorders of sleeping, sexual dysfunction/
- 6. Specific developmental disorders /reading disorder, arithmetic disorder, motor disorder, language disorder/ and pervasive disorders
- 7. Mental retardation
- 8. Abnormal psychic reactions and neurosis in childhood adolescence
- 9. Psychosis and organic mental disorders in childhood and adolescence
- 10. Psychoactive substance abuse and dependence at children and adolescents
- 11. Treatment in child and adolescent psychiatry
- 12. Ethics and child and adolescent psychiatry
- 13. Child psychiatry and Law and abuse of psychiatry

# **Recommended literature:**

Kaplan H.I.,Sadock B.J.:Kaplan and Sadock's Synopsis of Psychiatry:Behavioral Sciences,Clinical Psychiatry.10th ed.Lippincott Williams and Wilkins,2007,1472 pp. Semple,D.,Smyth,R.:Oxford Handbook of Psychiatry, Oxford University Press. 2012,977 s.

# Languages necessary to complete the course:

**Notes:** 

# Past grade distribution

Total number of evaluated students: 35

A	В	С	D	Е	FX
68,57	11,43	11,43	2,86	2,86	2,86

Lecturers: doc. MUDr. Jana Trebatická, PhD.

**Last change:** 12.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.AÚ/L-S-VLa-127/19 | Clinical Anatomy 1

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 7.

**Educational level: I.II.** 

**Prerequisites:** LF.AÚ/L-S-VLa-003/17 - Anatomy 3

# **Course requirements:**

100% participation on the practical exercises

Passing 1 written test with at least 60%

Oral exam

Test evaluation: A: 91 - 100 %, B: 81 - 90 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 - 0 %

Final mark of the semester is determined from the average of received scores.

# **Learning outcomes:**

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

#### Class syllabus:

Clinical anatomy of the locomotor system, digestive system, respiratory system, and urogenital system.

#### **Recommended literature:**

- 1. Hansen, J. T. Netter's Clinical Anatomy. 4th ed. Philadelphia: Elsevier, 2018. 608 p. ISBN: 9780323531887
- 2. Moore, K., Agur, A., Dalley, A. Essential Clinical Anatomy. 5th ed. Philadelphia: Lippincott Williams and Wilkins, 2014. 736p. ISBN: 9781469832012

## Languages necessary to complete the course:

**Notes:** 

Past grade distribution						
Total number of evaluated students: 48						
A	В	С	D	Е	FX	
58,33	39,58	2,08	0,0	0,0	0,0	

Lecturers: MUDr. Andrej Mifkovič, PhD., MUDr. Zora Haviarová, PhD.

**Last change:** 03.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.AÚ/L-S-VLa-128/19 | Clinical Anatomy 2

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

Prerequisites: LF.AÚ/L-S-VLa-127/19 - Clinical Anatomy 1

## **Course requirements:**

100% participation on the practical exercises

Passing 1 written test with at least 60%

Oral exam

Test evaluation: A: 91 - 100 %, B: 81 - 90 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 - 0 %

Final mark of the semester is determined from the average of received scores.

# **Learning outcomes:**

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

#### Class syllabus:

Clinical anatomy of the cardiovascular system, lymphatic system, endocrine glands, nervous system, sense organs, and common integument.

#### **Recommended literature:**

- 1. Hansen, J. T. Netter's Clinical Anatomy. 4th ed. Philadelphia: Elsevier, 2018. 608 p. ISBN: 9780323531887
- 2. Moore, K., Agur, A., Dalley, A. Essential Clinical Anatomy. 5th ed. Philadelphia: Lippincott Williams and Wilkins, 2014. 736p. ISBN: 9781469832012

## Languages necessary to complete the course:

**Notes:** 

Past grade distribution Total number of evaluated students: 10						
A	В	С	D	Е	FX	
100,0	0,0	0,0	0,0	0,0	0,0	
Lecturers: MUDr. Andrej Mifkovič, PhD., MUDr. Zora Haviarová, PhD.						

**Last change:** 03.03.2020

University: Comenius University in Bratislava Faculty: Faculty of Medicine Course ID: **Course title:** LF.ÚLChB/L-S-VLa-036/19 Clinical Biochemistry **Educational activities:** Type of activities: lecture **Number of hours:** per week: per level/semester: 25s Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 7. **Educational level:** I.II. Prerequisites: LF. ÚPF/L-S-VLa-057/18 - Pathological Physiology 2, LF. IK 1/L-S-VLa-029/18 -**Internal Medicine 1 Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 226 В  $\mathbf{C}$ D E Α FX 11,95 22,57 30,97 19,47 15,04 0,0 Lecturers: prof. MUDr. Ladislav Turecký, CSc., doc. RNDr. Eva Uhlíková, CSc., RNDr. Milada Laššánová, CSc.

Last change:

Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF.ÚLBG/L-S-VLa-132-4/19 Clinical Genetics and Molecular Biology **Educational activities:** Type of activities: lecture **Number of hours:** per week: per level/semester: 24s Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 8. **Educational level:** I.II. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 10 Α C В D Ε FX 100,0 0,0 0,0 0,0 0,0 0,0 Lecturers: doc. MUDr. Daniel Böhmer, PhD., prof. RNDr. Vanda Repiská, PhD. Last change: Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF.ÚLBG/L-S-VLa-132-5/19 Clinical Genetics and Molecular Biology **Educational activities:** Type of activities: lecture **Number of hours:** per week: per level/semester: 24s Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 10. **Educational level:** I.II. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 12 C A В D Ε FX 91,67 8,33 0,0 0,0 0,0 0,0 Lecturers: doc. MUDr. Daniel Böhmer, PhD., prof. RNDr. Vanda Repiská, PhD. Last change: Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IÚ/L-S-VLa-133/19 | Clinical Immunology

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 7.

**Educational level: I.II.** 

Prerequisites: LF. ÚPA/L-S-VLa-055/18 - Pathological Anatomy 2, LF. ÚPF/L-S-VLa-057/18 -

Pathological Physiology 2

# **Course requirements:**

Course requirements:

Exam: written part: to pass the final test at minimally 60%

oral exam: 3 questions

Evaluation of the test: A:91-100%, B: 81-99%, C:73-80%, D: 66-72%, E:60-65%, Fx:≤ 59%.

# **Learning outcomes:**

Knowledge:1. To deepen knowledge of clinical immunology, immunity participating in the development of immunopathological states and diseases (allergy, autoimmunity, transplantation, cancer).

- 2. To understand the importance of chronic low grade non-infectious systemic inflammation in the pathogenesis of whole range of diseases, especially in the development of cardiovascular, neurological diseases and tumors.
- 3. To understand the clinical symptomatology of problems arising from the deficiencies of the individual components of the immune system, especially the problems of AIDS.

# Class syllabus:

Definition and the subject matter of clinical immunology. The distribution of immunopathological reactions and diseases affecting the immune system. Ist. type hypersensitivity reactions (anaphylaxis and atopy). IInd., IIIrd, IVth. and Vth. type of hypersensitivity reactions, the mechanisms, clinical symptomatology and diagnostics. Serum shock, serum sickness, pseudoallergies, therapy and their differential diagnosis. Autoimmunity - physiological and pathological, mechanisms of its development, failure of tolerance. Autoimmune diseases. Immunomodulatory effects of transfusions. The tissues and organs transplantations. Antitumor immunity, metastases. Reproductive Immunology. Immunodeficiencies — congenital and acquired. AIDS. Systemic inflammation, sepsis and MODS. Handling immune mechanisms - immunostimulation, vaccination, immunosuppression; monoclonal antibodies and cytokines in the treatment of diseases.

#### **Recommended literature:**

Obligatory textbook:

Buc M: Basic and Clinical Immunology. 3. Bratislava: Comenius University 2014, 305 p.

Recommended textbooks:

Abbas AK, Lichtman, AH, Pillai S: Cellular and Molecular Immunology. 7th ed. New York: Elsevier, Saunders 2012, 545 s.

Doan T, Melvold R, Viselli S, Waltenbaugh C: Immunology&. 2nd ed. Philadelphia: Lippincot Williams & Wilkins 2013, 376 p.

Bellanti JA (Ed.) Immunology IV. Clinical Applications in Health and Disease. Bethesda: I care Press 2012, 1063 p.

Chapel H, Haeney M, Misbah S, Snowden N.: Essentials of Clinical Immunology. Willey Oxford: Blackwell 2014, 365 p.

# Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 10

A	В	С	D	Е	FX
40,0	0,0	20,0	20,0	20,0	0,0

Lecturers: doc. MUDr. Mária Bucová, CSc., prof. MUDr. Milan Buc, DrSc., 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: 04.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.MÚ/L-S-VLa-134-4/19 | Clinical Microbiology

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 8.

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

Final exam: written part - test with the minimum success rate of 60%

theoretical part - 2 questions

defending the seminar work (in extent of 5 min.)

Evaluation of the test: A: 100-91%, B: 90-81%, C: 80-73%, D: 72-66%, E: 65-60%, Fx: 59 % and

less

The final evaluation is determined from average of the obtained evaluations

# **Learning outcomes:**

Knowledge:

Explanation of pathogenesis of microbial diseases according to the affected organs and organ systems

Skills:

Microbiologic diagnostics of infectious diseases and interpretation of results for the clinician; proposition of rational therapy on the basis of in vitro examination results.

# Class syllabus:

Principles of rational antimicrobial therapy in outpatients and in hospitalised patients. Multiresistance of bacteria, risks and possible solutions. Diagnostics and therapy of respiratory infections. Diagnostics and therapy of sepsis and endocarditis. Diagnostics and therapy of meningitis. Infectious complications in immunocompromised patient. Current therapy options of mycoses. Diagnostics and antimicrobial therapy of urogenital infections. Intraabdominal infections. Diagnostics and therapy of bacterial zoonoses. Differential diagnostics of glandular fever syndrome. Presentation of the seminar works.

# **Recommended literature:**

Obligatory study literature:

Inglis, T.J.J.: Microbiology and Infection. 3rd ed., New York: Churchill Livingstone Elsevier, 2007, 322 pp.

Recommended study literature:

Engleberg, N.C. et al: Schaechter's Mechanisms of Microbial Disease. 4th ed. Baltimore:

Lippincott Williams and Wilkins, 2007. 762 pp.

Murray, P.R. et al: Mannual of Clinical Microbiology, 7th ed., Washington, D.C.: ASM Press, 2007. 1482 pp. (selected chapters)

# Languages necessary to complete the course:

**Notes:** 

# Past grade distribution

Total number of evaluated students: 1

A	В	С	D	Е	FX
0,0	100,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. MUDr. Adriana Liptáková, PhD., MPH, doc. RNDr. Nasir Ahmad Jalili, CSc., MPH, doc. RNDr. Lívia Slobodníková, CSc., MUDr. Ján Koreň, PhD., Mgr. Marek Straka

**Last change:** 04.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.MÚ/L-S-VLa-134-5/19 | Clinical Microbiology

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

Final exam: written part - test with the minimum success rate of 60%

theoretical part - 2 questions

defending the seminar work (in extent of 5 min.)

Evaluation of the test: A: 100-91%, B: 90-81%, C: 80-73%, D: 72-66%, E: 65-60%, Fx: 59 % and

less

The final evaluation is determined from average of the obtained evaluations

# Learning outcomes:

Knowledge:

Explanation of pathogenesis of microbial diseases according to the affected organs and organ systems

Skills:

Microbiologic diagnostics of infectious diseases and interpretation of results for the clinician; proposition of rational therapy on the basis of in vitro examination results.

# Class syllabus:

Principles of rational antimicrobial therapy in outpatients and in hospitalised patients. Multiresistance of bacteria, risks and possible solutions. Diagnostics and therapy of respiratory infections. Diagnostics and therapy of sepsis and endocarditis. Diagnostics and therapy of meningitis. Infectious complications in immunocompromised patient. Current therapy options of mycoses. Diagnostics and antimicrobial therapy of urogenital infections. Intraabdominal infections. Diagnostics and therapy of bacterial zoonoses. Differential diagnostics of glandular fever syndrome. Presentation of the seminar works.

# **Recommended literature:**

Obligatory study literature:

Inglis, T.J.J.: Microbiology and Infection. 3rd ed., New York: Churchill Livingstone Elsevier, 2007, 322 pp.

Recommended study literature:

Engleberg, N.C. et al: Schaechter's Mechanisms of Microbial Disease. 4th ed. Baltimore:

Lippincott Williams and Wilkins, 2007. 762 pp.

Murray, P.R. et al: Mannual of Clinical Microbiology, 7th ed., Washington, D.C.: ASM Press, 2007. 1482 pp. (selected chapters)

## Languages necessary to complete the course:

**Notes:** 

## Past grade distribution

Total number of evaluated students: 2

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. MUDr. Adriana Liptáková, PhD., MPH, prof. MUDr. Vladimír Krčméry, DrSc., doc. RNDr. Nasir Ahmad Jalili, CSc., MPH, doc. RNDr. Lívia Slobodníková, CSc., MUDr. Ján Koreň, PhD., Mgr. Marek Straka

Last change: 04.03.2020

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF.ÚPA/L-S-VLa-135-4/19 Clinical Pathology **Educational activities:** Type of activities: lecture **Number of hours:** per week: per level/semester: 24s Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 8. **Educational level:** I.II. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 31 В  $\mathbf{C}$ D Ε FX 77,42 9,68 12,9 0,0 0,0 0,0 Lecturers: prof. MUDr. L'udovít Danihel, CSc., prof. MUDr. Pavel Babál, CSc., doc. MUDr. Ján Porubský, CSc., doc. MUDr. Zuzana Čierna, PhD., MUDr. Pavol Janega, PhD. Last change: Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF.ÚPA/L-S-VLa-135-5/19 Clinical Pathology **Educational activities:** Type of activities: lecture **Number of hours:** per week: per level/semester: 24s Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 10. **Educational level:** I.II. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 3 C В D Ε FX 33,33 66,67 0,0 0,0 0,0 0,0 Lecturers: prof. MUDr. L'udovít Danihel, CSc., prof. MUDr. Pavel Babál, CSc., doc. MUDr. Ján Porubský, CSc., doc. MUDr. Zuzana Čierna, PhD., MUDr. Pavol Janega, PhD. Last change: Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚFKF/L-S-VLa-131/19 | Clinical Pharmacology

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level: I.II.** 

## **Prerequisites:**

#### **Course requirements:**

100% participation on practicals

**Final Examination** 

- written part test (minimum is to achieve 70 %)
- theoretical part two questions (special pharmacology), preparation of a recipe

The final rating is the arithmetic mean of all ratings

## **Learning outcomes:**

Knowledge:

To acquire knowledge on the application of pharmacology in clinical situations To acquire skills on pharmacology-based decision making for selected diseases Skills:

- ability to apply the knowledge of pharmacology in drog selection
- ability to judge the risk/benefit ratio of drugs in selected diseases in an individual patient

## Class syllabus:

Strategy and forms of pharmacotherapy. Methods of drug evaluation. GLP, GCP. Patient's compliance. The risk of drugs and it's prevention. Pharmacovigilance and monitoring of adverse reactions. Therapeutic drug monitoring. Particularity of pharmacotherapy in pregnancy and during lactation. Particularity of medication in children. Particularity of medication the elderly. Problem oriented teaching. Clinical-pharmacological analysis of selected diseases. Elaboration of pharmacotherapeutics plans with drug prescriptions.

#### **Recommended literature:**

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. Košice. 1. vyd., EOULIBRIA 2006, 535 s.

Kristová, V., Wawruch, M., Tisoňová, J. a kol. Kardiovaskulárne liečivá. Bratislava : Univerzita Komenského, 2011. 238 s.

Božeková L., Kriška M., Wawruch M.: Farmakológia a klinická farmakológia antiinfekčných liečiv. Bratislava. Asklepios 2005, 124 s.

Kriška M. a kol.: Memorix klinickej farmakológie. Bratislava. SAP, 2. vyd., 2006. 610 s.

Languages nece	essary to comple	te the course:			
Notes:					
Past grade distr Total number of	ribution f evaluated studer	nts: 14			
A	В	С	D	Е	FX
78,57	21,43	0,0	0,0	0,0	0,0
Lecturers: prof	. MUDr. Martin V	Wawruch, PhD.,	MUDr. Jana Tiso	oňová, PhD.	
Last change: 04	1.03.2020				
Approved by:					

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

**Course ID:** 

Course title:

LF.KNM/L-S-VLa-136-4/19

Clinical applications of diagnostic and therapeutic methods of nuclear medicine

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level:** I.II.

## **Prerequisites:**

## **Course requirements:**

100 % attendance of lectures

Success rate in written test at least 60 %

Test evaluation: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

Oral exam

The global evaluation will be based on the average of the evaluations obtained.

## **Learning outcomes:**

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

## Class syllabus:

Clinical applications of diagnostic and therapeutic methods in selected oncological and nononcological disorders:

- Breast cancer, prostate cancer, colorectal cancer
- Neuroendocrine neoplasia and syndromes of multiple endocrine neoplasia
- Multiple myeloma and malignant lymphoma
- Metastatic malignant tumour of unknown primary
- Characterisation of nodular liver lesions
- Thyroid and parathyroid disorders

- Localization of infectious and inflammatory foci Basics of Scientific Work in Nuclear Medicine:
- Evidence-based medicine
- Types of clinical trials in nuclear medicine and the principles of clinical trials with diagnostic product

#### **Recommended literature:**

Biersack HJ et al., Clinical Nuclear Medicine, 2007, ISBN 978-3-540-28025-5

Current guidelines of European Association of Nuclear Medicine (https://www.eanm.org/publications/guidelines/)

Current guidelines of European Medicines Agency on clinical trials in evaluation of diagnostic agents (Doc. Ref. CPMP/EWP/1119/98/Rev 1)

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 2

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. MUDr. Soňa Balogová, PhD.

**Last change:** 04.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.KNM/L-S-VLa-136-5/19

Clinical applications of diagnostic and therapeutic methods of nuclear medicine

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level:** I.II.

## **Prerequisites:**

## **Course requirements:**

100 % attendance of lectures

Success rate in written test at least 60 %

Test evaluation: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

Oral exam

The global evaluation will be based on the average of the evaluations obtained.

## **Learning outcomes:**

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

## Class syllabus:

Clinical applications of diagnostic and therapeutic methods in selected oncological and non-oncological disorders:

- Breast cancer, prostate cancer, colorectal cancer
- Neuroendocrine neoplasia and syndromes of multiple endocrine neoplasia
- Multiple myeloma and malignant lymphoma
- Metastatic malignant tumour of unknown primary
- Characterisation of nodular liver lesions
- Thyroid and parathyroid disorders

- Localization of infectious and inflammatory foci Basics of Scientific Work in Nuclear Medicine:
- Evidence-based medicine
- Types of clinical trials in nuclear medicine and the principles of clinical trials with diagnostic product

#### **Recommended literature:**

Biersack HJ et al., Clinical Nuclear Medicine, 2007, ISBN 978-3-540-28025-5

Current guidelines of European Association of Nuclear Medicine (https://www.eanm.org/publications/guidelines/)

Current guidelines of European Medicines Agency on clinical trials in evaluation of diagnostic agents (Doc. Ref. CPMP/EWP/1119/98/Rev 1)

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 0

A	В	С	D	Е	FX
0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. MUDr. Soňa Balogová, PhD.

Last change: 04.03.2020

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID:** Course title: LF.ÚPF/L-S-VLa-138/19 Critical Appraisal and Academic Writing Skills **Educational activities:** Type of activities: lecture **Number of hours:** per week: per level/semester: 24s Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 8. **Educational level:** I.II. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 19 В  $\mathbf{C}$ D Ε FX 57,89 36,84 5,26 0,0 0,0 0,0 Lecturers: prof. MUDr. Beáta Mladosievičová, CSc., prof. MUDr. Marián Bernadič, CSc., prof. MUDr. Ivan Hulín, DrSc., prof. MUDr. Daniela Ostatníková, PhD., MUDr. Ljuba Bachárová, DrSc. Last change:

Strana: 46

# STATE EXAM DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Medicine					
Course ID:  LF/L-VLa-O-5/15  Course title:  Defense of the Diploma Thesis					
Number of credits: 2	Number of credits: 2				
Recommended semester:	11., 12				
Educational level: I.II.	Educational level: I.II.				
State exam syllabus:					
Last change:					
Approved by:					

University: Con	nenius Universi	ty in Bratislava			
Faculty: Facult	y of Medicine				
Course ID: LF.KSMCh/L-S	Course title: S-VLa-070/18 Dental Medicine				
Number of ho per week: p	ties: lecture / pra	er: 14s / 3s			
Number of cree	dits: 1				
Recommended	semester: 6.			_	
Educational lev	el: I.II.				
Prerequisites:				_	
Course require	ments:				
Learning outco	mes:				
Class syllabus:					
Recommended	literature:				
Languages nec	essary to compl	ete the course:			
Notes:				_	
Past grade dist Total number o	<b>ribution</b> f evaluated stude	ents: 360			
A	В	С	D	Е	FX
62,22	24,44	9,44	2,78	1,11	0,0
Hollý, PhD., MI Hrdličková, MD Korpášová, MU MDDr. Ľubomí Novák, PhD., M Bích Pham Ngo Pruts, MDDr. A MUDr. MDDr. A	DDr. Nikola Drž Dr. Michail Vas Dr. Ján Kováč, l r Malíček, PhD., IUDr. Andrea No c, MDDr. Soňa l lessandro Eman Adam Stebel, Ph	tanko, PhD., doc. íková Borovanov ileios Kapetanaki PhD., MPH, MDI MDDr. Marek M ováková, PhD., M Pintešová, PhD., J uele Sangalli, MD ID., MDDr. Marti	á, MUDr. Rastisl is, MDDr. Nora K Dr. Nikos Leptos, Iatajs, MDDr. Ša IUDr. Daniela No MDDr. Vladimír DDr. Martina Siro	av Edelstein, MI Kelecsényiová, M MUDr. Juraj Ly mseh Merdaa, M ovotňáková, PhD Prachár, doktor n otková, MUDr. R	DDr. Kristína IDDr. Anna sý, PhD., MPH, IUDr. Bohuslav J., MPH, MDDr. medicíny Halyna astislav Slávik,
Last change:					

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: Dental Medicine

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 14s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 7.

**Educational level: I.II.** 

**Prerequisites:** 

**Course requirements:** 

## **Learning outcomes:**

## Class syllabus:

Diseases of dental hard tissues, pulp and apical periodontium, septic foci. Periodontal and oral mucosa disorders. Orthodontic anomalies, cleft problems. Prosthetic treatment of dentition defects. Dentoalveolar and maxillofacial surgery - inflammations, traumatology, oncology. Management of medically and mentally compromised patients.

#### **Recommended literature:**

1. Mitchell, L., Mitchell, D.A.: Oxford Handbook of Clinical Dentistry, Oxford University Press, 1994, 1992, ISBN: 0-119-261959-4

#### Languages necessary to complete the course:

#### **Notes:**

#### Past grade distribution

Total number of evaluated students: 1041

A	В	С	D	E	FX
30,45	31,89	23,92	9,32	4,32	0,1

Lecturers: doc. MUDr. Stanislava Veselá, CSc., prof. MUDr. Peter Stanko, PhD., MUDr. Dušan Hollý, PhD., MDDr. Nikola Držíková Borovanová, MUDr. Rastislav Edelstein, MDDr. Kristína Hrdličková, MDDr. Michail Vasileios Kapetanakis, MDDr. Nora Kelecsényiová, MDDr. Anna Korpášová, MUDr. Ján Kováč, PhD., MPH, MDDr. Nikos Leptos, MUDr. Juraj Lysý, PhD., MPH, MDDr. Ľubomír Malíček, PhD., MDDr. Marek Matajs, MDDr. Šamseh Merdaa, MUDr. Bohuslav Novák, PhD., MUDr. Andrea Nováková, PhD., MUDr. Daniela Novotňáková, PhD., MPH, MDDr. Bích Pham Ngoc, MDDr. Soňa Pintešová, PhD., MDDr. Vladimír Prachár, doktor medicíny Halyna Pruts, MDDr. Alessandro Emanuele Sangalli, MUDr. Rastislav Slávik, MUDr. MDDr. Adam Stebel, PhD., MDDr. Martin Strunga, MUDr. Andrej Thurzo, PhD., MPH, MUDr. Anna Tomandlová, CSc.

Last change: 02.06.2015

Approved by:	
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**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.DK/L-S-VLa-008/19 Dermatovenerology 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 15s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 9.

**Educational level:** I.II.

**Prerequisites:** LF.ÚFKF/L-S-VLa-012/19 - Pharmacology 2

## **Course requirements:**

100 % attendance in practical lessons Written test – minimum score: 60 %

Results rating: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

Patient's examination - preparing of hospital record

Final rating is determined as the average of all received ratings.

## Learning outcomes:

Knowledge: Basic knowledge of dermatologic morphology, bacterial and viral skin diseases, sexually transmitted infections and different dermatoses.

Practical skills: Dermatologic investigations and its practical use: histological investigation, allergologic investigation, mycological investigation, patient's examination. Collection of the material for histological investigation. Provide differential diagnoses proposals and methods of its therapy.

## Class syllabus:

Anatomy, physiology, histopathology of the skin, principles of morphology. Physical and chemical damage of skin. Erythemato-squamous diseases - pityriasis rosea, psoriasis, parapsoriasis, erytroderma. Papulous diseases – lichen rubber, prurigo.

Blistering diseases – pemphigus, pemphigoides, dermatitis herpetiformis. Viral infections- herpes simplex, herpes zoster, common warts, condylomata acuminata, molluscum contagiosum, etc. Bacterial disorders of skin and mucous membranes - gonorrhoea, non-specific urethritis, syphilis, ulcus molle, borreliosis, skin forms of tuberculosis, chlamydial infections, pyodermas of sweat glands and hair follicles, erythrasma. Fungal infections – epidermophytia, trichophytia, microsporia, favus, candidiasis. Episoonosis.

### **Recommended literature:**

Švecová, D., Danilla, T.: Textbook of Dermatology. UK Bratislava, 2014, 346 p.

Švecová, D., Danilla, T.: Textbook of Dermatology. UK Bratislava, 2010, 344 p.

Švecová, D.: Handbook of Dermatovenerology for Practical Lessons, UK Bratislava, 2014,

167p...

#### Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 236 A В $\mathbf{C}$ D E FX 98,73 0,0 0,0 0,42 0,85 0,0

**Lecturers:** prof. MUDr. Mária Šimaljaková, PhD., prof. MUDr. Danka Švecová, PhD., doc. MUDr. Dušan Buchvald, CSc., doc. MUDr. Tibor Danilla, PhD.

**Last change:** 04.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.DK/L-S-VLa-009/19 Dermatovenerology 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 20s / 20s Form of the course: on-site learning

Number of credits: 3

Recommended semester: 10.

**Educational level: I.II.** 

**Prerequisites:** LF.DK/L-S-VLa-008/19 - Dermatovenerology 1

## **Course requirements:**

100 % attendance in practical lessons

Exam: written – test: minimum score: 60 %

Practical part- patient's examination - preparing of hospital record differential -diagnostic process, question from practical lessons

Theoretical part - 3 questions from dermatovenerology

Results rating: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %, Fx: 59 % and less

Final rating is determined as the average of all received ratings.

#### **Learning outcomes:**

Practical skills: Application of differential-diagnostic processes in clinical practice, therapeutic methods. Preserve the therapy principles of skin diseases.

Knowledge: Etiopathogenesis knowledge, clinical picture of dermatoses, diagnostic process, differential diagnoses, therapy of skin and mucous membrane disorders. Principles of therapy of skin diseases and its prevention.

#### Class syllabus:

Reactions to medications (exanthema medicamentosum), urticaria, oedema Quincke. Eczema contactum allergicum. Dermatitis contacta toxica. Seborrhoeic dermatitis, Atopic dermatitis, Eczema microbiale. Erythematous diseases. Pustular diseases. Diseases of blood vessels, chronic venous insufficiency. Acne, rosacea, dermatitis rosaceiformis. Hidradenitis suppurativa. Alopecia – cicatricial, noncicatricial. Diseases of the nails. Disorders of lips and oral mucosa. Precanceroses, Benign tumours of skin and mucous membranes. Malignant tumours of skin and mucous membranes. Specific signs of children dermatoses, Genodermatoses – disorders of keratinization, hereditary epidermolysis, palmo-plantar keratoses. Porphyrias. Masocytoses. Diseases of connective tissue. Nevi.

### **Recommended literature:**

Švecová, D., Danilla, T.: Textbook of Dermatology. UK Bratislava, 2014, 346 p

Švecová, D., Danilla, T.: Textbook of Dermatology. UK Bratislava, 2010, 344 p.

Švecová, D.: Handbook of Dermatovenerology for Practical Lessons, UK Bratislava, 2014, 167p.

#### Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 112 В A $\mathbf{C}$ D E FX 9,82 3,57 66,96 11,61 8,04 0,0

**Lecturers:** prof. MUDr. Mária Šimaljaková, PhD., prof. MUDr. Danka Švecová, PhD., doc. MUDr. Dušan Buchvald, CSc., doc. MUDr. Tibor Danilla, PhD.

**Last change:** 04.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.DK/L-VLa-070/11 Dermatovenerology 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 15s Form of the course: on-site learning

Number of credits: 3

Recommended semester: 10.

**Educational level: I.II.** 

**Prerequisites:** 

**Course requirements:** 

## **Learning outcomes:**

## Class syllabus:

Drug eruptions - etiopathogenesis, clinic of individual clinical forms.

Urticaria, oedema angioneuroticum. Eczema contactum allergicum, dermatitis contacta toxica, eczema seborrhoicum, dermatitis atopica. Varicose complex, ulcus cruris. Acne vulgaris, rosacea, dermatitis rosaceiformis. Hidradenitis suppurativa. Alopecias scaring and nonscaring. Diseases of nails. Cheilitis, lingua plicata, exfoliatio linguae areata, lingua villosa, leukoplakia. Keratosis actinica, cornu cutaneum, m.Bowen, erythroplasia, m.Paget, carcinoma basocellulare, carcinoma spinocellulare, melanoma malignum. Fibroma, haemangioma, lipoma. Characteristics of dermatoses in children. Ichthyosis, keratosis palmoplantaris, dyskeratosis follicularis. Sclerodermia, lupus erythematosus, dermatomyositis.

Pigmentary naevi, organoid naevi, naevi of sebaceous glands, vascular naevi.

#### **Recommended literature:**

Švecová, D., Osuský, P.: Dermatovenerology Handbook for Practical Lessons. Bratislava: UK, 1998, 87 p. Scriptum.

McKie, Rona, M.: Clinical Dermatology.Oxford Med.Publ., 1997, 324 p.

Braun-Falco, O.et al.: Dermatology.Berlin: Springer Verlag, 1991 (or 1996), 1235 p.

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 745

A	В	C	D	Е	FX
43,22	21,07	14,9	11,28	7,79	1,74

**Lecturers:** prof. MUDr. Mária Šimaljaková, PhD., prof. MUDr. Danka Švecová, PhD., doc. MUDr. Dušan Buchvald, CSc., doc. MUDr. Tibor Danilla, PhD., MUDr. Linda Gáborová, MUDr.

Milica Malíčková, MUDr. Martina Part, PhD., MUDr. Natália Babincová, MUDr. Martina Hertelová, MUDr. Katarína Lacková, MUDr. Alexandra Viestová

**Last change:** 02.06.2015

**Approved by:** 

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

LF/L-S-VLa-071/19

Course title:

Diploma Work 1

**Educational activities:** 

Type of activities: independent work

**Number of hours:** 

per week: per level/semester: 40s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

## **Prerequisites:**

#### **Course requirements:**

study and self-study, communication with diploma work supervisor, presentation of outcomes and their evaluation by diploma work supervisor

## **Learning outcomes:**

- to process selected topic on the level of a scientific study
- to select an appropriate scientific literature
- to apply an appropriate scientific method

## Class syllabus:

- topic selection
- aim of diploma work specification
- selection of bibliography

## **Recommended literature:**

Internal regulation CU n. 12/2013 Rector's Directive of Comenius University in Bratislava, about the basic requirements of theses and qualification works, their bibliographic registration, control of originality, about archiving and publishing at Comenius University in Bratislava Internal regulation n. 12/2013 Study regulation FM CU in Bratislava Bibliography according to the diploma work

## Languages necessary to complete the course:

## **Notes:**

## Past grade distribution

Total number of evaluated students: 113

A	В	С	D	Е	FX
91,15	4,42	1,77	0,88	1,77	0,0

#### Lecturers:

**Last change:** 04.03.2020

Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID:** Course title: LF/L-VLa-016/00 Diploma Work 1 **Educational activities:** Type of activities: independent work **Number of hours:** per week: per level/semester: 25s Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 8. **Educational level: I.II. Prerequisites: Course requirements:** study and self-study, communication with diploma work supervisor, presentation of outcomes and their evaluation by diploma work supervisor **Learning outcomes:** - to process selected topic on the level of a scientific study - to select an appropriate scientific literature - to apply an appropriate scientific method Class syllabus: - topic selection - aim of diploma work specification - selection of bibliography **Recommended literature:** Internal regulation CU n. 12/2013 Rector's Directive of Comenius University in Bratislava, about the basic requirements of theses and qualification works, their bibliographic registration, control of originality, about archiving and publishing at Comenius University in Bratislava Internal regulation n. 12/2013 Study regulation FM CU in Bratislava Bibliography according to the diploma work

## Languages necessary to complete the course:

## **Notes:**

## Past grade distribution

Total number of evaluated students: 664

A	В	С	D	E	FX
83,13	9,34	5,27	0,9	0,9	0,45

#### **Lecturers:**

**Last change:** 11.11.2016

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: Diploma Work 2

**Educational activities:** 

Type of activities: independent work

**Number of hours:** 

per week: per level/semester: 50s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 9.

**Educational level: I.II.** 

Prerequisites: LF/L-S-VLa-071/19 - Diploma Work 1

## **Course requirements:**

study and self-study, communication with diploma work supervisor, presentation of outcomes and their evaluation by diploma work supervisor

## **Learning outcomes:**

- to process selected topic on the level of a scientific study
- to select an appropriate scientific literature
- to apply an appropriate scientific method

#### Class syllabus:

- preparation and study of selected literature (research, textbooks, monographs, offprints of works in particular scientific field)
- preparation of the diploma work synopsis
- to start a process of diploma work core creation, what is the main part of diploma work

#### **Recommended literature:**

Internal regulation CU n. 12/2013 Rector's Directive of Comenius University in Bratislava, about the basic requirements of theses and qualification works, their bibliographic registration, control of originality, about archiving and publishing at Comenius University in Bratislava Internal regulation n. 12/2013 Study regulation FM CU in Bratislava

Bibliography according to the diploma work

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 172

A	В	С	D	Е	FX
86,05	5,81	5,23	1,16	1,74	0,0

#### Lecturers:

Last change: 04.03.2020

Approved by:	
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**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: Diploma Work 2

**Educational activities:** 

Type of activities: independent work

**Number of hours:** 

per week: per level/semester: 50s Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 9.

**Educational level: I.II.** 

## **Prerequisites:**

#### **Course requirements:**

study and self-study, communication with diploma work supervisor, presentation of outcomes and their evaluation by diploma work supervisor

## **Learning outcomes:**

- to process selected topic on the level of a scientific study
- to select an appropriate scientific literature
- to apply an appropriate scientific method

#### Class syllabus:

- preparation and study of selected literature (research, textbooks, monographs, offprints of works in particular scientific field)
- preparation of the diploma work synopsis
- to start a process of diploma work core creation, what is the main part of diploma work

#### **Recommended literature:**

Internal regulation CU n. 12/2013 Rector's Directive of Comenius University in Bratislava, about the basic requirements of theses and qualification works, their bibliographic registration, control of originality, about archiving and publishing at Comenius University in Bratislava Internal regulation n. 12/2013 Study regulation FM CU in Bratislava

Bibliography according to the diploma work

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 595

A	В	С	D	Е	FX
76,64	10,76	6,39	1,51	4,2	0,5

#### Lecturers:

**Last change:** 11.11.2016

Approved by:		
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University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: Diploma Work 3

**Educational activities:** 

Type of activities: independent work

**Number of hours:** 

per week: per level/semester: 50s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level:** I.II.

Prerequisites: LF/L-S-VLa-072/19 - Diploma Work 2

## **Course requirements:**

study and self-study, communication with diploma work supervisor, presentation of outcomes and their evaluation by diploma work supervisor

## **Learning outcomes:**

- to process selected topic on the level of a scientific study
- to select an appropriate scientific literature
- to apply an appropriate scientific method

## Class syllabus:

- diploma work core creation
- division into chapters, subchapters
- preparation of introduction
- preparation of conclusion
- bibliography

#### **Recommended literature:**

Internal regulation CU n. 12/2013 Rector's Directive of Comenius University in Bratislava, about the basic requirements of theses and qualification works, their bibliographic registration, control of originality, about archiving and publishing at Comenius University in Bratislava

Internal regulation n. 12/2013 Study regulation FM CU in Bratislava

Bibliography according to the diploma work

## Languages necessary to complete the course:

## **Notes:**

### Past grade distribution

Total number of evaluated students: 109

A	В	С	D	Е	FX
83,49	6,42	7,34	0,92	1,83	0,0

## Lecturers:

Last change: 04.03.2020

Approved by:	
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**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: Diploma Work 3

**Educational activities:** 

Type of activities: independent work

**Number of hours:** 

per week: per level/semester: 50s Form of the course: on-site learning

Number of credits: 3

Recommended semester: 10.

**Educational level: I.II.** 

## **Prerequisites:**

#### **Course requirements:**

study and self-study, communication with diploma work supervisor, presentation of outcomes and their evaluation by diploma work supervisor

## **Learning outcomes:**

- to process selected topic on the level of a scientific study
- to select an appropriate scientific literature
- to apply an appropriate scientific method

## Class syllabus:

- diploma work core creation
- division into chapters, subchapters
- preparation of introduction
- preparation of conclusion
- bibliography

#### **Recommended literature:**

Internal regulation CU n. 12/2013 Rector's Directive of Comenius University in Bratislava, about the basic requirements of theses and qualification works, their bibliographic registration, control of originality, about archiving and publishing at Comenius University in Bratislava

Internal regulation n. 12/2013 Study regulation FM CU in Bratislava

Bibliography according to the diploma work

## Languages necessary to complete the course:

## Notes:

### Past grade distribution

Total number of evaluated students: 594

A	В	С	D	Е	FX
78,96	10,27	6,57	1,35	2,19	0,67

## Lecturers:

**Last change:** 11.11.2016

Approved by:	
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University: Comenius University in Bratislava								
Faculty: Facult	Faculty: Faculty of Medicine							
Course ID: LF/L-S-VLa-07								
Number of ho per week: p	ties: independen	er: 100s						
Number of cree	dits: 3							
Recommended	semester: 11.							
Educational lev	el: I.II.							
Prerequisites: I	LF/L-S-VLa-073	/19 - Diploma W	ork 3					
Course require	ments:							
Learning outco	Learning outcomes:							
Class syllabus:								
Recommended	literature:							
Languages nec	essary to compl	ete the course:						
Notes:								
Past grade distribution Total number of evaluated students: 212								
A								
83,96 7,55 4,25 1,89 2,36 0,0								
Lecturers:								
Last change:								
Approved by:	,							

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚLFBIT/L-S-VLa-121/19 | Electromagnetic methods in medicine

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s
Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level: I.II.** 

## **Prerequisites:**

#### **Course requirements:**

100 % participation in lectures and exercises

Written test at least 60 %

Test evaluation: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % or less Oral examination

The overall assessment is determined from the average of the evaluations obtained.

## Learning outcomes:

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.

#### Class syllabus:

Course syllabus summary:

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:**

- 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 selected chapters
- HRAZDIRA, I., MORNSTEIN, V., BOUREK, A., ŠKORPÍKOVÁ, J. Fundamentals of Biophysics and Medical Technology. Brno: MU Brno, 2012, 326 p. ISBN 9788021057586 selected chapters
- JIRÁK, D., VÍTEK, F. Basics of Medical Biophysics. Prague : Charles University, Karolinum Press, 2017, 224 p. ISBN 978-80-246-3810-2 selected chapters
- Lectures on the MEFANET portal section Biophysics (http://portal.fmed.uniba.sk/).
- Blended e-course (www.moja.uniba.sk).
- Other innovated printed and internet sources available.

### Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 0

A	В	С	D	Е	FX
0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Mgr. Katarína Kozlíková, CSc.

Last change: 04.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: Epidemiology

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 24s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 9., 10..

**Educational level: I.II.** 

## **Prerequisites:**

#### **Course requirements:**

100% participation on practical lessons + success in exam by:

- achieving at least limit test points to 65% is proceeding to the oral examination.

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65%, Fx: 59 % and less

- theoretic part – 3 questions (general epidemiology, special epidemiology, epidemiology of chronic civilization diseases)

Total evaluation is determined from the mean value of acquired points of both parts of the exam.

#### **Learning outcomes:**

Knowledge: Basic knowledge about epidemic process, occurrence and distribution of infectious diseases and chronic non-communicable diseases with high incidence in Slovakia and worldwide. Knowledge about appearance and spread of nosocomial infections and importance of hygienic – epidemiologic regimen and the role of disinfection and sterilisation in introduction of measures and prevention.

Basic principles of vaccinology and important role of vaccines in disease prevention.

Prevalence of the most important risk factors contributed to disease occurrence and possibility to prevent diseases by lowering exposure and by elimination of these factors.

Orientation in some national, WHO and ECDC programmes combating against infections and non-communicable civilisation diseases in the view of their control, elimination or even eradication. Knowledge of crucial relevant regulations in Slovak Republic in prevention of the most serious diseases.

Skills: Basic cognitive logic skills in investigation of epidemic occurrence by collection of valid data, by their analysis and by evaluation of risk exposure using knowledge from several medical disciplines for proposal of measures, including measures targeted on contacts of the source of infection. Cognitive skills of using various methods in study of risk determinants of chronic diseases for primary and secondary prevention as well as for prognosis. Intuitive thinking for evaluation of risks for disease prevention. Practical skills in investigation and analysis of epidemics, using epidemiologic methods (descriptive, analytic, experimental) and surveillance for evaluation of disease occurrence and prevention of communicable diseases and chronic civilization diseases.

## Class syllabus:

Epidemiology, goals, health and social importance of the discipline. Basic epidemiologic methods, causality. Descriptive method, analytic method, experimental epidemiology, surveillance.

Sources of infections in the light of evolution of parasitism of microorganisms, forms of reservoirs, their characteristics, importance of epidemiologic measures. Mechanisms of transmission, phases and forms. Classification of infectious diseases, basic groups, intestinal infections, air-borne infections, arthropod-borne infections, infections of skin and surface mucosae, zoonoses, nosocomial infections - general characteristics. Epidemic process, its essential conditions and characteristics. Significance of natural and social factors. Principles of modern approaches of control of communicable diseases – containment of sources, interruption of transmission. Measures of prevention. Measures in the focus of infection. Protection of susceptible population. Specific prophylaxis. Passive and active immunisation. Decontamination: disinfection, sterilisation, disinsection, rodent control. Information systems. Basic epidemiologic characteristics of cardiovascular (including cerebrovascular diseases), cancers, chronic diseases of respiratory tract and diabetes.

### Recommended literature:

Špaleková, M. (Ed.): EPIDEMIOLOGY FOR STUDY OF PUBLIC HEALTH - Vol. 1, 1. vydanie, Comenius University in Bratislava, 2015, 162 s, ISBN: 978-80-223-3933-9 Špaleková, M. (Ed.): EPIDEMIOLOGY FOR STUDY OF PUBLIC HEALTH - Vol. 2, 1. vydanie, Comenius University in Bratislava, 2015, 86 s, ISBN: 978-80-223-3934-6

## Languages necessary to complete the course:

#### Notes:

## Past grade distribution

Total number of evaluated students: 961

A	В	С	D	Е	FX
33,4	24,45	14,57	14,05	11,55	1,98

**Lecturers:** doc. MUDr. Margita Špaleková, CSc., doc. MUDr. Alexandra Bražinová, PhD., MPH, MUDr. Mgr. Miriam Fulová, PhD., Mgr. Martina Kotrbancová, PhD., RNDr. Jana Perželová, PhD., doc. MUDr. Branislav Vohnout, PhD., MUDr. Vanda Výrosteková, CSc.

Last change: 07.12.2016

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: First Aid

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 9s / 9s Form of the course: on-site learning

Number of credits: 1

**Recommended semester:** 1.

**Educational level: I.II.** 

## **Prerequisites:**

## **Course requirements:**

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.

## **Learning outcomes:**

## KNOWLEDGE:

- 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

#### SKILLS:

- practical basic life support, basics of wound care, transportation of the injured. Manipulation with automatic external defibrillator.

#### Class syllabus:

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.

## **Recommended literature:**

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

#### Languages necessary to complete the course:

#### Notes:

Past grade distribution							
Total number of evaluated students: 598							
A	В	С	D	Е	FX		
24,75	29,26	22,91	15,38	7,53	0,17		

**Lecturers:** prof. MUDr. Oto Masár, CSc., PhDr. Hana Belejová, PhD., MUDr. Ireneusz Przewlocki, PhD., PhDr. Dušan Sysel, PhD., MUDr. Teodor Bachleda, PhD., MBA

**Last change:** 04.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚSL/L-VLa-080/09 Forensic Medicine

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 25s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 9., 10..

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

100% participation at practicals

Exam: written test - minimum 60%

theoretical part - 3 questions

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

Total score is determined from the average of ratings received

# **Learning outcomes:**

# Knowledge:

- 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

#### Class syllabus:

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.

## **Recommended literature:**

Soudní lékařství a jeho moderní trendy.

Jiří Štefan, Jiří Hladík a kolektiv. Praha, Grada Publishing, 2012.

Simpson's Forensic Medicine.

Jason Payne – James, Richard Jones, Steven B Karch, John Manlove. London, Hodder Arnold, 2011.

Soudní lékařství a toxikologie pro vojenské lékaře.

Miloš Sokol, Michal Dogoši, Josef Fusek. Hradec Králové, Univerzita obrany, 2010.

Soudní lékařství.

Michal Dogoši. Bratislava, Bratislavská vysoká škola práva, 2008.

## Languages necessary to complete the course:

## **Notes:**

# Past grade distribution

Total number of evaluated students: 910

A	В	С	D	Е	FX
60,66	23,63	10,66	3,85	1,21	0,0

**Lecturers:** Dr.h.c. prof. MUDr. Štefan Galbavý, DrSc., doc. MUDr. Jozef Šidlo, PhD., MUDr. Norbert Moravanský, PhD., MUDr. JUDr. Anežka Zummerová, PhD., MUDr. Andrea Szórádová, MUDr. Dana Kutišová

Last change: 22.12.2016

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF.APK/L-S-VLa-069/19 General Medicine **Educational activities:** Type of activities: lecture / practicals **Number of hours:** per week: per level/semester: 10s / 5s Form of the course: on-site learning Number of credits: 2 Recommended semester: 9., 10.. **Educational level:** I.II. Prerequisites: LF. ÚFKF/L-S-VLa-012/19 - Pharmacology 2 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 105 Α В  $\mathbf{C}$ D Е FX 20,0 22,86 36,19 12,38 8,57 0,0 Lecturers: MUDr. Beata Špániková, PhD. Last change: Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.KG1/L-S-VLa-124/19 Geriatrics

**Educational activities: Type of activities:** lecture

**Number of hours:** 

per week: per level/semester: 24s
Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level: I.II.** 

**Prerequisites:** 

**Course requirements:** 

# **Learning outcomes:**

## Class syllabus:

- What does it mean geriatrics and gerontology.
- Consumers of the geriatric care: demography in EU and worldwide.
- Theoretical background of geriatrics and gerontology: classification of the age, biological and chronological age, theories and mechanisms of ageing, physiological and pathological ageing.
- Ageing and physiological functions e.g. sensuality, sleep, sexuality. Estimation of the functional status of a senior.
- Communication with a (sick) senior.
- Specific features in a disease course in seniors (generally and in the most prevalent diseases in advanced age).
- Geriatric giants.
- Specific features of diagnostics in seniors.
- Pharmacotherapy in advanced age.
- Care givers who have to deliver the care to the sick senior.
- Relationship between social aspects and health in seniors.

# **Recommended literature:**

#### Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 2

A	В	С	D	Е	FX
50,0	0,0	50,0	0,0	0,0	0,0

Lecturers: doc. MUDr. Martin Dúbrava, CSc.

Last change: 04.03.2020

Approved by:	
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**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.GPK2/L-S-VLa-125-4/19 | Gynaecological Oncology

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

full signed presence on the lectures, written test results minimally 60%, evaluation of the test: A: 91-100%, B: 81-91%, C: 73-80%, D: 66-72%, E: 60-65%, Fx: 59% and less

# **Learning outcomes:**

Knowledges – Obtaining up-to date informations of gynecological oncology. After successful passing of the course the student will be able to use diagnostic methods in gynecological oncology and also the modalities of the therapy. The absolvent will also be able to use the screening methods and early diagnostics of precanceroses.

Skills: The absolvent will be able to perform basic routine diagnostic methods in gynecological oncology, will be familiar in assistances by the oncogynecological surgery and invasive bioptical methods. After completing the course the absolvent will be able to perform also the imaging diagnostic methods like ultrosonography and colposcopy.

#### Class syllabus:

Introduction of the topic (history of gynecological oncology, screening programme, follow-up principles, obligatory reporting of the oncological diagnoses and oncological register). Non invasive prebioptical diagnostic methods (the role of the ultrasonography like diagnostic method of the female genital tract pathologies, the role of the colposcopy by the cervical carcinoma diagnostics, colposcopical images of the precanceroses, oncological cytology – taking the samples and clinical evaluation of the results, oncomarkers of the gynecological malignities etc.) Invasive prebioptical procedures (the use in the diagnostics of each gynecological malignities, hysteroscopy – its indications, taking the bioptical samples, concrete hysteroscopical findings and the validity in the oncogynecological diagnostics meaning, laparoscopy - indications and the use in oncogynecology, fine needle aspiration cytology and core cut biopsy in the oncological diagnostics of the breast patologies)

Lectures: Malignant diseases of the cervix. Malignant diseases of the uterus. Malignant diseases of the ovaria and uterine tubes. Malignant diseases of the breast. Malignant diseases of the vagina and vulva. The importance of the ultrasonography in the gynecological oncology diagnostics. The oncological programme, the "fight" agains the cancer, dispensarisation, screening, treatment, centralisation, follow-up. Obligatory reporting of the oncological diseases in oncogynecology.

Non invasive prebioptical examination methods - morphological, endoscopical, imaging. Invasive prebioptical methods - practicals.

## **Recommended literature:**

MONGA, A. and DOBSS, S.P. gynecology by ten teachers. 19th ed. Oxford University Press, 2011, 224p ISBN 978-0340983546.

BAKER, P.N. and KENNY,L. Obstetrics by ten teachers. 19th ed. Oxford University Press, 2011. 352 p. ISBN 978-0340983539.

# Languages necessary to complete the course:

## **Notes:**

# Past grade distribution

Total number of evaluated students: 35

A	В	С	D	Е	FX
97,14	2,86	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Kamil Pohlodek, PhD., prof. MUDr. Karol Holomáň, CSc., prof. MUDr. Pavel Šuška, PhD., doc. MUDr. Vladimír Ferianec, PhD., doc. MUDr. Ivan Hollý, CSc., doc. MUDr. Martin Šimko, PhD.

**Last change:** 04.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.GPK2/L-S-VLa-125-5/19 | Gynaecological Oncology

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s
Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

full signed presence on the lectures, written test results minimally 60%, evaluation of the test: A: 91-100%, B: 81-91%, C: 73-80%, D: 66-72%, E: 60-65%, Fx: 59% and less

# **Learning outcomes:**

Knowledges – Obtaining up-to date informations of gynecological oncology. After successful passing of the course the student will be able to use diagnostic methods in gynecological oncology and also the modalities of the therapy. The absolvent will also be able to use the screening methods and early diagnostics of precanceroses.

Skills: The absolvent will be able to perform basic routine diagnostic methods in gynecological oncology, will be familiar in assistances by the oncogynecological surgery and invasive bioptical methods. After completing the course the absolvent will be able to perform also the imaging diagnostic methods like ultrosonography and colposcopy.

#### Class syllabus:

Introduction of the topic (history of gynecological oncology, screening programme, follow-up principles, obligatory reporting of the oncological diagnoses and oncological register). Non invasive prebioptical diagnostic methods (the role of the ultrasonography like diagnostic method of the female genital tract pathologies, the role of the colposcopy by the cervical carcinoma diagnostics, colposcopical images of the precanceroses, oncological cytology – taking the samples and clinical evaluation of the results, oncomarkers of the gynecological malignities etc.) Invasive prebioptical procedures (the use in the diagnostics of each gynecological malignities, hysteroscopy – its indications, taking the bioptical samples, concrete hysteroscopical findings and the validity in the oncogynecological diagnostics meaning, laparoscopy - indications and the use in oncogynecology, fine needle aspiration cytology and core cut biopsy in the oncological diagnostics of the breast patologies)

Lectures: Malignant diseases of the cervix. Malignant diseases of the uterus. Malignant diseases of the ovaria and uterine tubes. Malignant diseases of the breast. Malignant diseases of the vagina and vulva. The importance of the ultrasonography in the gynecological oncology diagnostics. The oncological programme, the "fight" agains the cancer, dispensarisation, screening, treatment, centralisation, follow-up. Obligatory reporting of the oncological diseases in oncogynecology.

Non invasive prebioptical examination methods - morphological, endoscopical, imaging. Invasive prebioptical methods - practicals.

## **Recommended literature:**

MONGA, A. and DOBSS, S.P. gynecology by ten teachers. 19th ed. Oxford University Press, 2011, 224p ISBN 978-0340983546.

BAKER, P.N. and KENNY,L. Obstetrics by ten teachers. 19th ed. Oxford University Press, 2011. 352 p. ISBN 978-0340983539.

# Languages necessary to complete the course:

## **Notes:**

# Past grade distribution

Total number of evaluated students: 3

A	В	С	D	Е	FX
66,67	33,33	0,0	0,0	0,0	0,0

**Lecturers:** prof. MUDr. Kamil Pohlodek, PhD., prof. MUDr. Karol Holomáň, CSc., prof. MUDr. Pavel Šuška, PhD., doc. MUDr. Vladimír Ferianec, PhD., doc. MUDr. Ivan Hollý, CSc., doc. MUDr. Martin Šimko, PhD.

**Last change:** 04.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

LF.GPK2/L-VLa-096/00

Course title:

Gynaecological Oncology

Educational activities:
Type of activities: lecture
Number of hours:

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level:** I.II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 193

A	В	С	D	Е	FX
47,15	29,53	12,44	4,15	5,18	1,55

**Lecturers:** prof. MUDr. Karol Holomáň, CSc., prof. MUDr. Pavel Šuška, PhD., doc. MUDr. Marián Križko, CSc., prof. MUDr. Kamil Pohlodek, PhD., doc. MUDr. Martin Šimko, PhD., doc. MUDr. Ivan Hollý, CSc., doc. MUDr. Vladimír Ferianec, PhD.

Last change: 02.06.2015

Approved by:

# STATE EXAM DESCRIPTION

University: Comenius University in Bratislava						
Faculty: Faculty of Medicine	Faculty: Faculty of Medicine					
Course ID: Course title:  LF.GPK1/L-VLa-ŠS-1/15 Gynaecology and Obstetrics						
Number of credits: 2						
Recommended semester: 11.,	12					
Educational level: I.II.						
State exam syllabus:						
Last change:						
Approved by:						

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.GPK1/L-VLa-072/11 Gynaecology and Obstetrics 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 35s Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 9.

**Educational level: I.II.** 

**Prerequisites:** 

# **Course requirements:**

100% attendance on practicals

Pass the final test (minimum 60 %)

Evaluation of the test:

A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less

# **Learning outcomes:**

Theoretical knowledge:

- 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 genitla tract
- family planning and contraception
- fertilization and the development of fertilased ovum
- physiological process of the pregnancy, labour and puerperium

Practical skills:

- 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

# Class syllabus:

Gynaecology:

- The history of gynaecology and obstetrics
- Anathomy of femal genital tract

The anatomy of external and internal female genital tract

The development and congenital developmental abnormalities of female genital tract

- Menstrual cycle physiology and abnormalities
- Life periods in womans life
- Examination methods in Gynaecology and Obstetrics

- Sexual life of women and its abnormalities
- Family planing and contraception
- Inflamation of female genital tract

#### Obstetrics:

- Physiological pregnancy
- Puerperium
- Vaginal labour

Physiological labour - occipital presentation

# Breech position

- Complication of duration of labour
- Risk and pathological pregnancy
- Iregularities of fertilised ovum / Early pregnancy complication
- Management of the fetus during pregnancy

#### **Recommended literature:**

- 1. Monga, A. et al.: Gynecology by ten Teachers. 19th ed. Oxford University Press, 2011. 224 p. ISBN 978-0340983546
- 2. Baker, P.N. et al.: Obstetrics by ten Teachers. 19th ed. Oxford University Press, 2011. 352 p. ISBN 978-0340983539
- 3. Binder, T. a kol. Porodnictví. Karolinum, Praha 2012. 297 s. ISBN 978-80-246-1907-1
- 4. Rob, L. a kol.: Gynekologie, 2. dopl. a přepr. vyd. Galén, Praha 2008. 319 s. ISBN 978-80-7262-501-7
- 5. Roztočil, A.: Moderní porodnictví. Grada, Praha 2008. 408 s. ISBN 978-80-247-1941-2
- 6. Holomáň, K. a kol.: Vybrané kapitoly z pôrodníctva. 2. vyd. Bratislava, Univerzita Komenského 2007. 212 s. ISBN 978-80-223-2286-7
- 7. Čech, E. a kol.: Porodnictví. Grada, Praha 2006. 546 s. ISBN 80-247-1303-9
- 8. Šuška, P. a kol.: Vybrané kapitoly z gynekológie. Bratislava, Univerzita Komenského 2003. 254 s. ISBN 80-223-1818-3

## Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 913

A	В	С	D	Е	FX
76,01	18,84	3,83	0,55	0,77	0,0

Lecturers: prof. MUDr. Miroslav Borovský, CSc., prof. MUDr. Karol Holomáň, CSc., prof. MUDr. Pavel Šuška, PhD., doc. MUDr. Ján Chabada, CSc., doc. MUDr. Ivan Hollý, CSc., doc. MUDr. Miroslav Korbeľ, CSc., doc. MUDr. Marián Križko, CSc., prof. MUDr. Kamil Pohlodek, PhD., doc. MUDr. Martin Redecha, PhD., doc. MUDr. Martin Šimko, PhD., doc. MUDr. Peter Štencl, CSc., prof. MUDr. Jozef Záhumenský, PhD., MUDr. Rastislav Sysák, PhD., MUDr. Monika Borošová, MUDr. Petra Oťapková, PhD., doc. MUDr. Vladimír Ferianec, PhD., MUDr. Martin Gábor, PhD., MUDr. Júlia Hederlingová, PhD., MUDr. Juraj Drobný, PhD., doc. MUDr. Alexandra Krištúfková, PhD., MUDr. Zuzana Nižňanská, PhD.

Last change: 24.11.2016

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.GPK1/L-VLa-073/11 Gynaecology and Obstetrics 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 35s Form of the course: on-site learning

**Number of credits: 3** 

Recommended semester: 10.

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

100% attendance on practicals

Pass the final test (minimum 60 %)

Evaluation of the test:

A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %, Fx: 59 % and less

# **Learning outcomes:**

Theoretical knowledge:

- 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 adolescenta gynaecological diseases
- Theoretical knowledge about basi gynaecological and obstetric surgerical procedures
- Pathological pregnancy, labour and puerperium
- Birth injuries clasification, managment and complication

#### Practical skills:

- 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)
- Assit by small gynaeological surgeries (curettage, conisation, termination of pregnancy/evacuation of uterine cavity after incomplete I.trimester abortion)

## Class syllabus:

## Gynaecology:

- Endometriosis
- Female genital tract tumors
- Breast diseases
- Iregular positions of female genital organs
- Infertile couple
- Child and adolescent gynaecology

- Gynaecological urology / urogynaecology
- Emergencies in gynaecology
- Basic gynaecology surgeries

#### Obstetrics:

- Iregular positions of fetus
- Irregularities of birth mechanism, deflexion of the fetus head
- Emergencies from side of fetus during the labour
- Irregularities of the III. stage of the labour
- Birth injuries
- Pathology of puerperium
- Emergencies in obstetrics / Maternal deaths
- Basic obstetric surgeries

#### **Recommended literature:**

- 1. Monga, A. et al.: Gynecology by ten Teachers. 19th ed. Oxford University Press, 2011. 224 p. ISBN 978-0340983546
- 2. Baker, P.N. et al.: Obstetrics by ten Teachers. 19th ed. Oxford University Press, 2011. 352 p. ISBN 978-0340983539
- 3. Binder, T. a kol. Porodnictví. Karolinum, Praha 2012. 297 s. ISBN 978-80-246-1907-1
- 4. Rob, L. a kol.: Gynekologie, 2. dopl. a přepr. vyd. Galén, Praha 2008. 319 s. ISBN 978-80-7262-501-7
- 5. Roztočil, A.: Moderní porodnictví. Grada, Praha 2008. 408 s. ISBN 978-80-247-1941-2
- 6. Holomáň, K. a kol.: Vybrané kapitoly z pôrodníctva. 2. vyd. Bratislava, Univerzita Komenského 2007. 212 s. ISBN 978-80-223-2286-7
- 7. Čech, E. a kol.: Porodnictví. Grada, Praha 2006. 546 s. ISBN 80-247-1303-9
- 8. Šuška, P. a kol.: Vybrané kapitoly z gynekológie. Bratislava, Univerzita Komenského 2003. 254 s. ISBN 80-223-1818-3

# Languages necessary to complete the course:

#### Notes:

#### Past grade distribution

Total number of evaluated students: 880

A	В	С	D	Е	FX
88,41	9,2	1,36	0,57	0,45	0,0

Lecturers: prof. MUDr. Miroslav Borovský, CSc., prof. MUDr. Karol Holomáň, CSc., prof. MUDr. Pavel Šuška, PhD., doc. MUDr. Ivan Hollý, CSc., doc. MUDr. Ján Chabada, CSc., doc. MUDr. Miroslav Korbeľ, CSc., doc. MUDr. Marián Križko, CSc., prof. MUDr. Kamil Pohlodek, PhD., doc. MUDr. Martin Redecha, PhD., doc. MUDr. Martin Šimko, PhD., doc. MUDr. Peter Štencl, CSc., prof. MUDr. Jozef Záhumenský, PhD., MUDr. Rastislav Sysák, PhD., MUDr. Monika Borošová, MUDr. Petra Oťapková, PhD., doc. MUDr. Vladimír Ferianec, PhD., MUDr. Martin Gábor, PhD., MUDr. Júlia Hederlingová, PhD., MUDr. Juraj Drobný, PhD., doc. MUDr. Alexandra Krištúfková, PhD., MUDr. Zuzana Nižňanská, PhD.

**Last change: 24.11.2016** 

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.GPK1/L-S-VLa-017/19 Gynaecology and Obstetrics 3

**Educational activities:** 

Type of activities: seminar / practicals

**Number of hours:** 

per week: per level/semester: 18s / 54s Form of the course: on-site learning

Number of credits: 4

Recommended semester: 11., 12..

**Educational level: I.II.** 

Prerequisites: LF.GPK1/L-S-VLa-016/20 - Gynaecology and Obstetrics 2

#### **Course requirements:**

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

o theoretical part: 3 questions (in diferent topics of gynaecology and obstetrics)

## **Learning outcomes:**

Theoretical knowledge:

- o theoretical knowledge about diferential diagnosis and management of emergencies in gynaecology and obstetricsa
- o theoretical knowledge about maternofetal medicine
- o basics in diferential diagnosis in gynaecology
- o theoretical basics in radiological methods used in gynaecology and obstetrics
- o the problems of marginal medical specialisation in the the relation to the gynaecology and obstetrics
- o ethical aspects in gynaecology and obstetricsa
- o management and resuscitation of newborn
- Practical 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

## Class syllabus:

During the practicals before the state exams medical students act as secondary doctors at the department. The aim is their improvement if 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 assists at the operation theatre at gynaeological and obstetrical surgeries. They attend on the day-to-day practice on the outpatient department and acquire knowledge in the subspecialised

## **Recommended literature:**

- 1. Monga, A. et al.: Gynecology by ten Teachers. 19th ed. Oxford University Press, 2011. 224 p. ISBN 978-0340983546
- 2. Baker, P.N. et al.: Obstetrics by ten Teachers. 19th ed. Oxford University Press, 2011. 352 p. ISBN 978-0340983539
- 3. Binder, T. a kol. Porodnictví. Karolinum, Praha 2012. 297 s. ISBN 978-80-246-1907-1
- 4. Rob, L. a kol.: Gynekologie, 2. dopl. a přepr. vyd. Galén, Praha 2008. 319 s. ISBN 978-80-7262-501-7
- 5. Roztočil, A.: Moderní porodnictví. Grada, Praha 2008. 408 s. ISBN 978-80-247-1941-2
- 6. Holomáň, K. a kol.: Vybrané kapitoly z pôrodníctva. 2. vyd. Bratislava, Univerzita Komenského 2007. 212 s. ISBN 978-80-223-2286-7
- 7. Čech, E. a kol.: Porodnictví. Grada, Praha 2006. 546 s. ISBN 80-247-1303-9
- 8. Šuška, P. a kol.: Vybrané kapitoly z gynekológie. Bratislava, Univerzita Komenského 2003. 254 s. ISBN 80-223-1818-3

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 220

A	В	С	D	Е	FX
85,0	7,27	5,0	1,82	0,45	0,45

**Lecturers:** prof. MUDr. Miroslav Borovský, CSc., MUDr. Rastislav Sysák, PhD., doc. MUDr. Peter Štencl, CSc., doc. MUDr. Miroslav Korbel', CSc., doc. MUDr. Martin Redecha, PhD., prof. MUDr. Kamil Pohlodek, PhD., prof. MUDr. Pavel Šuška, PhD., doc. MUDr. Ivan Hollý, CSc., prof. MUDr. Jozef Záhumenský, PhD., prof. MUDr. Karol Holomáň, CSc.

Last change: 11.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.GPK1/L-VLa-121/16 Gynaecology and Obstetrics – practice

**Educational activities:** 

Type of activities: practice

**Number of hours:** 

per week: per level/semester: 80s Form of the course: on-site learning

Number of credits: 3

Recommended semester: 10.

**Educational level: I.II.** 

**Prerequisites:** 

#### **Course requirements:**

100% attendance on practicals

# **Learning outcomes:**

Theoretical knowledge:

acquaintance with the day-to-day work at the gynaecological-obstetric department acquaintance with parmacological treatment in gynaecology and obstetrics acquaintance with pre-operative and post-operative care by patient in gynaecology and obstetrics acquaintance of knowledge of asepsis and antisepsis

Practical skills:

to conduct 2 physiological labours

assistance by gynaecological and obstetrical surgeries

the management of the patient documentation in gynaecology and obstetrics observing of the labour and puerperium

## Class syllabus:

- 1. acquaintance of the organisation of the work at the gynaecological and obstetrical depertment
- 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

# **Recommended literature:**

- 1. Monga, A. et al.: Gynecology by ten Teachers. 19th ed. Oxford University Press, 2011. 224 p. ISBN 978-0340983546
- 2. Baker, P.N. et al.: Obstetrics by ten Teachers. 19th ed. Oxford University Press, 2011. 352 p. ISBN 978-0340983539
- 3. Binder, T. a kol. Porodnictví. Karolinum, Praha 2012. 297 s. ISBN 978-80-246-1907-1
- 4. Rob, L. a kol.: Gynekologie, 2. dopl. a přepr. vyd. Galén, Praha 2008. 319 s. ISBN 978-80-7262-501-7
- 5. Roztočil, A.: Moderní porodnictví. Grada, Praha 2008. 408 s. ISBN 978-80-247-1941-2
- 6. Holomáň, K. a kol.: Vybrané kapitoly z pôrodníctva. 2. vyd. Bratislava, Univerzita Komenského 2007. 212 s. ISBN 978-80-223-2286-7

7. Čech, E. a kol.: Porodnictví. Grada, Praha 2006. 546 s. ISBN 80-247-1303-9
Šuška, P. a kol.: Vybrané kapitoly z gynekológie. Bratislava, Univerzita Komenského 2003. 254
s. ISBN 80-223-1818-3

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 391

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100,0

Lecturers: prof. MUDr. Miroslav Borovský, CSc., prof. MUDr. Karol Holomáň, CSc., prof. MUDr. Pavel Šuška, PhD., prof. MUDr. Jozef Záhumenský, PhD.

Last change: 24.11.2016

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚHE/L-S-VLa-018/16 Histology and Embryology 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 28s / 38s Form of the course: on-site learning

**Number of credits:** 6

Recommended semester: 2.

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

Active attending of lectures and practical exercises. 100% presence on practicals (laboratory exercises). Two partial tests during semester, in failure, an additional final test. Average value of either partial tests or final test: minimum threshold of success: 60%. Evaluation: A: 95% -100%, B: 88% -94% C: 77% -87%, D: 66% -76%, E:60% -65%

# **Learning outcomes:**

# Knowledge:

Histology is the branch of science that centers on the microscopic morphology (structure) of cells, tissues and organs within the organism. The study of histology allows medical students to acquire knowledge of the microscopic structure of cells, tissues and organs of normal human body. Knowledge forms the bases for the study of Physiology and Pathology.

The aim of the first course of Histology and Embryology is the knowledge about cytology (cell biology), histological technique and general histology (4 types of tissues).

### Skills:

Observation and study of tissue structures at light and electron microscopic levels; study of the relationship between tissue structure and function. Practical knowledge about microscopic differences between different types of human tissues.

#### Class syllabus:

Overview of methods used in histology. Light and electron microscopy. Preparation of histological sections for light microscopy. Common stains used for light microscopy. Histochemistry and immunohistochemistry. The functional structure of the different components of the cell. Cell cycle. Epithelial tissue (characteristics, classifications, types and the common sites of each type). The structure of the cell junctions and the basement membrane. Connective tissue proper. Fixed and free cells of connective tissue proper. Extracellular matrix: fibers and ground substance. The types of connective tissues. Functional morphology and clinical significance of blood elements (red blood cells, white blood cells, platelets). Bone marrow and hemopoiesis. Cartilage and Bone. Intramembranous and endochondral ossification. Growth of bone. Repair of bone after fracture. Microscopic structure of synovial joints. Muscle tissue. Functional histology of skeletal, smooth and cardiac muscles. Ultrastructure of skeletal muscle fibers. Impulse conductive system of the heart. Nervous tissue. Neurons and neuroglia. Functional ultrastructure of neurons and supporting

glial cells. Synapses. Microscopic structure of the gray and white mater. Microscopic structure of the circulatory system (heart, blood and lymph vessels).

#### **Recommended literature:**

Histology:

Pawlina W. Histology. A Text and Atlas with Correlated Cell and Molecular Biology. 7th Edition. Philadelphia: Wolter Kluwer Health, 2016, 984 pp.

Kierszenbaum AL, Tres LL. Histology and Cell Biology. An Introduction to Pathology. Fourth Edition. Philadelphia: Elsevier Saunders, 2016. 734 pp.

Adamkov M. (Ed). Introduction to Functional Histology. Textbook. Second Revised and Updated Edition. Martin: P+M Turany 2013, 425 pp.

Gartner LP, Hiatt JL. Color Atlas and Text of Histology. Philadelphia: Wolters Kluwer Lippincott Williams a Wilkins 2014, 525 pp.

Mescher AL. Junqueira's Basic Histology. Text and Atlas. 14th Edition. New York, McGraw-Hill Education 2016, 560 pp.

Eroschenko VP. diFiore's Atlas of Histology with Functional Correlations. Twelfth Edition.

Philadelphia: Lippincott Williams a Wilkins 2013, 603 pp.

Embryology:

Schoenwolf GC, Bleyl SB, Brauer PR, Francis-West PH. Larsen's Human Embryology. Fifth Edition. Philadelphia: Elsevier Churchill Livingstone. 2015. 554p.

Moore KL, Persaud TVN, Torchia MG. The Developing Human. Clinically Oriented Embryology. 10th Edition. Philadelphia: Elsevier 2016, 524 pp.

Carlson B. Human Embryology and Developmental Biology. Fifth Edition. Philadelphia: Elsevier Saunders 2014, 506 pp.

Sadler TW. Langman's Medical Embryology. Twelfth Edition. Philadelphia: Wolters Kluwer Lippincott Williams a Wilkins 2012, 384 pp.

# Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 928

A	В	С	D	Е	FX
25,97	11,85	20,47	14,22	25,97	1,51

Lecturers: prof. MUDr. Štefan Polák, CSc., prof. RNDr. Ivan Varga, PhD., MUDr. Paulína Gálfiová, PhD., MVDr. Ján Líška, CSc., MUDr. Peter Michalka, PhD., MUDr. Mgr. Michal Miko, PhD., MUDr. Renáta Mikušová, PhD., MUDr. Simona Polakovičová, PhD., MUDr. Vanda Rísová, PhD., Mgr. Michaela Vrabcová, PhD., RNDr. Mária Csöbönyeiová, PhD., Mgr. Miroslava Juríková, PhD., MUDr. Martin Klein, MUDr. Mária Lorencová, PhD., MUDr. Abdolreza Majidi

Last change: 08.12.2016

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚHE/L-S-VLa-019/17 Histology and Embryology 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 28s / 38s Form of the course: on-site learning

Number of credits: 7

**Recommended semester: 3.** 

**Educational level:** I.II.

**Prerequisites:** LF.ÚHE/L-S-VLa-018/16 - Histology and Embryology 1

# **Course requirements:**

Active attending of lectures and practical exercises. 100% presence on practicals (laboratory exercises). Two partial tests during semester, in failure, an additional final test. Average value of either partial tests or final test: minimum threshold of success: 60%. Evaluation: A: 95% -100%, B: 88% -94% C: 77% -87%, D: 66% -76%, E:60% -65%

Final Examination:

Practical part – evaluation and recognition of 10 undescribed histological slides from different organs (successful recognition of at least 7 of them)

Theoretical part - 3 randomly selected questions (Histological technique, cytology and general histology; Microscopic anatomy; Embryology)

The final evaluation is an average of all parts of examinations (tests, practical and oral parts).

# **Learning outcomes:**

## Knowledge:

Histology is the branch of science that centers on the microscopic morphology (structure) of cells, tissues and organs within the organism. The study of histology allows medical students to acquire knowledge of the microscopic structure of cells, tissues and organs of normal human body. Knowledge forms the bases for the study of Physiology and Pathology.

The aim of the first course of Histology and Embryology is the knowledge about microscopic structure and development of organs of human body, with a special emphasis on the orofacial region. Skills:

Observation and study of organs at light and electron microscopic levels; study of the relationship between tissue structure and function. Practical knowledge about microscopic differences between different organs and organ system of human body.

## Class syllabus:

Course syllabus summary:

Functional histology of the lymphatic system: cells of immune system, lymphoid tissue (diffuse lymphoid tissue and lymph nodules), lymphoid organs (lymph nodes, thymus, spleen). Functional histology of the digestive system - mouth, teeth, salivary glands, oesophagus, stomach, small intestine, large intestine, liver, gall bladder, pancreas. Functional histology of the respiratory system - nasal cavity, pharynx, larynx, trachea, bronchi, bronchioles, alveoli. Functional histology of the

endocrine glands, neuroendocrine hypothalamic-pituitary system, adrenal glands, thyroid gland, parathyroid glands, pineal gland. Microscopic structure and function of the kidney, urinary tract and urinary bladder. Microscopic structure and function of the male reproductive system. Microscopic structure and function of the female reproductive system. Microscopic structure and function of skin and adnexa. Microscopic structure and function of eye. Microscopic structure and function of ear. Spermiogenesis and oogenesis. Ultrastructure of spermatozoa and oocyte during ovulation. Fertilization. Cleavage of the zygote and development of the blastocyst. Implantation of the blastocyst into endometrium. Decidual reaction. Clinical embryology and an assisted reproduction. Bilaminar and trilaminar germ disc. Amniotic cavity, yolk sac and chorionic cavity. Formation of the twins and their fetal membranes. Somites. Development of notochord and neural tube (neurulation). Neural crest and its derivatives. Development an functional morphology of placenta. Placentar barrier. Blood vessels and heart formation. Development of the cardiovascular system. Development of large arteries and abnormalities of the cardiovascular system. Circulatory changes at birth. Development of vertebrae and spinal cord. Development of limbs. Development of gastrointestinal system and its abnormalities. Development of respiratory system and its abnormalities. Development of urinary system and its abnormalities. Development of genital system and abnormalities. Pharyngeal arches and the development of face and neck. Development of ear. Development of eye. Development of skin and its derivatives. Development of central nervous system and autonomous nervous system. Neural tube defects.

#### Recommended literature:

Recommended literature:

Histology:

- 1. Pawlina W. Histology. A Text and Atlas with Correlated Cell and Molecular Biology. 7th Edition. Philadelphia: Wolter Kluwer Health, 2016, 984 pp.
- 2. Kierszenbaum AL, Tres LL. Histology and Cell Biology. An Introduction to Pathology. Fourth Edition. Philadelphia: Elsevier Saunders, 2016. 734 pp.
- 3. Adamkov M. (Ed). Introduction to Functional Histology. Textbook. Second Revised and Updated Edition. Martin: P+M Turany 2013, 425 pp.
- 4. Gartner LP, Hiatt JL. Color Atlas and Text of Histology. Philadelphia: Wolters Kluwer Lippincott Williams a Wilkins 2014, 525 pp.
- 5. Mescher AL. Junqueira's Basic Histology. Text and Atlas. 14th Edition. New York, McGraw-Hill Education 2016, 560 pp.
- 6. Eroschenko VP. diFiore's Atlas of Histology with Functional Correlations. Twelfth Edition. Philadelphia: Lippincott Williams a Wilkins 2013, 603 pp. Embryology:
- 1. Schoenwolf GC, Bleyl SB, Brauer PR, Francis-West PH. Larsen's Human Embryology. Fifth Edition. Philadelphia: Elsevier Churchill Livingstone. 2015. 554 p.
- 2. Moore KL, Persaud TVN, Torchia MG. The Developing Human. Clinically Oriented Embryology. 10th Edition. Philadelphia: Elsevier 2016, 524 pp.
- 3. Carlson B. Human Embryology and Developmental Biology. Fifth Edition. Philadelphia: Elsevier Saunders 2014, 506 pp.
- 4. Sadler TW. Langman's Medical Embryology. Twelfth Edition. Philadelphia: Wolters Kluwer Lippincott Williams a Wilkins 2012, 384 pp.

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**Notes:** 

Past grade distribution							
Total number of evaluated students: 623							
A	В	С	D	Е	FX		
16,85	13,48	23,11	17,82	15,57	13,16		

Lecturers: prof. MUDr. Štefan Polák, CSc., prof. RNDr. Ivan Varga, PhD., MUDr. Paulína Gálfiová, PhD., MVDr. Ján Líška, CSc., MUDr. Peter Michalka, PhD., MUDr. Renáta Mikušová, PhD., MUDr. Simona Polakovičová, PhD., MUDr. Vanda Rísová, PhD., RNDr. Mária Csöbönyeiová, PhD., Mgr. Michaela Vrabcová, PhD., Mgr. Miroslava Juríková, PhD., MUDr. Martin Klein, MUDr. Mgr. Michael Miko, PhD., MUDr. Mária Lorencová, PhD.

**Last change:** 21.03.2018

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF. ÚSLLE/L-S-VLa-126/19 History of Medicine in Slovakia

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 10.

**Educational level:** I.II.

**Prerequisites:** 

**Course requirements:** 

# **Learning outcomes:**

## Class syllabus:

Introduction to the subject, organizational meeting.

Characteristics and interpretation of historical sources, basic chronology and terminology

The ancient times in Slovakia, Romans and barbarians, the possibilities of the research of the history of medicine

The beginning of the Middle Ages and medicine on the territory of Slovakia, orders, monasteries and xenodochia.

Medieval university medicine, its first manifestations and personalities within the territory of Slovakia.

Personalities of Slovak humanism.

Specifics of development in Slovakia, Hungary and wider contexts.

The expansion of medical knowledge and knowledge in the Early Modern Period.

Slovak physicians and medicine in the 19th century.

Faculty of Medicine of the Comenius University in Bratislava, Faculty in Košice and Martin

## **Recommended literature:**

## Languages necessary to complete the course:

# **Notes:**

# Past grade distribution

Total number of evaluated students: 13

A	В	С	D	E	FX
38,46	23,08	23,08	15,38	0,0	0,0

Lecturers: Mgr. Adam Mesiarkin, PhD.

Last change: 04.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.ÚH/L-S-VLa-020/19 Hygiene

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 24s Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 8.

**Educational level:** I.II.

Prerequisites: LF. ÚPA/L-S-VL-055/18 - Pathological Anatomy 2, LF. ÚPF/L-S-VLa-057/18 -

Pathological Physiology 2

# **Course requirements:**

100 % participation in practical lessons

Written test (students need at least to achieve 75 % to pass the written part of an exam)

Evaluation of the test: A: 96-100 % , B: 91-95 % , C: 86-90 % , D: 81-85 % , E: 75-80 %, Fx: <75 %

Oral exam - consists of 3 questions

Total score is determined from the average of received ratings

# **Learning outcomes:**

## Knowledge:

- about regularities of environmental impact on public health
- about health protection and promotion in the population and individual level
- about preventive medicine principles
- the basic legislation in this area

#### Skills:

- to control the basic methods for some internal and external environmental factors and the health status of different population groups monitoring
- to assess the health-nutritional status and formulate the necessary correction in order to protect the health of individuals and population groups, and the prevention of diseases
- to communicate with the public about the issue of environmental, behavioural and psychosocial factors and health at the appropriate level
- to work independently in the counseling
- the ability to use the results for general practice, pediatrics

# Class syllabus:

Living conditions and health. Environment and its factors - chemical, physical, biological and psychosocial. Education, training, lifestyle in relation to health. Air pollution in the external and internal environment and morbidity. Water and morbidity. Hazardous waste. Non-ionizing radiation. The health risks of ionizing radiation. Environmental noise. Urbanization and residential environment in relation to health. Health risks associated with nutrition. Alternative methods in nutrition. Xenobiotics. Environmental factors related to infectious diseases. Environmental

issues and chronic diseases. Basics of psychohygiene /mental health. Alcoholism, drug addiction and the environment. Age and physiological peculiarities in primary prevention. Hygiene of educational process. Environmental health risks in children and adolescents. Work and health, occupational hazards and risks, accidents at work. Physical factors in the occupational environment. Toxic chemicals in the occupational environment. Health damage, exposures and work-related diseases, selected occupational risk categories. Regimen of work and rest and prevention of occupational diseases. Hospital hygiene, outpatient departments and hospital wards. Nosocomial infections. The documentation in environmental medicine, legislation. Health risk assessment and risk management. Preparedness in emergency situations (natural and technological disasters, war conflicts, terrorism), compensatory accommodation, water supply, nutrition in emergency situations.

#### **Recommended literature:**

Ševčíková Ľ. and contributors: Hygiene – Environmetal 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

Babjaková J., Sekretár S. Nutrition and Food Safety in Public Health. Bratislava: Comenius University, 2015. 136 p. ISBN 978-80-223-3932-2

# Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 187

A	В	С	D	Е	FX
57,75	24,6	11,23	4,81	1,6	0,0

**Lecturers:** prof. MUDr. Jana Jurkovičová, CSc., prof. MUDr. Ľubica Argalášová, PhD., MUDr. Jana Babjaková, PhD., MPH, Mgr. Alexandra Filová, PhD., RNDr. Diana Vondrová, PhD.

Last change: 04.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.ÚH/L-VLa-053/00 Hygiene

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

100 % participation in practical lessons

Written test (students need at least to achieve 75 % to pass the written part of an exam)

Evaluation of the test: A: 96-100 % , B: 91-95 % , C: 86-90 % , D: 81-85 % , E: 75-80 %, Fx: <75 %

Oral exam - consists of 3 questions

Total score is determined from the average of received ratings

# **Learning outcomes:**

# Knowledge:

- about regularities of environmental impact on public health
- about health protection and promotion in the population and individual level
- about preventive medicine principles
- the basic legislation in this area

### Skills:

- to control the basic methods for some internal and external environmental factors and the health status of different population groups monitoring
- to assess the health-nutritional status and formulate the necessary correction in order to protect the health of individuals and population groups, and the prevention of diseases
- to communicate with the public about the issue of environmental, behavioural and psychosocial factors and health at the appropriate level
- to work independently in the counseling
- the ability to use the results for general practice, pediatrics

## Class syllabus:

Living conditions and health. Environment and its factors - chemical, physical, biological and psychosocial. Education, training, lifestyle in relation to health. Air pollution in the external and internal environment and morbidity. Water and morbidity. Hazardous waste. Non-ionizing radiation. The health risks of ionizing radiation. Environmental noise. Urbanization and residential environment in relation to health. Health risks associated with nutrition. Alternative methods in nutrition. Xenobiotics. Environmental factors related to infectious diseases. Environmental issues and chronic diseases. Basics of psychohygiene /mental health. Alcoholism, drug addiction

and the environment. Age and physiological peculiarities in primary prevention. Hygiene of educational process. Environmental health risks in children and adolescents. Work and health, occupational hazards and risks, accidents at work. Physical factors in the occupational environment. Toxic chemicals in the occupational environment. Health damage, exposures and work-related diseases, selected occupational risk categories. Regimen of work and rest and prevention of occupational diseases. Hospital hygiene, outpatient departments and hospital wards. Nosocomial infections. The documentation in environmental medicine, legislation. Health risk assessment and risk management. Preparedness in emergency situations (natural and technological disasters, war conflicts, terrorism), compensatory accommodation, water supply, nutrition in emergency situations.

# **Recommended literature:**

Ševčíková Ľ. and contributors: Hygiene – Environmetal 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

Babjaková J., Sekretár S. Nutrition and Food Safety in Public Health. Bratislava: Comenius University, 2015. 136 p. ISBN 978-80-223-3932-2

# Languages necessary to complete the course:

#### **Notes:**

### Past grade distribution

Total number of evaluated students: 1015

A	В	С	D	Е	FX
40,59	27,59	17,83	8,67	4,24	1,08

**Lecturers:** prof. MUDr. Jana Jurkovičová, CSc., prof. MUDr. Ľubica Argalášová, PhD., MUDr. Jana Babjaková, PhD., MPH, Mgr. Alexandra Filová, PhD., RNDr. Diana Vondrová, PhD.

Last change: 08.12.2016

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚLFBIT/L-S-VLa-169/19 | Imaging methods in medicine

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

Continous (20%)

Elaboration, presentation and defense of semestral thesis.

Final Exam (80%)

Theoretical part: written test (at least 60%)

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %,

E: 60 - 65 %, Fx: 59 % and less

Total score is determined from the average of achieved grades.

# **Learning outcomes:**

Knowledge: After successful completion of the course, students will be familiar with the physical principles of image creation in medicine as a diagnostic tool with focus on digital methods including physical impact of external factors on the body.

Skills: After successful completion of the course, students are able to consider the selection of adequate imaging method or combination of methods in terms of specific diagnosis.

#### Class syllabus:

Physical principles of radiation, radiation dosimetry, radiation detection, protection from ionizing radiation, safety regulations. Imaging methods through X-rays - sources and properties of radiation, X-rays interaction with matter, image formation and imaging systems, skiagraphy, skiascopy, digital radiography, computed tomography, artifacts, use.

Imaging techniques using radionuclides - sources and properties of radiation, interaction of radiation with matter and its detection, preparation of radionuclides, tagging, image formation and imaging systems, positron emission tomography, single photon emission computed tomography, artifacts, use. Magnetic Resonance Imaging - physical principles of nuclear magnetic resonance, image formation and imaging systems, artifacts, use. Ultrasound imaging methods - ultrasound sources and properties, interaction with matter, detection of ultrasound, image formation and display systems, probes, modes, artifacts, Doppler effect, Doppler systems, use. Optical and optoelectronic diagnostic methods - physical principles of methods, reflection and refraction of light, sources and properties of light, image formation and imaging systems, light and electron microscopy, atomic force microscopy, optical coherence tomography, endoscopy, artifacts, use. Thermometry

and thermography - infrared radiation, physical principles, properties and sources, liquid crystals, images formation and imaging systems, artifacts, use.

#### **Recommended literature:**

Allisy-Roberts, P., Wiliams, J. Farr's Physics for Medical Imaging. Edinburgh: Saunders - Elsevier, 2008, 207 p. ISBN 978-0-7020-2844-1

Webster J. G. (ed.) Medical Instrumentation. Application and Design. New York: John Wiley&Sons, Inc., 2010 (4th edition). 675 p. ISBN 978-0471-67600-3 – selected parts

Kúš P. a spol. Moderná mikroskopia a digitálne spracovanie obrazu. Bratislava : FMFI UK, 2008. 125 s. ISBN: 978-80-89186-37-2 – selected parts

Hrazdira, I., Moernstein, V., Škorpíková, J. Lékařská biofyzika a přístrojová technika. Brno: Neptun, 2006. 309 s. ISBN 80-86850-01-3 – selected parts

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 – selected parts.

Lectures on portal Mefanet – section Biophysics (http://portal.fmed.uniba.sk/)

Additional e-course (www.moja.uniba.sk)

Other available innovated literary and internet sources.

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 5

A	В	С	D	Е	FX
0,0	60,0	0,0	20,0	20,0	0,0

Lecturers: doc. RNDr. Mgr. Katarína Kozlíková, CSc.

**Last change:** 04.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IÚ/L-S-VLa-027/18 Immunology

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 35s / 19s Form of the course: on-site learning

Number of credits: 5

**Recommended semester: 5.** 

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

- 80% participation on practicals

- to pass two written test at least on 60%

Exam: written part: to pass the final test at minimally 60%

oral exam: 3 questions

Evaluation of the test: A:91-100%, B: 81-99%, C:73-80%, D: 66-72%, E:60-65%, Fx:≤ 59%.

# **Learning outcomes:**

Knowledge:

To gain knowledge of general (tisssues, organs, cells, mediators and reactions of immune system) and clinical immunology (allergy, autoimmunity, transplantation, hypersensitivity reactions, inflammation, sepsis, immunodeficiencies, , AIDS, ....), preferentially those with symptomathology in mouth cavity. Student should understand the role of immune system in the pathogenesis of different diseases.

To gain knowledge concerning cooperation of immune system with other systems (nerve system, endocrine system) and the linkage with psyche (psycho-neuro-endocrine immune supersystem) – a holistic view. The role of microbiom.

To gain knowledge about symptomathology of different immune system mediated diseases and abnormalities in mouth cavity, and based on knowledge to establish a predicted diagnosis. Skills:

- 1. to recognize life threatening immune system mediated diseases states, when the early diagnosis and treatment can contribute to recovery or at least stabilize the patient (anaphylaxis, serum sickness, pseudoallergie, immunodeficiencies and others).
- 2. to interprete the results of laboratory immunological tests (eg. titer of antibodies, levels of IgM, IgG, IgA antibodies, the occurrence of autoantibodies, the results of immune profil of the patients.
- 3. to handle blood sampling, the way of blood sampling, to know which type of tubes and chemical substances are necessary for serum, plasma or DNA isolation. To know time intervals for repeated measurments and to be able to explain the obtained results.
- 4. to handle basic laboratory work habits collection of blood, making blood smear, working with a microscope, pipetting, the isolation of serum and plasma.

# Class syllabus:

Lectures: Immunology, forms of immunity, tissues and organs of immune system. Antigen – complete, incomplete, immunogenicity, specificity and characteristics of antigen. Antibodies, their structure, function, biologic activities. Monoclonal antibodies. Complement system. Phagocytosis. PRR receptors, alarmins, PAMPs and DAMPs. Inflammation, acute phase proteins. Sepsis and MODS. Cytokines, polarization of T cells. Antiinfectious immunity. T-, NK- and NKTlymphocytes. Membranous antigens. HLA complex and its biologic and medical importance. Tissue and organ transplantations. Antigen presentation and development of immune response. Hypersensitivity reactions. Anafylaxis, atopy, oral allergic syndrome. Serum shock, serum diasease, peudoallergies. Autoimmunity - mechanisms of its development, diagnosis and therapy. Central and peripheral tolerance. Primary and secondary immune deficiencies and their symptoms. AIDS. Immunosupression and immunostimulation. Therapy with monoclonal antibodies and cytokines. Practicals/interships: Serologic reactions and their role in immunodiagnosis. Laboratory diagnosis of AIDS. Examination of the immune profile of the subject – methods for determination of the activity of both non-specific (humoral, cellular), and specific (cellular and humoral) immunity. Determination and monitoring of inflammation. Methods of transplantation immunology. In vivo and in vitro tests for the diagnosis of allergies. Laboratory diagnosis of autoimmunity.

#### **Recommended literature:**

Obligatory textbook

Buc M: Basic and Clinical Immunology. 3. Bratislava: Comenius University 2014, 305 p. Shawkatová I. et al. Laboratory methods in Immunology, Bratislava: Comenius University 2014, 184 p.

Recommended textbooks

Abbas AK, Lichtman, AH, Pillai S: Cellular and Molecular Immunology. 7th ed. New York: Elsevier, Saunders 2012, 545 s.

Doan T, Melvold R, Viselli S, Waltenbaugh C: Immunology&. 2nd ed. Philadelphia: Lippincot Williams & Wilkins 2013, 376 p.

Bellanti JA (Ed.) Immunology IV. Clinical Applications in Health and Disease. Bethesda: I care Press 2012, 1063 p.

Chapel H, Haeney M, Misbah S, Snowden N.: Essentials of Clinical Immunology. Willey Oxford: Blackwell 2014, 365 p.

## Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 352

Α	В	С	D	Е	FX
18,75	15,06	17,05	18,18	26,99	3,98

Lecturers: doc. MUDr. Mária Bucová, CSc., prof. MUDr. Milan Buc, DrSc., 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:** 13.09.2018

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.KIGM/L-VLa-075/16 Infectology

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 25s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 9., 10..

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

100 % attendance during practicals

- report of semestral the
- written and oral report of patient's case

#### Exam:

- 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

Final evaluation will be determined from the average of the values

### Learning outcomes:

Knowledge: Acquirement a general overview on the diagnosis, differential diagnosis, treatment and prevention of infectious diseases. Acquirement of the knowledge about diseases and syndromes caused by various infections.

Skills: Acquirement a skills to diagnose and treat infectious diseases. The ability to compile an optimal algorithm for the diagnosis of infectious diseases, the ability to indicate an invasive and non-invasive examination ( for example lumbal puncture ). The ability to assess the current blood smear, blood smear to malaria and screening parasitologic examination of the stool. The ability to indicate the antibiotic, antivirotic and antiparasitic treatment of the first line.

## Class syllabus:

Pathogen-host interaction, the course of infectious diseases, haematological, metabolic and biochemical changes in infectious diseases. Common syndromes and specific problems. Infections of the central nervous system, infections of the respiratory system, infectious diarrhoeal diseases, urinary tract infections, cardiovascular infections, sepsis, infections related to trauma, bone and joint infections, Infections of the liver, exanthematic infections. Dif. diagnosis of splenomegaly, hepatomegaly, lymphadenopathies and eosinophila. Imported infections incl. tropical infections, HIV inf./AIDS, Nosocomial infections, Infections in compromised host, in pregnancy, in the newborn and infections in elderly.

Lectures: Pathogen-host interaction, clinical manifestation of infectious diseases. Principles of diagnosis, therapy, prevention and prophylaxis of infectious diseases. Diarrhoeal diseases,

neuroinfections, tick-born infections, imported infections, HIV/AIDS, viral hepatitis and other infections of the liver and biliary tract, most common intestinal parasitic infections, infections of the upper and lower respiratory tract, Syllabus of practical training: Representative case reports, workshops, management of case records and other documentation of the department, practical training in the laboratory (Giemsa-smears for malaria, cerebrospinal fluid cytology). Rational indication of the laboratory diagnostic tests, taking, collecting and manipulation of biological material for laboratory examination. Prevention of nosocomial infections

# Recommended literature:

Infectious diseaes. Jiřina Hobstova (ed.) Charles University in Prague – Karolinum Press 2012. 246 p.

SL Gorbach, M. Falagas. The 5-Minute Infectious Diseases Consult.2ND Edition. London. Lippincott Williams & Wilkins. 2012. 519 p.

Selected questions from the chapters in the textbook Harison's. Principles of Internal Medicine, 19th edition. McGraw-Hill Companies, 2013 Principles of Internal Medicine.

Selected questions from the chapters in the textbook Mandell, Douglas and Bennett. Principles and Practice of Infectious Diseases. Seventh edition. Churchill Livingstone, Philadelphia 2015. 3904

# Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 446

A	В	С	D	Е	FX
41,93	31,61	14,13	4,71	6,73	0,9

**Lecturers:** doc. MUDr. Igor Stankovič, CSc., doc. MUDr. Peter Sabaka, PhD., MUDr. Matej Bendžala, PhD.

**Last change:** 15.11.2018

Approved by:

# STATE EXAM DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Medicine					
Course ID:  LF.IK/L-VLa-ŠS-3/15  Course title: Internal Medicine					
Number of credits: 2					
Recommended semester: 11.,	12				
Educational level: I.II.					
State exam syllabus:	State exam syllabus:				
Last change:					
Approved by:					

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IK 1/L-S-VLa-029/18 Internal Medicine 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 35s / 45s Form of the course: on-site learning

Number of credits: 4

Recommended semester: 6.

**Educational level: I.II.** 

**Prerequisites:** LF.IK 1/L-S-VLa-035/18 - Internal Propedeutics

# **Course requirements:**

Compulsory 100% attendance at the practicals

Pass the final written test (minimal score 60%)

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

# **Learning outcomes:**

# Knowledge:

- Basic knowledge of cardiology –diseases pathophysiology, epidemiology and the impact of the disease, basic signs and symptoms, diagnostics and differential diagnostics, basics of the prevention and treatment
- Basic knowledge of angiology pathophysiology of the diseases of arteries, veins and lymphatic vessels, epidemiology and the impact of the disease, basic signs and symptoms, diagnostics and differential diagnostics, basis of the prevention and treatment
- ECG examination improvement of the knowledge, basic pathological findings on ECG and their correlation with clinical condition
- Auxiliary examination methods and therapeutic interventions in cardiology and angiology
- Improvement of the knowledge of the Internal propedeutics

#### Skills

- Improvement of the skills when taking history and of the patient's clinical examination
- Independent examination of the patient with the cardiovascular diseases, elaboration of the patient's medical record
- Description of the physiological and pathophysiological findings on the ECG
- Description of the chest X-ray (heart and lungs)
- Assistance by echocardiography and ergometry
- 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

### Class syllabus:

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. Failure of peripheral circulation (shock, syncope). Acquired valvular disfunctions. Myocarditis. Cardiomyopathy. Endocarditis. Pericarditis. Aterosclerosis. Ischemic heart disease. Dysrhytmia. Hypertension. Peripheral vascular diseases. Aortic diseases. Neurocirculatory asthenia.

### **Recommended literature:**

Kumar, P., Clark, M. Kumar and Clark's Clinical Medicine. Philadelphia: Saunders Ltd., 2012.1352 s. ISBN-13: 978-0-7020-449-91

Longo, D, Fauci, A., Kasper, D., Hauser, S., Loscalzo J. Harrison's Priniciples of Internal Medicine 18th ed. New York: McGraw-Hill, 2011. 1796 pp. ISBN 978-0-07-163244-7 Goldman, L. et al. Goldman's cecil medicine. Philadelphia: W.B.Saunders, 2012. 2569 s. ISBN 9781437716047

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

# Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 326

A	В	С	D	Е	FX
7,06	45,71	34,66	7,98	4,29	0,31

Lecturers: prof. MUDr. Stanislav Oravec, CSc., doc. MUDr. Jozef Bulas, CSc., prof. MUDr. Viera Štvrtinová, PhD., prof. MUDr. L'udovít Gašpar, CSc., doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Ján Lietava, CSc., doc. MUDr. L'udovít Lukáč, PhD., prof. MUDr. Ján Murín, CSc., MUDr. Martin Čaprnda, PhD., doc. MUDr. Denisa Čelovská, PhD., prof. MUDr. Viliam Bada, CSc., doc. MUDr. Mária Szántová, PhD., prof. MUDr. Viera Kupčová, CSc., doc. MUDr. Viliam Mojto, CSc., prof. MUDr. Andrej Dukát, CSc., prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Tibor Hlavatý, PhD., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Zdenko Killinger, PhD., doc. MUDr. Tomáš Koller, PhD., MUDr. Róbert Brnka, PhD., MUDr. Mária Potočárová, PhD., doc. MUDr. Emőke Šteňová, PhD., MUDr. Katarína Vlčková, MUDr. Andrea Komorníková, PhD., MUDr. Michal Koreň, PhD., MUDr. Marek Kučera, PhD., MPH, prof. MUDr. Zoltán Mikeš, DrSc., MUDr. Naďa Bežillová, PhD., MUDr. Monika Szamosová, MUDr. Zuzana Ďurkovičová, MUDr. Michaela Fedelešová, PhD., MUDr. Tereza Hlavatá, MUDr. Mária Komlósi, PhD., MUDr. Katarína Bobocká, PhD., MUDr. Miroslav Budaj, PhD., doc. MUDr. Jozef Kalužay, PhD., MUDr. Mgr. Zuzana Mináriková, PhD., MUDr. Veronika Pokorná, PhD., MPH, prof. MUDr. Peter Ponťuch, CSc.

Last change: 04.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IK\_1/L-S-VLa-030/19 Internal Medicine 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 31s / 35s Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 7.

**Educational level:** I.II.

Prerequisites: LF.IK 1/L-S-VLa-029/18 - Internal Medicine 1

# **Course requirements:**

Compulsory 100% attendance at the practicals

Pass the final written test (minimal score 60%)

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

# **Learning outcomes:**

# Knowledge:

- Basic knowledge of pneumology and ftizeology disease pathophysiology, epidemiology and the impact of the disease, signs and symptoms, diagnostics and differential diagnostics, basis of the prevention and treatment, including tuberculosis
- Auxiliary examinations and therapeutic interventions in pneumology
- Basic knowledge from rheumatology disease pathophysiology, epidemiology and the impact of the disease, signs and symptoms, diagnostics and differential diagnostics, basis of the prevention and treatment
- Auxiliary examinations and therapeutic interventions in rheumatology
- Improvement of the knowledge of the Internal propedeutics
- Improvement of the skills when taking history and of the patient's clinical examination
- Independent examination of the patient with respiratory tract disease, elaboration of the patient's medical record
- Independent examination of the patient with musculoskeletal disorder, elaboration of the patient's medical record
- Assistance by the pleural puncture, assistance in examination of lung volumes and flows, body plethysmography, lung diffusion capacity and ergometers, assistance by the fibrobronchoscopy
- Assistance by the examination at allergology
- Assistance by the application of inhalant drugs including oxygen
- Assistance by the evaluation of X-ray of joints, assistance by DXA and its evaluation
- Improvement of the skills in describing the ECG and chest X-ray
- 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:

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, tendoms and binders. Basic and special examinations in rheumatology. Rheumatoid arthritis. Lupus erythematosus. Scleroderma. Dermatomyositis. Periarteritis nodosa. Sjőrgen's syndrome. Felty syndrome. Caplan syndrome. Still's syndrome. Juvenile rheumatoid arthritis. Palindromic rheumatism. Gout. Polymyositis. Vasculitis. Osteoporosis and other metabolic diseases of bones.

### **Recommended literature:**

Kumar, P., Clark, M. Kumar and Clark's Clinical Medicine. Philadelphia: Saunders Ltd., 2012.1352 s. ISBN-13: 978-0-7020-449-91

Longo, D, Fauci, A., Kasper, D., Hauser, S., Loscalzo J. Harrison's Priniciples of Internal Medicine 18th ed. New York: McGraw-Hill, 2011. 1796 pp. ISBN 978-0-07-163244-7 Goldman, L. et al. Goldman's cecil medicine. Philadelphia: W.B.Saunders, 2012. 2569 s. ISBN 9781437716047

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

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 242

A	В	С	D	Е	FX
9,5	50,0	25,62	10,74	4,13	0,0

Lecturers: MUDr. Martin Čaprnda, PhD., doc. MUDr. Soňa Kiňová, PhD., prof. MUDr. Viliam Bada, CSc., doc. MUDr. Mária Szántová, PhD., prof. MUDr. Viera Kupčová, CSc., doc. MUDr. Viliam Mojto, CSc., prof. MUDr. Peter Ponťuch, CSc., prof. MUDr. Andrej Dukát, CSc., prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Tibor Hlavatý, PhD., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Zdenko Killinger, PhD., doc. MUDr. Tomáš Koller, PhD., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. Zoltán Mikeš, DrSc., prof. MUDr. Silvester Krčméry, CSc., MUDr. Silvia Semanová, MUDr. Rastislav Tahotný, PhD., MUDr. Marta Hájková, CSc., doc. MUDr. Štefan Urban, CSc.

Last change: 04.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IK\_1/L-S-VLa-031/19 Internal Medicine 3

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 33s / 35s Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 8.

**Educational level: I.II.** 

Prerequisites: LF.IK 1/L-S-VLa-030/19 - Internal Medicine 2

# **Course requirements:**

Compulsory 100% attendance at the practicals

Pass the final written test (minimal score 60%)

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

# **Learning outcomes:**

Knowledge:

- Basic knowledge of 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
- Auxiliary examinations and therapeutic interventions in gastroenterology and hepatology
- Basic knowledge of haematology disease pathophysiology, epidemiology and the impact of the disease, basic signs and symptoms, diagnostics and differential diagnostics, basics of the prevention and treatment
- Auxiliary examinations and therapeutic interventions in haematology
- Improvement of the knowledge of the Internal propedeutics
- Improvement of the skills when taking history and of the patient's clinical examination
- Independent examination of the patient with the gastrointestinal disease, elaboration of the patient's medical record
- Digital rectal examination
- Assistance by ascites puncture, liver puncture, gastrofibroscopy, colonoscopy, ERCP, Ultrasound of the abdomen, nasogastric tube insertion
- Independent examination of the patient with haematologic disease, elaboration of the patient's medical record
- Assistance by the bone marrow puncture
- Administration of blood products, examination before administration
- Improvement of the skills in describing the ECG and chest X-ray
- 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:

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. Anaemias and anaemic syndrome. Myelodysplastic syndrome. Myeloproliferative diseases. Hemocoagulation disorders. Leucopenias. Trombocytopenias. Acute leukemia. Malignant lymphoma, chronic lymphatic leukemia. Transfusion of blood products. Special examinations in haematology.

# **Recommended literature:**

Kumar, P., Clark, M. Kumar and Clark's Clinical Medicine. Philadelphia: Saunders Ltd., 2012.1352 s. ISBN-13: 978-0-7020-449-91

Longo, D, Fauci, A., Kasper, D., Hauser, S., Loscalzo J. Harrison's Priniciples of Internal Medicine 18th ed. New York: McGraw-Hill, 2011. 1796 pp. ISBN 978-0-07-163244-7 Goldman, L. et al. Goldman's cecil medicine. Philadelphia: W.B.Saunders, 2012. 2569 s. ISBN 9781437716047

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

## Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 122

A	В	С	D	Е	FX
18,85	37,7	32,79	8,2	2,46	0,0

Lecturers: MUDr. Martin Čaprnda, PhD., doc. MUDr. Soňa Kiňová, PhD., prof. MUDr. Viliam Bada, CSc., doc. MUDr. Mária Szántová, PhD., prof. MUDr. Viera Kupčová, CSc., doc. MUDr. Viliam Mojto, CSc., prof. MUDr. Peter Ponťuch, CSc., prof. MUDr. Andrej Dukát, CSc., prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Tibor Hlavatý, PhD., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Zdenko Killinger, PhD., doc. MUDr. Tomáš Koller, PhD., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. Zoltán Mikeš, DrSc., prof. MUDr. Silvester Krčméry, CSc., MUDr. Silvia Semanová, MUDr. Rastislav Tahotný, PhD., MUDr. Marta Hájková, CSc., doc. MUDr. Štefan Urban, CSc.

Last change: 04.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IK\_1/L-S-VLa-032/19 Internal Medicine 4

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 28s / 40s

Form of the course: on-site learning

Number of credits: 5

**Recommended semester:** 9.

**Educational level:** I.II.

**Prerequisites:** LF.IK 1/L-S-VLa-031/19 - Internal Medicine 3

# **Course requirements:**

Compulsory 100% attendance at the practicals

Pass the final written test (minimal score 60%)

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

Exam:

- Successful completion of final written test (minimal score 60%) is required for the oral exam

- Successful answer of 3 questions

Total evaluation is determined from the average of received scores.

### **Learning outcomes:**

Learning outcomes:

Knowledge:

- Basic knowledge from 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
- Auxiliary examinations and therapeutic interventions in endocrinology and diabetology
- Basic knowledge from nephrology disease pathophysiology, epidemiology and the impact of the disease, basic signs and symptoms, diagnostics and differential diagnostics, basics of the prevention and treatment
- Auxiliary examinations and therapeutic interventions in nephrology
- Improvement of the knowledge of the Internal propedeutics

Skills:

- Improvement of the skills when taking history and of the patient's clinical examination
- Independent examination of the patient with the endocrinal disease and diabetes mellitus, elaboration of the patient's medical record
- Assistance by ultrasound of the thyroid gland
- Independent examination of the patient with kidney disease, elaboration of the patient's medical record
- Catheterisation of urinary bladder
- Improvement of the skills in describing the ECG and chest X-ray

- 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. 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:**

Kumar, P., Clark, M. Kumar and Clark's Clinical Medicine. Philadelphia: Saunders Ltd., 2012.1352 s. ISBN-13: 978-0-7020-449-91

Longo, D, Fauci, A., Kasper, D., Hauser, S., Loscalzo J. Harrison's Priniciples of Internal Medicine 18th ed. New York: McGraw-Hill, 2011. 1796 pp. ISBN 978-0-07-163244-7 Goldman, L. et al. Goldman's cecil medicine. Philadelphia: W.B.Saunders, 2012. 2569 s. ISBN 9781437716047

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

## Languages necessary to complete the course:

### **Notes:**

# Past grade distribution

Total number of evaluated students: 229

A	В	С	D	Е	FX
45,41	24,45	15,28	9,61	4,8	0,44

Lecturers: prof. MUDr. Stanislav Oravec, CSc., doc. MUDr. Jozef Bulas, CSc., MUDr. Martin Čaprnda, PhD., prof. MUDr. Ľudovít Gašpar, CSc., prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Ján Lietava, CSc., prof. MUDr. Ján Murín, CSc., prof. MUDr. Viliam Bada, CSc., doc. MUDr. Mária Szántová, PhD., prof. MUDr. Viera Kupčová, CSc., doc. MUDr. Viliam Mojto, CSc., prof. MUDr. Peter Ponťuch, CSc., prof. MUDr. Andrej Dukát, CSc., prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Tibor Hlavatý, PhD., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Zdenko Killinger, PhD., doc. MUDr. Tomáš Koller, PhD., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. Zoltán Mikeš, DrSc., prof. MUDr. Silvester Krčméry, CSc.

**Last change:** 04.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IK\_1/L-VLa-037/11 Internal Medicine 4

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 26s / 50s Form of the course: on-site learning

Number of credits: 5

Recommended semester: 9.

**Educational level: I.II.** 

# **Prerequisites:**

### **Course requirements:**

Compulsory 100% attendance at the practicals

Pass the final written test (minimal score 60%)

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

#### Exam:

- Successful completion of final written test (minimal score 60%) is required for the oral exam
- Successful answer of 3 questions

Total evaluation is determined from the average of received scores.

### **Learning outcomes:**

# Knowledge:

- Basic knowledge from 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
- Auxiliary examinations and therapeutic interventions in endocrinology and diabetology
- Basic knowledge from nephrology disease pathophysiology, epidemiology and the impact of the disease, basic signs and symptoms, diagnostics and differential diagnostics, basics of the prevention and treatment
- Auxiliary examinations and therapeutic interventions in nephrology
- Improvement of the knowledge of the Internal propedeutics Skills:
- Improvement of the skills when taking history and of the patient's clinical examination
- Independent examination of the patient with the endocrinal disease and diabetes mellitus, elaboration of the patient's medical record
- Assistance by ultrasound of the thyroid gland
- Independent examination of the patient with kidney disease, elaboration of the patient's medical record
- Catheterisation of urinary bladder
- Improvement of the skills in describing the ECG and chest X-ray

- 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. 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:**

Kumar, P., Clark, M. Kumar and Clark's Clinical Medicine. Philadelphia: Saunders Ltd., 2012.1352 s. ISBN-13: 978-0-7020-449-91

Longo, D, Fauci, A., Kasper, D., Hauser, S., Loscalzo J. Harrison's Priniciples of Internal Medicine 18th ed. New York: McGraw-Hill, 2011. 1796 pp. ISBN 978-0-07-163244-7 Goldman, L. et al. Goldman's cecil medicine. Philadelphia: W.B.Saunders, 2012. 2569 s. ISBN 9781437716047

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

# Languages necessary to complete the course:

### **Notes:**

# Past grade distribution

Total number of evaluated students: 782

A	В	С	D	Е	FX
37,21	21,74	17,39	11,0	11,51	1,15

Lecturers: prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Viliam Bada, CSc., prof. MUDr. Andrei Dukát, CSc., prof. MUDr. Viera Kupčová, CSc., prof. MUDr. Zoltán Mikeš, DrSc., prof. MUDr. Stanislav Oravec, CSc., prof. MUDr. Peter Pontuch, CSc., prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. L'udovít Gašpar, CSc., doc. MUDr. Peter Gavorník, PhD., prof. MUDr. Tibor Hlavatý, PhD., doc. MUDr. Zdenko Killinger, PhD., doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Ján Lietava, CSc., doc. MUDr. Viliam Mojto, CSc., doc. MUDr. Mária Szántová, PhD., doc. MUDr. Pavol Tisoň, CSc., MUDr. Martin Čaprnda, PhD., doc. MUDr. Denisa Čelovská, PhD., doc. MUDr. Tomáš Koller, PhD., MUDr. Marek Kučera, PhD., MPH, doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Jozef Bulas, CSc., prof. MUDr. Ján Murín, CSc., MUDr. Matej Bendžala, PhD., MUDr. Róbert Brnka, PhD., MUDr. Andrea Komorníková, PhD., MUDr. Michal Koreň, PhD., doc. MUDr. Ľudovít Lukáč, PhD., MUDr. Mária Potočárová, PhD., doc. MUDr. Peter Sabaka, PhD., doc. MUDr. Emőke Šteňová, PhD., MUDr. Veronika Vyskočilová, prof. MUDr. Silvester Krčméry, CSc., MUDr. Silvia Semanová, MUDr. Rastislav Tahotný, PhD., MUDr. Ján Šuba, MUDr. Lucia Tomášková, MUDr. Kristína Brázdilová, PhD., doc. MUDr. Martin Kužma, PhD., MUDr. Patrícia Páleníková, PhD., MUDr. Katarína Hrubišková, MUDr. Jana Kollerová, PhD., MUDr. Anna Krajčovičová, PhD.

<b>Last change:</b> 05.12.2016	
Approved by:	

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IK\_1/L-S-VLa-033/19 Internal Medicine 5

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 26s / 45s

Form of the course: on-site learning

Number of credits: 4

Recommended semester: 10.

**Educational level: I.II.** 

Prerequisites: LF.IK 1/L-S-VLa-032/19 - Internal Medicine 4

# **Course requirements:**

Compulsory 100% attendance at the practicals

Pass the final written test (minimal score 60%)

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

# **Learning outcomes:**

Knowledge:

- Basic knowledge of geriatrics and gerontology, clinical issues of older age, care of the dying patient
- 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.
- Tactics of collection and processing of occupational medical history, clinical examination of the patient with suspected occupational diseases, diagnostics, treatment. Diagnostic methods by professional injuries. Work of the Centre of Toxicology.
- Basics of physiotherapy and its importance in internal medicine. Physical therapy in diseases of various systems.
- Basics of differential diagnostics and management of the patients with "major symptoms of internal medicine" (dyspnea, chest pain, abdominal pain, loss of consciousness)
- Improvement of knowledge of Internal propedeutics Skills:
- Independent examination of the geriatric patient with regard to the specifics of older age, clinical signs of diseases in older age and specifics of treatment
- Physical therapy in diseases of various systems
- Complex history taking from patient with an emphasis on occupational part of history, manage medical preventive examination according to risk factors at work, interpretation of hygienic survey at work, assess the eligibility to the specific job when the disease, assess the X-ray documentation by work related disease of respiratory tract, evaluate the result of spirometry in suspected occupational disease, evaluate the microcirculation of upper limbs (interpretation of the results of FPG, cooling test) when the suspection of the work related disease, examination of the patients with disease from long, excessive, one-sided load, interpretation of the results by various intoxications and preparation of the toxicological information in the Center of Toxicology

- Cardiopulmonary resuscitation in internal medicine
- Improvement of the skills in describing the ECG and chest X-ray
- 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. Classification of age. 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:**

Kumar, P., Clark, M. Kumar and Clark's Clinical Medicine. Philadelphia: Saunders Ltd., 2012.1352 s. ISBN-13: 978-0-7020-449-91

Longo, D, Fauci, A., Kasper, D., Hauser, S., Loscalzo J. Harrison's Priniciples of Internal Medicine 18th ed. New York: McGraw-Hill, 2011. 1796 pp. ISBN 978-0-07-163244-7 Goldman, L. et al. Goldman's cecil medicine. Philadelphia: W.B.Saunders, 2012. 2569 s. ISBN 9781437716047

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

### Languages necessary to complete the course:

### **Notes:**

### Past grade distribution

Total number of evaluated students: 109

A	В	С	D	Е	FX
3,67	70,64	22,02	1,83	1,83	0,0

Lecturers: prof. MUDr. Stanislav Oravec, CSc., doc. MUDr. Jozef Bulas, CSc., MUDr. Martin Čaprnda, PhD., prof. MUDr. Ľudovít Gašpar, CSc., prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Ján Lietava, CSc., prof. MUDr. Ján Murín, CSc., prof. MUDr. Viliam Bada, CSc., doc. MUDr. Mária Szántová, PhD., prof. MUDr. Viera Kupčová, CSc., doc. MUDr. Viliam Mojto, CSc., prof. MUDr. Peter Ponťuch, CSc., prof. MUDr. Andrej Dukát, CSc., prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Tibor Hlavatý, PhD., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Zdenko Killinger, PhD., doc. MUDr. Tomáš Koller, PhD., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. Zoltán Mikeš, DrSc., prof. MUDr. Silvester Krčméry, CSc., doc. MUDr. Igor Bátora, CSc., MUDr. Marta Hájková, CSc., doc. MUDr. Štefan Urban, CSc., MUDr. Marek Kučera, PhD., MPH

**Last change:** 04.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IK\_1/L-VLa-38/11 Internal Medicine 5

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 26s / 45s

Form of the course: on-site learning

Number of credits: 3

Recommended semester: 10.

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

Compulsory 100% attendance at the practicals

Pass the final written test (minimal score 60%)

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

# **Learning outcomes:**

Knowledge:

- Basic knowledge of geriatrics and gerontology, clinical issues of older age, care of the dying patient
- 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.
- Tactics of collection and processing of occupational medical history, clinical examination of the patient with suspected occupational diseases, diagnostics, treatment. Diagnostic methods by professional injuries. Work of the Centre of Toxicology.
- Basics of physiotherapy and its importance in internal medicine. Physical therapy in diseases of various systems.
- Basics of differential diagnostics and management of the patients with "major symptoms of internal medicine" (dyspnea, chest pain, abdominal pain, loss of consciousness)
- Improvement of knowledge of Internal propedeutics Skills:
- Independent examination of the geriatric patient with regard to the specifics of older age, clinical signs of diseases in older age and specifics of treatment
- Physical therapy in diseases of various systems
- Complex history taking from patient with an emphasis on occupational part of history, manage medical preventive examination according to risk factors at work, interpretation of hygienic survey at work, assess the eligibility to the specific job when the disease, assess the X-ray documentation by work related disease of respiratory tract, evaluate the result of spirometry in suspected occupational disease, evaluate the microcirculation of upper limbs (interpretation of the results of FPG, cooling test) when the suspection of the work related disease, examination of the patients with disease from long, excessive, one-sided load, interpretation of the results by various intoxications and preparation of the toxicological information in the Center of Toxicology

- Cardiopulmonary resuscitation in internal medicine
- Improvement of the skills in describing the ECG and chest X-ray
- 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. Classification of age. 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:**

Kumar, P., Clark, M. Kumar and Clark's Clinical Medicine. Philadelphia: Saunders Ltd., 2012.1352 s. ISBN-13: 978-0-7020-449-91

Longo, D, Fauci, A., Kasper, D., Hauser, S., Loscalzo J. Harrison's Priniciples of Internal Medicine 18th ed. New York: McGraw-Hill, 2011. 1796 pp. ISBN 978-0-07-163244-7 Goldman, L. et al. Goldman's cecil medicine. Philadelphia: W.B.Saunders, 2012. 2569 s. ISBN 9781437716047

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

### Languages necessary to complete the course:

## **Notes:**

### Past grade distribution

Total number of evaluated students: 703

A	В	С	D	Е	FX
13,8	30,87	39,69	12,09	3,56	0,0

Lecturers: prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Andrej Dukát, CSc., prof. MUDr. Zoltán Mikeš, DrSc., prof. MUDr. Stanislav Oravec, CSc., prof. MUDr. Peter Ponťuch, CSc., prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Martin Dúbrava, CSc., doc. MUDr. Peter Gavorník, PhD., prof. MUDr. Ľudovít Gašpar, CSc., doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Ján Lietava, CSc., MUDr. Martin Čaprnda, PhD., doc. MUDr. Denisa Čelovská, PhD., MUDr. Marek Kučera, PhD., MPH, doc. MUDr. Jozef Bulas, CSc., doc. MUDr. Marta Hájková, CSc., doc. MUDr. Igor Bátora, CSc., MUDr. Danka Grellneth, MUDr. Jana Holčíková, PhD., MUDr. Andrea Jurinová, RNDr. Oľga Otrubová, PhD., MUDr. Jana Ravasová, PhD., MUDr. Barbara Hagarová, doc. MUDr. Ivan Majer, CSc., MUDr. Zuzana Fedáková, MUDr. Helena Novosadová, PhD., MUDr. František Sándor, PhD., MUDr. Zuzana Štrbová, PhD., MUDr. Eva Tedlová, PhD., doc. MUDr. Štefan Urban, CSc., MUDr. Barbora Olšakovská, MUDr. Ján Šuba, prof. MUDr. Silvester Krčméry, CSc., MUDr. Silvia Semanová, MUDr. Rastislav Tahotný, PhD., MUDr. Lucia Tomášková, MUDr. Michaela Štefková

**Last change:** 05.12.2016

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IK 1/L-S-VLa-034/19 Internal Medicine 6

**Educational activities:** 

Type of activities: seminar / practicals

**Number of hours:** 

per week: per level/semester: 72s / 396s

Form of the course: on-site learning

**Number of credits: 16** 

Recommended semester: 11., 12..

**Educational level: I.II.** 

Prerequisites: LF.IK 1/L-S-VLa-033/19 - Internal Medicine 5

# **Course requirements:**

- 100% attendance at the practicals and seminars
- Completion of circulations at the department of haematology and oncology
- 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

# **Learning outcomes:**

# Knowledge:

- Improvement of knowledge of internal medicine } cardiology, pneumology, gastroenterology, hepatology, nephrology, hematology, endocrinology, diabetology, rheumatology
- Differential diagnostics in internal medicine, workup of 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
- Get familiar with the work of consilium doctor
- Stay at the department of oncology, haematology and transfusiology
- Stay at the intensive care unit
- Practical work at internal department in the range of secondary doctor: presence at morning meeting, morning round by the bed of a patient, report at the grand professor's round, medical report management, workup of diagnostic and therapeutical procedures, case history, differential diagnostics
- Improvement of propedeutic examinations and their use in diagnosis workup. Evaluation of the results of auxiliary 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, report patient at the grand round, medical record management, design of diagnostic and therapeutical procedures, case reports of patients, differential diagnostics. Stay at the outpatient clinic, get familiar with the work of the doctor at outpatient clinic and with the work by urgent situations. Stay at the department of oncology, haematology and transfusiology. Stay at intensive care unit. Cardiopulmonary resuscitation, defibrillation. Improvement of propedeutical 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:**

Kumar, P., Clark, M. Kumar and Clark's Clinical Medicine. Philadelphia: Saunders Ltd., 2012.1352 s. ISBN-13: 978-0-7020-449-91

Longo, D, Fauci, A., Kasper, D., Hauser, S., Loscalzo J. Harrison's Priniciples of Internal Medicine 18th ed. New York: McGraw-Hill, 2011. 1796 pp. ISBN 978-0-07-163244-7 Goldman, L. et al. Goldman's cecil medicine. Philadelphia: W.B.Saunders, 2012. 2569 s. ISBN 9781437716047

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

# Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 220

A	В	С	D	Е	FX
67,73	17,73	10,45	2,27	1,82	0,0

Lecturers: prof. MUDr. Stanislav Oravec, CSc., doc. MUDr. Jozef Bulas, CSc., prof. MUDr. Viera Štvrtinová, PhD., doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Ján Lietava, CSc., doc. MUDr. Ľudovít Lukáč, PhD., prof. MUDr. Ján Murín, CSc., prof. MUDr. Viliam Bada, CSc., doc. MUDr. Mária Szántová, PhD., prof. MUDr. Viera Kupčová, CSc., prof. MUDr. Peter Pont'uch, CSc., prof. MUDr. Andrej Dukát, CSc., prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Tibor Hlavatý, PhD., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Zdenko Killinger, PhD., doc. MUDr. Tomáš Koller, PhD., doc. MUDr. Martin Dúbrava, CSc., prof. MUDr. Zoltán Mikeš, DrSc., prof.

MUDr. Silvester Krčméry, CSc., doc. MUDr. Martin Mistrík, PhD., doc. MUDr. Štefan Urban, CSc., doc. MUDr. Igor Bátora, CSc., doc. MUDr. Jozef Kalužay, PhD.

**Last change:** 04.03.2020

Approved by:

University: Comenius Universi	ty in Bratislava
Faculty: Faculty of Medicine	
Course ID: LF.IK_1/L-S-VLa-102/19	Course title: Internal Medicine – practice
Educational activities: Type of activities: practice Number of hours: per week: per level/semeste Form of the course: on-site le	
Number of credits: 3	
Recommended semester: 8.	
Educational level: I.II.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to compl	lete the course:
Notes:	
Past grade distribution Total number of evaluated students	ents: 143
	ABS0
	100,0
Lecturers: prof. MUDr. Ľudoví Soňa Kiňová, PhD., doc. MUDr	ít Gašpar, CSc., prof. MUDr. Juraj Payer, PhD., MPH, doc. MUDr. Viliam Mojto, CSc.
Last change:	
Approved by:	

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.IK\_1/L-S-VLa-035/18 Internal Propedeutics

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

**per week: per level/semester:** 37s / 50s **Form of the course:** on-site learning

**Number of credits:** 6

**Recommended semester: 5.** 

**Educational level: I.II.** 

Prerequisites: LF.AÚ/L-S-VLa-003/17 - Anatomy 3,LF.FyÚ/L-S-VLa-014/17 - Physiology 2

# **Course requirements:**

Course requirements:

Compulsory 100% attendance at the practicals

Pass the final written test (minimal score 60%)

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

Exam:

- Successfully passed final written test (minimal score 60%) is required for the admission to the oral part of the exam
- Successful answering of 3 questions
- Basic description of ECG (physiological and pathological) and X-ray (chest and abdomen)

Total evaluation is determined from the average of scores.

# **Learning outcomes:**

Learning outcomes:

Knowledge:

- Basic history of internal medicine, content and mission of internal medicine
- Parts of patient's history and their importance in the differential diagnostics
- Symptoms and syndromes of various system diseases and their importance in internal propedeutics
- Theoretical basics of phzsical examination of the patient }inspection, palpation, percussion, auscultation, examination of head, neck, chest, abdomen and limbs)
- ECG basic parts of ECG curve, basic findings on ECG
- X-ray of chest and abdomen description, basic findings
- Theoretical basis of laboratory exams in internal medicine, review, indications and evaluation
- Theoretical basis of auxiliary and special examinations in internal medicine (ultrasound, endoscopy etc)
- Theoretical basis of diagnostic and therapeutic procedures in internal medicine (puncture of ascites, pleural puncture, puncture of bone marrow, urine examination etc)
  Skills:
- First contact with the patient and history taking
- Basis of clinical examination of the patient status praesens generalis and status praesens localis (examination of head, neck, chest, abdomen and limbs)

- Individual examination of the patient and medical record workup
- Basic description of ECG
- Basic description of chest and abdomen X-ray
- 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:

Course syllabus summary:

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 paesens localis. Physical examination (inspection, palpation, percussion, auscultation) of the head, neck, chest, abdomen, limbs and musculoskeletal system. Evaluation of ECG. X-ray diagnostics and imagining techniques. Laboratory examinations in internal medicine. Special examination in internal medicine. Individual examination of the patient and medical record management.

## **Recommended literature:**

Kumar, P., Clark, M. Kumar and Clark's Clinical Medicine. Philadelphia: Saunders Ltd., 2012.1352 s. ISBN-13: 978-0-7020-449-91

Longo, D, Fauci, A., Kasper, D., Hauser, S., Loscalzo J. Harrison's Priniciples of Internal Medicine 18th ed. New York: McGraw-Hill, 2011. 1796 pp. ISBN 978-0-07-163244-7 Goldman, L. et al. Goldman's cecil medicine. Philadelphia: W.B.Saunders, 2012. 2569 s. ISBN 9781437716047

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

# Languages necessary to complete the course:

### **Notes:**

# Past grade distribution

Total number of evaluated students: 354

A	В	С	D	Е	FX
33,05	22,88	19,21	14,69	9,32	0,85

Lecturers: prof. MUDr. Stanislav Oravec, CSc., doc. MUDr. Jozef Bulas, CSc., prof. MUDr. Viera Štvrtinová, PhD., prof. MUDr. Ľudovít Gašpar, CSc., doc. MUDr. Soňa Kiňová, PhD., doc. MUDr. Ján Lietava, CSc., doc. MUDr. Ľudovít Lukáč, PhD., prof. MUDr. Ján Murín, CSc., MUDr. Martin Čaprnda, PhD., doc. MUDr. Denisa Čelovská, PhD., prof. MUDr. Viliam Bada, CSc., doc. MUDr. Mária Szántová, PhD., prof. MUDr. Viera Kupčová, CSc., doc. MUDr. Viliam Mojto, CSc., prof. MUDr. Andrej Dukát, CSc., prof. MUDr. Juraj Payer, PhD., MPH, prof. MUDr. Tibor Hlavatý, PhD., doc. MUDr. Peter Jackuliak, PhD., MPH, doc. MUDr. Zdenko Killinger, PhD., doc. MUDr. Tomáš Koller, PhD., MUDr. Róbert Brnka, PhD., MUDr. Mária Potočárová, PhD., MUDr. Katarína Vlčková, MUDr. Veronika Vyskočilová, MUDr. Andrea Komorníková, PhD., MUDr. Michal Koreň, PhD., MUDr. Marek Kučera, PhD., MPH, doc. MUDr. Emőke Šteňová, PhD., prof. MUDr. Zoltán Mikeš, DrSc., MUDr. Katarína Bobocká, PhD., MUDr. Miroslav Budaj, PhD., doc. MUDr. Jozef Kalužay, PhD., MUDr. Mgr. Zuzana Mináriková, PhD., MUDr. Veronika Pokorná, PhD., MPH, prof. MUDr. Peter Pont'uch, CSc., doc. MUDr. Igor Bátora, CSc., MUDr. Danka Grellneth, MUDr. Jana Holčíková, PhD., MUDr. Andrea Jurinová, RNDr. Ol'ga Otrubová, PhD., MUDr. Jana Ravasová, PhD., MUDr. Zuzana Fedáková, MUDr. Michaela Štefková, MUDr. Barbara Hagarová, doc. MUDr. Ivan Majer, CSc., MUDr. Helena Novosadová, PhD., MUDr. František Sándor, PhD., MUDr. Zuzana Štrbová, PhD., MUDr. Eva Tedlová, PhD., doc. MUDr. Štefan Urban, CSc.

<b>Last change:</b> 13.09.2018	
Approved by:	

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF. ÚSLLE/L-S-VLa-160/19 Introduction to Health Management

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 7.

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

Presence at seminars (at least 90% attendance)

Final exam:

- To pass written test (min 60% of points)
- Oral exam one question.

# **Learning outcomes:**

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.

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.
- Understand the importance and functions of management and explain the basic managerial terms and processes.
- Discuss the role of the management in healthcare.
- Work effectively in team and apply principles of successful leadership.
- Understand the role of organizational and human resource management in the healthcare.
- Analyze the external and internal environment of health care organization.
- Understand the principles of health financing and basics of healthcare financial management.
- Demonstrate knowledge of strategic planning and decision making in healthcare organizations.
- Understand the core concepts and measurement tools of quality and safety in health care.
- Describe the new approaches and strategies for process improvement and problem solving in healthcare.

# Class syllabus:

Management – basic terminology, functions, history. Healthcare management. External environment and internal environment of healthcare organizations. Financing health care. Health systems: structure and typology. 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, team work. Managerial communication. Human

resource management. Assessment and motivation of employees in health care organization. Financing management 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:**

Robbins P., Coulter M. Management. 11th ed. New Jersey: Pearson Education, Inc., 2012 Walshe K., Smith J. (eds). Healthcare Management. Maidenhead, England: Open University Press, 2011.

Healey, B.J., Marchese, M. C. Foundations of Health Care Management: Principles and Methods. John Wiley & Sons, 2012

WHO European Observatory on Health Systems and Policies. Health systems reviews (HiT series). http://www.euro.who.int/en/about-us/partners/observatory/publications/health-system-reviews-hits

Macchi L., Pietikäinen E., Reiman T., Heikkilä J., Ruuhilehto K.

Patient safety management. Available models and systems. VTT Working Papers 169. May 2011.ISBN 978-951-38-7510-7 (URL: http://www.vtt.fi/inf/pdf/workingpapers/2011/W169.pdf) Suneja, A., Suneja, C. Lean Doctors Workbook: An Application Guide for Transforming Outpatient Clinic Systems with Lean. ASQ Quality Press. December 2010. ISBN 9780873898133

# Languages necessary to complete the course:

#### Notes:

## Past grade distribution

Total number of evaluated students: 53

A	В	С	D	Е	FX
96,23	3,77	0,0	0,0	0,0	0,0

**Lecturers:** doc. Ing. Milan Fekete, PhD., Mgr. et Mgr. Silvia Capíková, PhD., Ing. Magdaléna Veselská

Last change: 12.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚMB/L-S-VLa-068/17 Introduction to Science

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 25s Form of the course: on-site learning

Number of credits: 1

Recommended semester: 4.

**Educational level: I.II.** 

# **Prerequisites:**

### **Course requirements:**

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

# **Learning outcomes:**

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 lear 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.

## Class syllabus:

Scientific principles in biomedicine. Information sources and their quality. Bibliographic databases and search. Descriptive statistics. Statistical testing. Introduction and methodology. Results and discussion. Abstract, citation and literature. Design experiments. Presentation of results. Thesis. Bias of science

### **Recommended literature:**

Lectures at www.imbm.sk

Katz, MJ: From Research to Manuscript: A Guide to Scientific Writing, Springer, 2009

Glasser, SP: Essentials of Clinical Research, Springer, 2008

Doumont, J: English Communication for Scientists. Cambridge, MA: NPG Education, 2010

Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 620							
A B C D E FX							
1,77	9,35	21,45	27,74	30,0	9,68		
Lecturers: doc. RNDr. Ing. Peter Celec, DrSc., doc. MUDr. RNDr. Roman Gardlík, PhD.							
Last change: 03	<b>Last change:</b> 05.03.2020						

University: Comenius University in Bratislava								
Faculty: Faculty of Medicine								
Course ID:  LF.ÚSLLE/L-S-VLa-161-4/19   Course title: Introduction to the History of Medicine								
• •	ties: lecture							
Number of cree	dits: 2							
Recommended	semester: 8.							
Educational lev	vel: I.II.			_				
<b>Prerequisites:</b>								
Course require	ments:							
Learning outco	Learning outcomes:							
Class syllabus:								
Recommended literature:								
Languages nec	Languages necessary to complete the course:							
Notes:								
	Past grade distribution Total number of evaluated students: 18							
A	A B C D E FX							
100,0 0,0 0,0 0,0 0,0								
Lecturers: Mgr. Matej Gogola, PhD.								
Last change:	Last change:							
Approved by:	Approved by:							

University: Co	menius Universi	ty in Bratislava						
Faculty: Facult	y of Medicine							
Course ID: LF.ÚSLLE/L-S-	Course ID: Course title: Introduction to the History of Medicine							
	ties: lecture							
Number of cree	dits: 2							
Recommended	semester: 10.							
Educational lev	vel: I.II.							
Prerequisites:								
Course require	ments:							
Learning outco	omes:							
Class syllabus:								
Recommended	literature:							
Languages nec	essary to comp	ete the course:						
Notes:	,			_				
Past grade dist Total number o	ribution f evaluated stude	ents: 15						
A	В	С	D	Е	FX			
100,0	100,0 0,0 0,0 0,0 0,0							
Lecturers: Mgr	: Matej Gogola,	PhD.	<u> </u>					
Last change:								
Approved by:								

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚCJ/L-S-VLa-038/16 Latin Medical Terminology 1

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: per level/semester: 25s Form of the course: on-site learning

Number of credits: 1

**Recommended semester:** 1.

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

100% active attendance at seminars

Successful completion of midterm and final test with minimum 60% after addition of obtained per cent from both tests.

Test evaluation: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %, Fx: 59 % and less

### **Learning outcomes:**

Knowledge: To learn basic medical terminology with emphasis on anatomical nomenclature; basic grammatical minimum to understand the structure of professional anatomical terms. Predominantly professional terminology comprises the terms of Latin and Greek origin used in medicine (anatomical, pathological terms), as well as terms and phrases needed for prescriptions.

Skills: The ability to understand constructions of Latin anatomical terms and to use them correctly.

### Class syllabus:

Course syllabus summary:

Importance of the international medical terminology. Anatomical nomenclature and clinical terminology (differences). Declination of Latin and Greek nouns with emphasis on anatomical nomenclature. Prepositions. Adjectives 1st, 2nd and 3rd declination - comparison and use in anatomical nomenclature. Numbers in anatomical nomenclature.

### **Recommended literature:**

- 1. Galatová, J.: INTRODUCTION TO LATIN MEDICAL TERMINOLOGY FOR OVERSEAS STUDENTS OF MEDICAL SCHOOLS. Bratislava: Vydavateľstvo UK 2012.
- 2. Bujalková, M. Jurečková, A.: Terminologia Medica. Greco-Latin Medical Terminology. UK Bratislava 2013.

# Languages necessary to complete the course:

#### Notes:

Past grade dist	Past grade distribution							
Total number of evaluated students: 982								
A	В	С	D	Е	FX			
39,92	26,88	14,26	8,45	8,45	2,04			

**Lecturers:** PhDr. Tomáš Hamar, PhD., Mgr. Angela Škovierová, PhD., Mgr. Eva Taranová, PhD., Mgr. Oľga Vaneková, PhD., Mgr. Daniela Rošková, PhD., Mgr. Melinda Vasiľová, Mgr. Ema Pavľáková, PhD., Mgr. Ivan Lábaj, PhD., Mgr. Mária Šibalová, PhD., Ing. Janka Bábelová, PhD.

**Last change:** 21.03.2018

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚCJ/L-S-VLa-039/16 Latin Medical Terminology 2

**Educational activities:** 

**Type of activities:** practicals

**Number of hours:** 

per week: per level/semester: 25s Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 2.** 

**Educational level: I.II.** 

# **Prerequisites:**

### **Course requirements:**

100% attendance, successful completion of midterm and final test with minimum 60% after addition of obtained percent from both tests. Test evaluation: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

# **Learning outcomes:**

Knowledge: To gain knowledge in clinical terminology, creation of professional terms; reading, analysis and creation of medical reports; common pharmaceutical expressions and common formulas

Skills: To use clinical terminology; to prescribe medicaments; ability to understand autopsy reports and clinical diagnoses written in Latin and the ability to create medical reports.

### Class syllabus:

Importance of the international medical terminology. Anatomical nomenclature and clinical terminology (differences). Repetition and fixation of declensions. Cardinal and ordinal numbers. Structure and writing of prescriptions. Grammatical minimum of verbal structures - used at writing prescriptions and autopsy reports. Latin and Greek prefixes and suffixes and hybrid words - used in clinical and anatomical terminology. Basics of autopsy reports.

# **Recommended literature:**

- 1. Galatová, J.: INTRODUCTION TO LATIN MEDICAL TERMINOLOGY FOR OVERSEAS STUDENTS OF MEDICAL SCHOOLS. Bratislava: Vydavateľstvo UK 2012.
- 2. Bujalková, M. Jurečková, A.: Terminologia Medica. Greco-Latin Medical Terminology. UK Bratislava 2013.

# Languages necessary to complete the course:

# **Notes:**

### Past grade distribution

Total number of evaluated students: 903

A	В	С	D	Е	FX
50,5	29,46	12,29	3,88	3,65	0,22

**Lecturers:** PhDr. Tomáš Hamar, PhD., Mgr. Angela Škovierová, PhD., Mgr. Eva Taranová, PhD., Mgr. Oľga Vaneková, PhD., Mgr. Daniela Rošková, PhD., Mgr. Melinda Vasiľová, Mgr. Ema Pavľáková, PhD., Mgr. Ivan Lábaj, PhD., Mgr. Mária Šibalová, PhD., Ing. Janka Bábelová, PhD.

**Last change:** 21.03.2018

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚLChB/L-S-VLa-041/17 | Medical Biochemistry 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 36s Form of the course: on-site learning

Number of credits: 3

**Recommended semester: 3.** 

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

100 % presence at practical exercises and seminars.

Total evaluation is resulted from the average of points gained in all written tests (minimally 60 % of answers must be correct).

Total evaluation of the course: A: 91-100 %; B: 81-90 %; C: 73-80 %; D: 66-72 %;

E: 60-65 %; Fx: 59 % and less.

# **Learning outcomes:**

Knowledge: Students will acquire knowledge of metabolic pathways in intermediary metabolism of human cells. This forms the basis for explaining of specialized functions of human tissues and organs.

Skills: Students will gain practical experience in laboratory methods used in clinical biochemistry practice.

### Class syllabus:

Production of energy in animal cell and its compartmentation, specificity in production of energy in cells of various tissues, regulation of these processes. Metabolism of carbohydrates, lipids and proteins, interconversions of these metabolites according to the requirements of individual tissues and the whole organism, metabolic and hormonal regulation of these conversions. Meaning of citrate cycle in production of energy and interconversions of basic substrates. Role of individual organs in the synthesis and utilization of main energy sources (glycogen, triacylglycerols, ketone bodies), metabolic and hormonal regulation of their utilization. Synthesis of complex lipids and steroids, their roles in animal cell. Plasma lipoproteins transport forms of lipids in the organism, their metabolic conversions. Degradation of proteins for requirement of gluconeogenesis, its hormonal regulation. General reactions of amino acid metabolism, forms of ammonia detoxification and interorgan relationship, urea synthesis, consequences of defects in ammonia detoxification. Metabolism of individual amino acids, utilization of carbon skeleton of amino acids for production of energy, carbohydrates and lipids. Basis of synthesis and degradation of tetrapyrrols, production of hemoglobin and metabolic function of red blood cells, defect in porphyrins metabolism in humans.

## **Recommended literature:**

- 1. Practical exercises in biochemistry. Bratislava: Asklepios, the last edition
- 2. J. Baynes, M.H. Dominiczak: Medical biochemistry. Mosby, the last edition

# 3. P.C. Champe, R.A. Harvey: Biochemistry. J.B. Lippincott Company, the last edition

# Languages necessary to complete the course:

# **Notes:**

# Past grade distribution

Total number of evaluated students: 616

A	В	С	D	Е	FX
6,01	12,01	15,75	19,32	33,6	13,31

**Lecturers:** prof. MUDr. Ladislav Turecký, CSc., doc. RNDr. Jana Muchová, PhD., doc. MUDr. Viera Rendeková, CSc., doc. RNDr. Eva Uhlíková, CSc., doc. Ing. Ingrid Žitňanová, PhD., RNDr. Želmíra Barošková, doc. RNDr. Monika Ďurfinová, PhD., RNDr. Zuzana Országhová, PhD., Mgr. Ľubomír Kuračka, PhD.

**Last change:** 05.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚLChB/L-S-VLa-042/17 | Medical Biochemistry 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 36s / 36s Form of the course: on-site learning

**Number of credits:** 6

Recommended semester: 4.

**Educational level: I.II.** 

Prerequisites: LF.ÚLChB/L-S-VLa-037/16 - Medical Chemistry, LF.ÚLChB/L-S-VLa-041/17 -

Medical Biochemistry 1

# **Course requirements:**

100 % presence in practical exercises and seminars.

On the average minimally 60 % of correct answers in written tests.

Credits are awarded after passing the exam successfully.

Exam: written part (minimally 80 % of correct answers)

oral part -2 questions

# Learning outcomes:

Knowledge: Students will acquire knowledge of biochemical basis of functions in human tissues and organs.

They will get information about molecular mechanisms of organ function regulation from gene expression up to the whole organism level. This is needed for understanding of changes in biochemical processes under pathological conditions and after pharmacological treatment.

Skills: Students will master of more complicated laboratory methods used in clinical biochemistry.

### Class syllabus:

Synthesis and degradation of nucleotides, defects in purine nucleotide metabolism, hyperuricemia. Basis of genetic information transfer, mechanisms of DNA, RNA and protein synthesis. Regulation of gene expression. Nutrition and specific metabolic functions of organs in integration of metabolism. Vitamins as essential food components. Gastrointestinal tract and digestion. Biochemistry of the liver. Synthesis and degradation of tetrapyrrols, bilirubin metabolism. Biochemical aspects of homeostasis, role of the kidneys in regulation of internal environment, acid base balance. Metabolism of water and minerals. Mechanism of signal transductions into cells. Biochemical basis of nerve functions. Vegetative nervous system. Hormones and their regulatory roles. Synthesis and function of eicosanoids. Biochemistry of muscles and connective tissue, composition and metabolism of bones. Biochemistry of blood. Biochemical parameters and their evaluation, determination of enzyme activities in blood and their meaning in clinical practice.

#### **Recommended literature:**

- 1. P.C. Champe, R.A. Harvey: Biochemistry. J.B. Lippincott Company, the last edition
- 2. J. Baynes, M.H. Dominiczak: Medical biochemistry. Mosby, the last edition
- 3. Marks': Basic medical biochemistry, J.B. Lippincott Company, the last edition

#### Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 451 C A В D E FX 20,4 11,09 14,86 17,96 24,61 11,09

**Lecturers:** prof. MUDr. Ladislav Turecký, CSc., doc. MUDr. Viera Rendeková, CSc., doc. RNDr. Eva Uhlíková, CSc., doc. RNDr. Monika Ďurfinová, PhD.

**Last change:** 05.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚLFBIT/L-S-VLa-040/16 | Medical Biophysics

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 36s Form of the course: on-site learning

**Number of credits: 8** 

**Recommended semester:** 1.

**Educational level: I.II.** 

# **Prerequisites:**

### **Course requirements:**

- 100% attendance at practicals
- pass 2 written tests (at least 60%)
- elaborate 10 protocols from practicals
- elaborate semestral thesis

Final Exam: written part – pass the test (at least 60%)

theoretical part – 1 question from theoretical part, 1 question from practicals, interview about semestral thesis

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %,

E: 60 - 65 %, Fx: 59 % and less

Total score is determined from the average of achieved grades.

## **Learning outcomes:**

Knowledge: Provides students physical literacy by which they would acquire physical knowledge about the functions of human body both in health, and in disease. Educate students in preventing damage to the organism caused by adverse effects of physical factors or specifically eliminating them. Allow students to acquire theoretical knowledge during the effective use of diagnostic and therapeutic methods in medicine.

Skills: Ability and skills to use diagnostic and therapeutic methods in medicine. Apply knowledge in practice in health protection from physical factors (radiation) and their minimalization.

## Class syllabus:

Biomechanics of organ systems. Biological oscillations – biological rhythms. Physical characteristics of the cells, tissues and organs. Principles of Molecular Biophysics and interaction of physical, chemical and biological factors with organic substances, cells and tissues. Principles of diagnostic and therapeutic methods and biomedical monitoring. Biomaterials useful in medicine.

## Recommended literature:

Hrazdira I, Morstein V, Škorpíková J. Lekářská biofyzika a přístrojová technika. Brno, Neptun, 2006, ISBN 80-86850-01-3

Navrátil L, Rosina J. Medicínska biofyzika. Praha, Grada, 2005, ISBN 80-247-1152-4 Kukurová E. Basics of Medical Physics and Biophysics for electronic education of health professionals. ASKLEPIOS, Bratislava, 2013 ISBN 978-80-7167-177-0

Kukurová E, Medical Physics in questions and answers. . ASKLEPIOS, Bratislava, 2013, I SBN 978–80–7167–174–3

# Languages necessary to complete the course:

### **Notes:**

# Past grade distribution

Total number of evaluated students: 950

A	В	С	D	Е	FX
4,11	18,84	37,68	23,37	7,89	8,11

Lecturers: doc. RNDr. Martin Kopáni, PhD., doc. RNDr. Elena Ferencová, CSc., doc. Mgr. PaedDr. Viera Haverlíková, PhD., doc. RNDr. Mgr. Katarína Kozlíková, CSc., doc. RNDr. Pavol Vitovič, PhD., RNDr. Zuzana Balázsiová, PhD., doc. RNDr. Beata Čunderlíková, PhD., Mgr. Barbora Filová, PhD., Mgr. Radana Gurecká, PhD., Ing. Daniel Kosnáč, RNDr. Eva Kráľová, PhD., Ing. Alexandra Wagner, PhD., RNDr. Jaroslav Varchola, PhD.

Last change: 08.12.2016

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚLChB/L-S-VLa-037/16 | Medical Chemistry

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 36s / 36s Form of the course: on-site learning

Number of credits: 7

Recommended semester: 2.

**Educational level: I.II.** 

**Prerequisites:** 

## **Course requirements:**

Course requirements:

Conditions for acceptation of practical education:

- 100% attendance of practices and seminars
- passing 10 written tests (for each test needed 60 % of points at least)

Exam: - test (needed 70 % of points at least)

# **Learning outcomes:**

Knowledge:

- acquirement of knowledge of relationship between the structure, properties and biological functions of biogenic compounds for effective study and comprehensive understanding of metabolic processes in the human organism and their regulation
- acquirement of basic knowledge of inorganic and organic compounds toxicity Skills:
- obtaining the ability to understand the basics of metabolism and molecular mechanisms of function of human organs and tissues
- obtaining the practical experiences in a field of physico-chemical and biochemical methods used in laboratory and clinical practices

### Class syllabus:

Lectures: Chemical composition of living systems and function of biogenic elements in organism. Toxicologically important elements and their compounds. Bioreactive forms of oxygen, nitrogen and chlorine. The structure, properties and biochemically important reactions of natural compounds - saccharides, lipids, proteins, nucleic acids and vitamins. Chemical modification of the structure of biomolecules and its relation to their biological functions. Nonenzymatic glycation in diabetes mellitus, homo- and heteropolysaccharides, chemical composition and function of biological membranes, regulatory importance of eicosanoids and steroids, peptide hormones and other biologically active peptides and proteins. Mutagenic reagents. Oxidative stress and antioxidative systems. Enzymes – their structure and biological function, kinetics and mechanism of their action, regulation of catalytical efficiency of enzymes in the organism. The importance and application of enzymes in medicine.

Seminars and practicals: Principles of physico-chemical methods and their practical application in laboratory diagnostics (spectrophotometry, potentiometry, chromatography). Determination of selected metal ions in biological material and their influence to erythrocytes fragility. Preparation of solutions, measurement of body fluids pH, qualitative and quantitative determination of important physiological and pathological metabolites (urea, glucose, ketone bodies, total lipids, malondialdehyde), Thin layer and gel chromatography determination of amino acids and proteins, determination and calculation of enzymes activities, study of effects of different factors.

## **Recommended literature:**

Országhová Z., Žitňanová I. et al.: Medical Chemistry. Vydavateľstvo UK, Bratislava, 2010, 272 s.

Hrnčiarová M. et al.: Medical Chemistry, Laboratory part, Asklepios, 1993 Holum J.R.: Fundamentals of General, Organic and Biological Chemistry, 6th Edition, John Wiley and Sons Inc., New York, 1998

# Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 814

A	В	С	D	Е	FX
2,95	10,44	23,34	22,6	23,96	16,71

Lecturers: prof. Ing. Zdeňka Ďuračková, PhD., prof. MUDr. Ladislav Turecký, CSc., doc. PharmDr. Vladimír Jakuš, CSc., doc. RNDr. Jana Muchová, PhD., doc. Ing. Ingrid Žitňanová, PhD., RNDr. Lucia Andrezálová, PhD., RNDr. Zuzana Országhová, PhD., RNDr. Želmíra Barošková, Mgr. Ľubomír Kuračka, PhD., doc. RNDr. Monika Ďurfinová, PhD., Mgr. Monika Dvořáková, PhD., doc. MUDr. Viera Rendeková, CSc., Ing. Miriama Ježovičová, PhD., MUDr. Peter Ščigulinský, RNDr. Mgr. Marián Koláček, PhD., doc. RNDr. Eva Uhlíková, CSc., Ing. Lucia Laubertová, PhD., RNDr. Zuzana Paduchová, PhD.

Last change: 21.03.2018

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.ÚSLLE/L-S-VLa-044/17

**Medical Ethics** 

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 24s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

**Educational level: I.II.** 

# **Prerequisites:**

### **Course requirements:**

To take part in all lectures and seminars, deliver the semestral essay in writing form, pass the final credit test (minimum 60% of right answers).

## **Learning outcomes:**

Knowledge:

After successful completion of the course student will be able to:

- define the basic terms, related to Medical Ethics and Bioethics;
- understand the basic paradigms of medical ethics, be oriented and understand the most important milestones from the history of medical ethics;
- identify national and international declarations, ethical codes and conventions related to health care:
- understand the interdisciplinary relationships between ethics, medical ethics, bioethics and related sciences:
- identify and understand the actual ethical and bioethical dilemmas in diverse branches of medicine. Skills:

After successful completion of the course student will be able to:

- discuss and realize cultivated dialogue and to develop critical thinking;
- perceive ethical side of decision-making;
- perceive bioethical problems in medical practice;
- apply professional freedom, own opinion and make conclusions;
- analyse ethical problem, to use acquired knowledges in argumentation and to adopt own position;
- apply principles of national and international declarations, ethical codes and conventions in the medical practice;
- respect the basic human rights and to solve ethical problem in the context of holistic approach to patients;
- protect the human dignity, honesty and value of each human life in whole human ontogenesis.

## Class syllabus:

General part: Introduction into the study of Medical Ethics – the basic terms and definitions. Moral categories. Moral norms. Historical development of medical ethics. Human as bio-psychospiritual-social individual in a health and in an illness. Respect of human dignity, human integrity

and human individuality. Conscience and reservation in conscience in medical practice. Ethos of medical doctor and physician's virtues. Models of ethical consideration and ethical decision-making in medicine. The basic principles of medical ethics, ethical/legal conflicts between them. Relationship between medical doctor and patient, between medical doctor and relatives of patient, between health professionals, optimal communication in a health care. Ethical codes, national and international documents and declarations. Informed consent. Human rights in health care.

Special part: Ethical problems in the beginning of human life (statute of living human embryo, artificially induced termination of pregnancy-abortion, preimplantation and prenatal diagnostics, medically assisted human reproduction). Ethical problems in the end of human life (introduction into the palliative medicine, hospice care). Euthanasia and assisted suicide. Ethical dilemmas in medical care for vulnerable groups of population. Transplantation of human organs from ethical and legal point of view. Ethical aspects of biomedical research with participation of human subjects. Ethical aspects of caring for psychiatric patients.

#### **Recommended literature:**

Williams, J. R. Medical Ethics Manual World Medical Association/WMA 3rd edition 2015. ISBN 978-92-990079-0-7. Available on http://www.wma.net/en/30publications/30ethicsmanual/pdf/ Ethics\_manual\_3rd\_Nov2015\_en.pdf.

Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine (Oviedo). Convention on Human Rights and Biomedicine, Directorate of Legal Affairs, Council of Europe, Strassbourg, Nov 1996. Available on: http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/164

Medical Ethics Today: The BMA's Handbook of Ethics and Law (3). British Medical Association, Chichester: John Wiley and Sons, 2012.

Journal Medical Ethics & Bioethics/Medicínska etika & bioetika. ISSN 1335-0560. Available on http://www.bioethics.sk/journal-me-and-b.

### Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 784

A	В	С	D	Е	FX
42,6	33,55	14,16	4,46	4,34	0,89

**Lecturers:** doc. MUDr. Vojtech Ozorovský, CSc., MUDr. Mária Mojzešová, PhD., MUDr. Ján Štvrtina, Mgr. Mária Kolesárová, PhD.

Last change: 05.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

Course title:
Medical Ethics

**Educational activities:** 

LF ÚSLLE/L-VLa-054/00

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 24s Form of the course: on-site learning

Number of credits: 1

**Recommended semester:** 7.

**Educational level: I.II.** 

# **Prerequisites:**

### **Course requirements:**

To take part in all lectures and seminars, deliver the semestral essay in writing form, pass the final credit test (minimum 60% of right answers).

# **Learning outcomes:**

Knowledge:

After successful completion of the course student will be able to:

- define the basic terms, related to Medical Ethics and Bioethics;
- understand the basic paradigms of medical ethics, be oriented and understand the most important milestones from the history of medical ethics;
- identify national and international declarations, ethical codes and conventions related to health care:
- understand the interdisciplinary relationships between ethics, medical ethics, bioethics and related sciences:
- identify and understand the actual ethical and bioethical dilemmas in diverse branches of medicine. Skills:

After successful completion of the course student will be able to:

- discuss and realize cultivated dialogue and to develop critical thinking;
- perceive ethical side of decision-making;
- perceive bioethical problems in medical practice;
- apply professional freedom, own opinion and make conclusions;
- analyse ethical problem, to use acquired knowledges in argumentation and to adopt own position;
- apply principles of national and international declarations, ethical codes and conventions in the medical practice;
- respect the basic human rights and to solve ethical problem in the context of holistic approach to patients;
- protect the human dignity, honesty and value of each human life in whole human ontogenesis.

## Class syllabus:

General part: Introduction into the study of Medical Ethics – the basic terms and definitions. Moral categories. Moral norms. Historical development of medical ethics. Human as bio-psychospiritual-social individual in a health and in an illness. Respect of human dignity, human integrity

and human individuality. Conscience and reservation in conscience in medical practice. Ethos of medical doctor and physician's virtues. Models of ethical consideration and ethical decision-making in medicine. The basic principles of medical ethics, ethical/legal conflicts between them. Relationship between medical doctor and patient, between medical doctor and relatives of patient, between health professionals, optimal communication in a health care. Ethical codes, national and international documents and declarations. Informed consent. Human rights in health care.

Special part: Ethical problems in the beginning of human life (statute of living human embryo, artificially induced termination of pregnancy-abortion, preimplantation and prenatal diagnostics, medically assisted human reproduction). Ethical problems in the end of human life (introduction into the palliative medicine, hospice care). Euthanasia and assisted suicide. Ethical dilemmas in medical care for vulnerable groups of population. Transplantation of human organs from ethical and legal point of view. Ethical aspects of biomedical research with participation of human subjects. Ethical aspects of caring for psychiatric patients.

#### **Recommended literature:**

Williams, J. R. Medical Ethics Manual World Medical Association/WMA 3rd edition 2015. ISBN 978-92-990079-0-7. Available on http://www.wma.net/en/30publications/30ethicsmanual/pdf/ Ethics manual 3rd Nov2015 en.pdf.

Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine (Oviedo). Convention on Human Rights and Biomedicine, Directorate of Legal Affairs, Council of Europe, Strassbourg, Nov 1996. Available on: http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/164

Medical Ethics Today: The BMA's Handbook of Ethics and Law (3). British Medical Association, Chichester: John Wiley and Sons, 2012.

Journal Medical Ethics & Bioethics/Medicínska etika & bioetika. ISSN 1335-0560. Available on http://www.bioethics.sk/journal-me-and-b.

### Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 763

A	В	С	D	Е	FX
58,32	25,29	11,27	3,41	1,7	0,0

Lecturers: MUDr. Mária Mojzešová, PhD., MUDr. Ján Štvrtina, Mgr. Mária Kolesárová, PhD., MUDr. Lucia Krčméryová

Last change: 22.12.2016

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.PK/L-S-VLa-043/17 | Medical Psychology and Communication

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 10s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 4.

**Educational level: I.II.** 

# **Prerequisites:**

## **Course requirements:**

100% attendance at practicals

Written exam (minimum 60%)

Test results: A: 91-100%, B:81-90%, C:73-80%, D:66-72%, E: 60-65%, FX: less than 59%

Oral exam: 2 questions Overall valuation will be assigned due to the average of obtained valuations.

### **Learning outcomes:**

Knowledge: To learn and understand General and Developmental Psychology, Psychology of Patient (Patopsychology), Doctor and Healthcare Environment, Learn Psychology of Clinical Examination and Treatment (Placebo effect)

Skills: To handle Communication with Patient – General Principles, Elaborate Identification of Distortion Factors, mastering Model play of Coping with Selected Situations in Contact Doctor - Patient – Adults and Children

### Class syllabus:

Psychic Functions and Processes, Developmental Stages and their specifics, Patient's Coping with Disease – factors and their identification. Practice of Techniques and Principles of Communication with Patient – children and adults, use of Clinical Examination Model, Modelling of patients attitudes towards disease, Placebo effect, Selected clinical and psychological problems

## **Recommended literature:**

ŽUCHA, I. et al.: Medical Psychology. Bratislava: UK, 2013, 92 pp., ISBN 978-80-223-3371-9. COATES, G. T.: Notes of Communication: A Few Thoughts about the Way We Interact With the Poeple We Meet. (online), 180 pp. (cit.2013-06-12). Free e-book from www.wanterfall.com. Dostupné na http://www.wanterfall.com/Downloads/Communication.pdf

WELSBY, P. D.: Communication Skills in the Medical Interview (online). (Modified:

16/06/2008 12:20, 17pp (cit.2013-06-12. Free e-book from www.wanterfall.com.

Dostupné na

http://faculty.ksu.edu.sa/drfahad/Articles/communication%20Skills%20in%20the%20Medical%20Interview.PDF

## Languages necessary to complete the course:

**Notes:** 

	Past grade distribution									
	Total number of evaluated students: 581									
A B C D E F										
	3,1	34,25	40,1	16,35	4,3	1,89				

Lecturers: prof. MUDr. Ján Pečeňák, CSc., doc. PhDr. Eva Morovicsová, PhD., MPH, doc. MUDr. Jana Trebatická, PhD., MUDr. Mária Králová, CSc., doc. MUDr. Ľubomíra Izáková, PhD., doc. MUDr. Tatiana Čaplová, CSc., PhDr. Michal Hajdúk, PhD., MUDr. Peter Janík, PhD., MUDr. Viktor Segeda, MUDr. Michal Turček, PhD., Mgr. Miroslava Zimányiová, PhD., PhDr. Zuzana Hradečná, MUDr. Zuzana Matzová, PhD., doc. MUDr. Igor Škodáček, PhD.

**Last change:** 05.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

Course title:

LF.ÚLFBIT/L-S-VLa-140/19

**Medical Statistics** 

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level: I.II.** 

## **Prerequisites:**

## **Course requirements:**

Final Exam:

Practical part (50%): application of methods – calculations, graphs (at least 60%)

Theoretical part (50%): written test (at least 60%)

Evaluation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %,

E: 60 - 65 %, Fx: 59 % and less

Total score is determined from the average of achieved grades.

## **Learning outcomes:**

Knowledge: After successful completion of the course students will be familiar with the methods for statistical processing of medical data acquired from low-represented and big studies as well as their different graphical presentations.

Skills: After successful completion of the course, students will be able to select an adequate use of different statistical methods for statistical processing of medical data acquired from low-represented and big studies as well as their different graphical presentations.

### Class syllabus:

The measurement and statistical processing of data in medicine. Probability and random variables. Population, choice, character. Descriptive statistics - selective characteristics. Theoretical probability distributions and their applications to biomedical measurements. Remote observations. Inductive statistics - hypothesis testing for one or two selections, paired and unpaired comparisons - parametric and non-parametric tests, confidence intervals. Testing dependability - regression and correlation. Testing frequency - pivot tables. Comparing multiple selections, monitoring of factors - analysis of variance. Analysis of survival - survival curve, time series. Discriminatory principles and cluster analysis. Data interpretation - use of statistical tables. Graphical presentation of data. Graphic and statistical data processing using a computer. Criteria for choosing the correct test and chart.

# **Recommended literature:**

Kozlíková, K., Martinka, J. Základy spracovania biomedicínskych meraní II. Bratislava :

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

Kozlíková, K., Martinka, J. Theory and Tasks for Practicals on Medical Biophysics. Brno:

Tribun, 2010. 248 s. ISBN 978-80-7399-881-3 – selected parts

Hawkins, D.M. Biomeasurement. New York: Oxford University Press, 2005. 284 p. ISBN 978-0-19-926515-2

Prednášky na portáli Mefanet – section Biophysics and Medical informatics and information science (http://portal.fmed.uniba.sk/)

Additional e-course (www.moja.uniba.sk).

Guide to MS Excel.

StatSoft - Electronic Statistics Textbook. [cit. 3 December, 2013]. Available at: http://www.statsoft.com/textbook/stathome.html

Stark, Ph.B. SticiGui: Statistics Tools for Internet and Classroom Instruction with a Graphical User Interface. [cit. 3 December, 2013]. Available at: http://www.stat.berkeley.edu/~stark/SticiGui/

SISA - Simple Interactive Statistical Analysis. [cit. 3 December, 2013]. Available at: http://www.quantitativeskills.com/sisa/

Other available innovated literary and internet sources.

# Languages necessary to complete the course:

### **Notes:**

## Past grade distribution

Total number of evaluated students: 0

A	В	С	D	Е	FX
0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Mgr. Katarína Kozlíková, CSc.

Last change: 05.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.MÚ/L-S-VLa-045/17

Microbiology 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 24s Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 4.

**Educational level: I.II.** 

Prerequisites: LF. ÚLBG/L-S-VLa-007/16 - Biology and Human Genetics 2

# **Course requirements:**

100% attendance at practicals

- 2 written tests; each with the minimum success rate of 60 %
- final test with the minimum success rate of 60%

Evaluation: A: 100-91%, B: 90-81%, C: 80-73%, D: 72-66%, E: 65-60%, Fx: 59 % and less

The total evaluation is determined from average of the obtained evaluations

# **Learning outcomes:**

Knowledge:

- morphology, structure and physiology of microorganisms, genetic processes important from the point of view of human medicine, virulence factors of microorganisms
- interaction of microorganisms and the humans, normal human microflora, pathogenicity of microorganisms for humans, establishment, progression and sequelae of diseases caused by microorganisms, interaction of microorganisms with the human immune system
- antimicrobial strategies, prevention of infectious diseases (disinfection, sterilization, antimicrobial therapy, active and passive immunization)
- basics of microbiologic diagnostics of infectious diseases and interpretation of results
- knowledge about the particular agents of infectious diseases of humans Skills:
- preparation and evaluation of microscopical preparations of biological samples and pure bacterial and fungal cultures
- detection of microbial antigens in the biological samples using rapid diagnostic tests
- inoculation of the biological samples on culture media, pure culture technique
- performing and evaluation of simple biochemical and serological identification tests
- performing, evaluation and interpretation of antimicrobial susceptibility tests
- performing and interpretation of serological tests for detection of specific antibodies, used in microbiology

# Class syllabus:

Lectures: Microorganisms and humans. Development and course of infectious diseases. Basics of bacteriology – morphology, anatomy, growth, metabolism, genetics. Pathogenicity and virulence; virulence factors of bacteria. Klassification of bacteria – grampositive, gramnegative bacteria.

Staphylococci, streptococci, the other grampositive bacteria. Gramnegative cocci, haemophilli and the other fastidious gramnegative bacteria. Enterobacteriacea,e Campylobacter, Helicobacter, Vibrio. Pseudomonas, Acinecobacter, and the other gramnegative nonfermenting bacteria. Mycobacterium tuberculosis and the other mycobacteria. Treponema, Borrelia, Leptospira. Chlamdia Mycoplasma, Rickettsia, Coxiella. Anaerobic spore-forming and non-spore-forming bacteria. The basics of medical virology. DNA and RNA viruses important for human medicine. Medical parasitology ans parasites important for human medicine.

Practicals: The basics of sampling and transport of biological samples for microbiological laboratory diagnostics. Direct and indirect microbiological diagnostics. Laboratory diagnostics of bacterial, viral, fungal and parasital infections.

### Recommended literature:

Murray, P.R. et al.: Medical Microbiology. 8th ed. Philadelphia: Elsevier, 2016. 848 pp.

Shunnar, A. et al: Manual for the practical exercises in microbiology. Protocols. Bratislava:

Comenius University, 2009, 89 pp.

Shunnar, A. et al: Manual for the practical exercises in microbiology. Theoretical introduction.

Bratislava: Comenius University, 2011, 172 pp.

Recommended study literature:

Engleberg, N.C. et al: Schaechter's Mechanisms of Microbial Disease. 4th ed. Baltimore:

Lippincott Williams and Wilkins, 2007. 762 pp.

## Languages necessary to complete the course:

### **Notes:**

## Past grade distribution

Total number of evaluated students: 606

Α	В	С	D	Е	FX
28,71	38,78	23,93	4,46	3,63	0,5

Lecturers: doc. RNDr. Nasir Ahmad Jalili, CSc., MPH, prof. MUDr. Vladimír Krčméry, DrSc., doc. MUDr. Adriana Liptáková, PhD., MPH, doc. RNDr. Lívia Slobodníková, CSc., Mgr. Zuzana Hubenáková, PhD., RNDr. Lucia Janošíková, MUDr. Ján Koreň, PhD., RNDr. Ján Predný, RNDr. Magdaléna Šimkovičová, CSc., RNDr. Katarína Schwarzová, PhD., Mgr. Marek Straka

Last change: 05.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.MÚ/L-S-VLa-046/18

Microbiology 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 24s

Form of the course: on-site learning

Number of credits: 4

**Recommended semester: 5.** 

**Educational level: I.II.** 

Prerequisites: LF.MÚ/L-S-VLa-045/17 - Microbiology 1

## **Course requirements:**

100% attendance at practicals

- 2 written tests; each with the minimum success rate of 60 %
- final test with the minimum success rate of 60%

Evaluation: A: 100-91%, B: 90-81%, C: 80-73%, D: 72-66%, E: 65-60%, Fx: 59 % and less

Exam: written part - test with the minimum success rate of 60%

theoretical part - 3 questions (general microbiology, special microbiology, the basics of clinical microbiology and antiinfectious immunity)

The final evaluation is determined from average of the obtained evaluations

## **Learning outcomes:**

Knowledge:

- knowledge about agents of infectious diseases of the particular organs and organ systems, about the mode of their transmission and the most important virulence factors used in the pathogenesis
- predisposing factors for establishment of infectious diseases of the particular organs and organ systems, about the possibility of their prevention and therapy
- sampling and transport of material corresponding to infectious diseases of particular organs and organ systems and the corresponding microbiological diagnostics

on the model patients, evaluation and interpretation of microbiological diagnostical tests used in the diagnostics of diseases of microbial etiology of the particular organs and organ systems

### Class syllabus:

Lectures: Introduction to clinical microbiology. Laboratory diagnostic methods. Disinfection, sterilization, decontamination. Antimicrobial agents – antibiotics, resistance, side effects. Antiinfectious immunity. Active and passive immunization. Normal microbial flora of the respiratory tract. Infections of the upper and lower respiratory tract, atypical infections, tuberculosis. Normal microbial flora of the GIT. Infections of the GIT, infections of liver and the bile duct. Normal microbial flora of the skin. Infections of the skin and subcutaneous tissue, osteomyelitis. Infections in orthopedics. Normal microbial flora of the genital system. Infections of the genital system. Sexually transmitted diseases. Perinatal and congenital infections. Normal microbial flora of the uropoetic system. Infections of the

eye. Bioterrorism. Bacteremia, sepsis, cardiovascular infections. Endocarditis. Epidemiology and prevention of infections. Nosocomial infections. Infections caused by resistant bacteria. Infections of the immunocompromised patient. The problematics of HIV and viral infections.

Practicals: Antimicrobial susceptibility testing. Laboratory diagnostics of microbial diseases of respiratory and gastrointestinal tract, skin and soft tissue, bones, urogenital system. Diagnostics of infection of the foetus and newborn. Diagnostics of neuroinfections, infections of eye, sepsis and endocarditis.

### **Recommended literature:**

Murray, P.R. et al.: Medical Microbiology. 8th ed. Philadelphia: Elsevier, 2016. 848 pp.

Shunnar, A. et al: Manual for the practical exercises in microbiology. Protocols. Bratislava: Comenius University, 2009, 89 pp.

Shunnar, A. et al: Manual for the practical exercises in microbiology. Theoretical introduction.

Bratislava: Comenius University, 2011, 172 pp.

Recommended study literature:

Engleberg, N.C. et al: Schaechter's Mechanisms of Microbial Disease. 4th ed. Baltimore:

Lippincott Williams and Wilkins, 2007. 762 pp.

## Languages necessary to complete the course:

#### Notes:

## Past grade distribution

Total number of evaluated students: 349

A	В	С	D	Е	FX
27,79	22,35	17,77	12,03	13,18	6,88

**Lecturers:** prof. MUDr. Vladimír Krčméry, DrSc., doc. MUDr. Adriana Liptáková, PhD., MPH, doc. RNDr. Nasir Ahmad Jalili, CSc., MPH, doc. RNDr. Lívia Slobodníková, CSc., Mgr. Zuzana Hubenáková, PhD., MUDr. Ján Koreň, PhD., RNDr. Katarína Schwarzová, PhD., Mgr. Marek Straka

Last change: 05.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚLFBIT/L-S-VLa-142/19 | Modern Biophysics: From nanoparticles to quantum brain

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

# **Prerequisites:**

### **Course requirements:**

80 % attendance on the lectures, final essay + its defense

# **Learning outcomes:**

Knowledge: to gain information on "the state of art" knowledge in the areas of modern medicine, where experimental and diagnostic methods based on physical theories are heavily used. Students gain knowledge on theory of physical principles and phenomena will be taught through recent scientific works. Artificial intelligence in medicine, how it works, what is its potential usage and where lie its limits.

Skills: basic level of working with brain modelling software Neuron, electron microscope

## Class syllabus:

Introduction do modern biophysics, Bio-magnetism, Nanoparticles, Physical phenomena in human brain, DNA and chemical bonds, Thermodynamics: Entropy and the arrow of time, Bioenergetics, Experimental methods in medical physics, Artificial intelligence in medicine, Machine Learning, Structure of consciousness, Quantum brain hypothesis

## Recommended literature:

1. Davidovits, P. Physics in Biology and Medicine. San Diego, Elsevier, 2008, ISBN 978-0-12-369411-9

## Languages necessary to complete the course:

## **Notes:**

# Past grade distribution

Total number of evaluated students: 3

A	В	С	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Martin Kopáni, PhD.

**Last change:** 05.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.NK1/L-S-VLa-047/19

Neurology 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 25s Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 7.

**Educational level:** I.II.

Prerequisites: LF. ÚPA/L-S-VLa-055/18 - Pathological Anatomy 2, LF. ÚPF/L-S-VLa-057/18 -

Pathological Physiology 2

## **Course requirements:**

100 % attendance on practicals, patient examination and elaboration of complete patient record, written test – minimum 70 %

Test grading: A: 95 - 100 %, B: 89 - 94 %, C: 83 - 88 %, D: 77 - 82 %, E: 70 - 76 %,

Fx: 0 - 69 %

## **Learning outcomes:**

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

### Class syllabus:

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

## **Recommended literature:**

Biller J et al: The Neurological Examination, 6th ed., The McGraw-Hill Companies Inc, 2011, Benarroch E et al: Mayo Clinic Medical Neurosciences, 5th ed., Mayo Clinic Scientific Press 2008,

# Languages necessary to complete the course:

### **Notes:**

## Past grade distribution

Total number of evaluated students: 258

A	В	С	D	Е	FX
1,16	12,79	31,78	23,26	30,23	0,78

Lecturers: 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., doc. MUDr. Marek Sýkora, PhD., doc. MUDr. Pavel Šiarnik, PhD., doc. MUDr. Stanislav Šutovský, PhD., doc. MUDr. Gabriela Timárová, PhD., MUDr. Zoltán Goldenberg, PhD., MUDr. Katarína Klobučníková, PhD., MUDr. Marián Kondáš, PhD., MUDr. Jozef Szabó, PhD., MUDr. Iveta Lisá, CSc., MUDr. Jana Martinková, PhD.

**Last change:** 05.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.NK1/L-VLa-055/11 Neurology 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 25s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 7.

**Educational level: I.II.** 

# **Prerequisites:**

### **Course requirements:**

100~% attendance on practicals, patient examination and elaboration of complete patient record, written test – minimum 70~%

Test grading: A: 95 - 100 %, B: 89 - 94 %, C: 83 - 88 %, D: 77 - 82 %, E: 70 - 76 %,

Fx: 0 - 69 %

### Learning outcomes:

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

## Class syllabus:

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

### **Recommended literature:**

Biller J et al: The Neurological Examination, 6th ed., The McGraw-Hill Companies Inc, 2011, Benarroch E et al: Mayo Clinic Medical Neurosciences, 5th ed., Mayo Clinic Scientific Press 2008

## Languages necessary to complete the course:

### **Notes:**

# Past grade distribution

Total number of evaluated students: 847

A	В	С	D	Е	FX
1,3	9,56	21,96	32,35	32,11	2,72

Lecturers: prof. MUDr. Peter Turčáni, PhD., prof. MUDr. Peter Kukumberg, PhD., prof. MUDr. Pavel Traubner, PhD., prof. MUDr. Branislav Kollár, PhD., MPH, doc. MUDr. Jaroslav Pancák, PhD., prof. MUDr. Peter Valkovič, PhD., doc. MUDr. Karin Gmitterová, PhD., MUDr. Zoltán Goldenberg, PhD., MUDr. Marián Kondáš, PhD., MUDr. Iveta Lisá, CSc., MUDr. Jana Martinková, PhD., doc. MUDr. Marek Sýkora, PhD., doc. MUDr. Stanislav Šutovský, PhD., doc. MUDr. Gabriela Timárová, PhD., doc. MUDr. Pavel Šiarnik, PhD., MUDr. Jozef Szabó, PhD., MUDr. Zuzana Košutzká, PhD., doc. MUDr. Michal Minár, PhD., MUDr. Darina Slezáková, PhD., MUDr. Darina Petrleničová, PhD., MUDr. Katarína Klobučníková, PhD.

Last change: 07.12.2016

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:
LF.NK1/L-S-VLa-048/19

Course title:
Neurology 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 26s / 25s Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 8.

**Educational level: I.II.** 

Prerequisites: LF.NK1/L-S-VLa-047/19 - Neurology 1

# **Course requirements:**

100 % attendance on practicals, patient examination and elaboration of complete patient record, written test – minimum 70 %

Test grading: A: 95 - 100 %, B: 89 - 94 %, C: 83 - 88 %, D: 77 - 82 %, E: 70 - 76 %,

Fx: 0 - 69 % Oral examination

## **Learning outcomes:**

Knowledge: etiopathogenesis, clinical manifestation, diagnostic and therapy of cerebrovascular diseases, epilepsy, headache and craniofacial pain, neurodegenerative diseases, vertebrogenic disorders, tumors of nervous system, infections of nervous system, demyelinating diseases, disorders of peripheral nervous system, disorders of neuromuscular transmission, disorders of skeletal muscles, trauma of nervous system, neurological complications of systemic disease Skills: identification of signs and symptoms of common neurological disorders, using laboratory tests in diagnosis of neurological diseases, interpretation of laboratory findings in context of clinical picture, generation a list of possible causes of patients signs and symptoms, elaboration of therapeutic program

## Class syllabus:

cerebrovascular diseases, epilepsy, headache and craniofacial pain, neurodegenerative diseases, vertebrogenic disorders, tumors of nervous system, infections of nervous system, demyelinating diseases, disorders of peripheral nervous system, disorders of neuromuscular transmission, disorders of skeletal muscles, trauma of nervous system, neurological complications of systemic disease

## Recommended literature:

Ropper AH et al: Adams&Victor's Principles of Neurology, 9th ed, The McGraw-Hill Companies, Inc. 2009.

Bradley WQ et al: Neurology in Clinical Practice, 5th ed, Butterworth-Heinemann, 2007

### Languages necessary to complete the course:

Notes:

Past grade dist	Past grade distribution									
Total number of evaluated students: 115										
A B C D E FX										
1,74	5,22	15,65	31,3	44,35	1,74					

Lecturers: prof. MUDr. Peter Turčáni, PhD., prof. MUDr. Branislav Kollár, PhD., MPH, prof. MUDr. Peter Valkovič, PhD., doc. MUDr. Michal Minár, PhD., doc. MUDr. Jaroslav Pancák, PhD., doc. MUDr. Marek Sýkora, PhD., doc. MUDr. Stanislav Šutovský, PhD., doc. MUDr. Gabriela Timárová, PhD., MUDr. Zoltán Goldenberg, PhD., MUDr. Marián Kondáš, PhD., MUDr. Iveta Lisá, CSc., prof. MUDr. Pavel Traubner, PhD., doc. MUDr. Pavel Šiarnik, PhD.

**Last change:** 05.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

**Course ID:** 

**Course title:** LF NK 1/L-VLa-056/11 Neurology 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 26s / 25s Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 8.

**Educational level: I.II.** 

**Prerequisites:** 

# **Course requirements:**

## **Learning outcomes:**

Knowledge: etiopathogenesis, clinical manifestation, diagnostic and therapy of cerebrovascular diseases, epilepsy, headache and craniofacial pain, neurodegenerative diseases, vertebrogenic disorders, tumors of nervous system, infections of nervous system, demyelinating diseases, disorders of peripheral nervous system, disorders of neuromuscular transmission, disorders of skeletal muscles, trauma of nervous system, neurological complications of systemic disease Skills: identification of signs and symptoms of common neurological disorders, using laboratory tests in diagnosis of neurological diseases, interpretation of laboratory findings in context of clinical picture, generation a list of possible causes of patients signs and symptoms, elaboration of therapeutic program

## Class syllabus:

cerebrovascular diseases, epilepsy, headache and craniofacial pain, neurodegenerative diseases, vertebrogenic disorders, tumors of nervous system, infections of nervous system, demyelinating diseases, disorders of peripheral nervous system, disorders of neuromuscular transmission, disorders of skeletal muscles, trauma of nervous system, neurological complications of systemic disease

# **Recommended literature:**

Ropper AH et al: Adams&Victor's Principles of Neurology, 9th ed, The McGraw-Hill

Companies, Inc., 2009,

Bradley WQ et al: Neurology in Clinical Practice, 5th ed, Butterworth-Heinemann, 2007

# Languages necessary to complete the course:

### **Notes:**

## Past grade distribution

Total number of evaluated students: 905

A	В	С	D	Е	FX
28,18	17,24	18,9	9,94	14,48	11,27

Lecturers: prof. MUDr. Peter Turčáni, PhD., prof. MUDr. Peter Kukumberg, PhD., prof. MUDr. Pavel Traubner, PhD., prof. MUDr. Branislav Kollár, PhD., MPH, doc. MUDr. Jaroslav Pancák, PhD., prof. MUDr. Peter Valkovič, PhD., MUDr. Zoltán Goldenberg, PhD., MUDr. Marián Kondáš, PhD., MUDr. Iveta Lisá, CSc., doc. MUDr. Stanislav Šutovský, PhD., doc. MUDr. Gabriela Timárová, PhD., doc. MUDr. Pavel Šiarnik, PhD., doc. MUDr. Marek Sýkora, PhD., MUDr. Jozef Szabó, PhD., doc. MUDr. Karin Gmitterová, PhD., MUDr. Zuzana Košutzká, PhD., MUDr. Jana Martinková, PhD., MUDr. Darina Slezáková, PhD., doc. MUDr. Michal Minár, PhD., MUDr. Darina Petrleničová, PhD.

**Last change:** 07.12.2016

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.ÚSLLE/L-S-VLa-051/16

Nursing 1

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: per level/semester: 18s Form of the course: on-site learning

Number of credits: 1

**Recommended semester:** 1.

**Educational level: I.II.** 

**Prerequisites:** 

### **Course requirements:**

100% attendance at all practical lab lesson

## **Learning outcomes:**

Knowledge:

After successful completion of the course student will be able to describe:

- current conditions of providing of nursing care
- organization of patient's treatment in hospital care
- principles of patient's treatment in outpatient care
- principles of communication with patients at specific professional
- principles of safe application of nursing procedures

Skills:

After successful completion of the course student will be able to demonstrate:

- practical skills in treatment of immobile patient
- planning of nursing care in a patient with disorders of self-sufficiency
- practical skills in administering enema and urinary catheterization
- practical skills in monitoring and recording vital signs
- practical skills in collecting biological material for examination
- practical skills in administration of different forms of medication to a patient

### Class syllabus:

Legislation and regulations of nursing profession. Treatment of patients in outpatient and inpatient care. Treatment of immobile patients. Practical training in prescribed diagnostic and therapeutic procedures. Measurement, assessing and recording of vital signs. Enema administration, Urinary catheterization. Collection of blood samples for various types of examinations. Collection of other types of human biological material for examination (urine, stool, sputum, swabs). Administration of non-parenteral and parenteral forms of medication to a patient.

### **Recommended literature:**

Nugent, P. M., Vitale, B.A. 2014: Fundamentals of nursing: content review plus practice questions. F. A. Davis Company, 2014, 913 pp. ISBN: 978-0-8036-3706-1

Perry, A. G., Potter, P. A., Ostendorf, W. 2016: Nursing Interventions & Clinical Skils. Sixth edition. Elsevier Health Sciences, 2016, 888 pp. ISBN 978-0-323-18794-7

Languages necessary to complete the course:						
Notes:						
Past grade distribution Total number of evaluated students: 947						
A	В	С	D	Е	FX	
33,26	24,71	17,42	13,83	10,56	0,21	

**Lecturers:** doc. PhDr. Anna Mazalánová, PhD., PhDr. Iveta Grežďová, PhD., PhDr. Miriam Polhorská, PhD.

**Last change:** 22.12.2016

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚSLLE/L-S-VLa-100/17 | Nursing 1 - practice

**Educational activities:** 

Type of activities: practice

**Number of hours:** 

per week: per level/semester: 40s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

**Educational level: I.II.** 

**Prerequisites:** 

### **Course requirements:**

100 % attendance at clinical practice

## **Learning outcomes:**

Knowledge:

- knowledge about organization of health care in a particular health care facility (internal department /clinic)
- knowledge of nursing care conditions at clinic / department
- knowledge of treatment of patients in outpatient care
- knowledge about principles of management of patient's health record
- knowledge of implementation of selected professional procedures with patients Skills:
- basic habits of safe behavior in health care facility
- skills in securing basic human needs of hospitalized patients
- skills in measurement of physiological functions of patient
- skills in collecting biological material for examination
- skills in administration of different forms of medications

## Class syllabus:

Individual clinical practice aimed at treating the patients in wards of hospitals and clinical workplaces. Organization of treatment of patients in hospital care. Nursing care documentation. Treatment of patients with limited mobility and with impaired self-sufficiency. Practical performing of prescribed diagnostic and therapeutic procedures – enema administration, urinary catheterization, measurement of vital signs, collecting of biological materials for various types of examinations, capillary and venous blood collection, X-ray examination methods and techniques.

#### Recommended literature:

Nugent, P. M., Vitale, B.A. 2014: Fundamentals of nursing: content review plus practice questions. F. A. Davis Company, 2014, 913 pp. ISBN: 978-0-8036-3706-1

Perry, A. G., Potter, P. A., Ostendorf, W. 2016: Nursing Interventions & Clinical Skils. Sixth edition. Elsevier Health Sciences, 2016, 888 pp. ISBN 978-0-323-18794-7

Languages necessary to complete the course:

Notes:
Past grade distribution
Total number of evaluated students: 398
ABS0
100,0
Lecturers: PhDr. Iveta Grežďová, PhD., PhDr. Miriam Polhorská, PhD.
<b>Last change:</b> 14.11.2018
Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.ÚSLLE/L-S-VLa-052/16

Nursing 2

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: per level/semester: 18s Form of the course: on-site learning

Number of credits: 1

**Recommended semester: 2.** 

**Educational level: I.II.** 

Prerequisites: LF. ÚSLLE/L-S-VLa-051/16 - Nursing 1

# **Course requirements:**

100% attendance at all practical lab lessons

# **Learning outcomes:**

Knowledge:

After successful completion of the course student will be able to describe:

- aseptic technique principles of the professional nursing practice
- decontamination procedure principles of the equipment and environment
- principles of safe injection techniques
- methods of wound care methods and selected surgical procedures
- principles of physician nurse collaboration during selected surgical procedures Skills:

After successful completion of the course student will be able to demonstrate:

- aseptic technique skills
- skills of different types of injection administration
- skills for administration of infusion and transfusion therapy
- practical arrangements of wound dressing and treatment
- basic skills of assistance in minor surgical procedures

### Class syllabus:

Administration of different types of injection. Practical application of infusion and transfusion therapy, the technique of peripheral venous cannulation. Aseptic techniques in nursing practice. Disinfection and sterilization in nursing practice. Physician - nurse collaboration in minor surgical procedures. Nursing assistance in chronic wound care management. Bandaging principles and techniques.

### **Recommended literature:**

Nugent, P. M., Vitale, B.A. 2014: Fundamentals of nursing: content review plus practice questions. F. A. Davis Company, 2014, 913 pp. ISBN: 978-0-8036-3706-1

Perry, A. G., Potter, P. A., Ostendorf, W. 2016: Nursing Interventions & Clinical Skils. Sixth edition. Elsevier Health Sciences, 2016, 888 pp. ISBN 978-0-323-18794-7

### Languages necessary to complete the course:

Notes:						
Past grade distribution Total number of evaluated students: 912						
A	В	С	D	Е	FX	
35,31	22,48	16,01	13,93	12,06	0,22	

**Lecturers:** doc. PhDr. Anna Mazalánová, PhD., PhDr. Iveta Grežďová, PhD., PhDr. Miriam Polhorská, PhD.

**Last change:** 22.12.2016

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚSLLE/L-S-VLa-101/18 | Nursing 2 - practice

**Educational activities:** 

Type of activities: practice

**Number of hours:** 

per week: per level/semester: 40s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 6.

**Educational level: I.II.** 

**Prerequisites:** 

### **Course requirements:**

100% attendance at clinical practice

# **Learning outcomes:**

Knowledge:

- knowledge about organization of nursing care at given workplace (surgical department/clinic)
- knowledge about application of selected nursing and medical procedures
- principles of patient's health record management (in surgical department/clinic)
- knowledge of aseptic technique principles in the professional clinical practice
- knowledge of treatment of patients in the surgical outpatient department Skills:
- basic habits of safe behavior at given workplace (surgical department/clinic)
- skills of injection administration
- skills in practical arrangements of the application infusion and transfusion therapy
- basic skills of assistance in minor surgical procedures
- skills of bandaging techniques

## Class syllabus:

Individual clinical practice aimed at treating patients in wards of hospitals and clinical workplaces. Participation at the medical rounds - visits. Specific treatment of patient depending on patient 's age and disease. Examination of surgical patients, recording, pre - and postoperative caring. Assistance at selected examination methods (e.g. proctoscopy, gastroscopy, puncture methods). Routes of medication administration. Different types of administration injection therapy. Assistance at infusion and transfusion therapy, the technique of peripheral venous cannulation. Aseptic techniques in nursing practice. Disinfection and sterilization in nursing practice. Physician - nurse collaboration in minor surgical procedures. Nursing assistance in chronic wound care management. Bandaging techniques.

### **Recommended literature:**

Nugent, P. M., Vitale, B.A. 2014: Fundamentals of nursing: content review plus practice questions. F. A. Davis Company, 2014, 913 pp. ISBN: 978-0-8036-3706-1

Perry, A. G., Potter, P. A., Ostendorf, W. 2016: Nursing Interventions & Clinical Skils. Sixth edition. Elsevier Health Sciences, 2016, 888 pp. ISBN 978-0-323-18794-7
Languages necessary to complete the course:
Notes:
Past grade distribution Total number of evaluated students: 237
ABS0
100,0
Lecturers: PhDr. Iveta Grežďová, PhD., PhDr. Miriam Polhorská, PhD.
Last change: 14.11.2018
Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.FyÚ/L-S-VLa-166-4/19 Nutrition and Dietetics

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s
Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 7.

**Educational level: I.II.** 

# **Prerequisites:**

### **Course requirements:**

100 % presence in lectures and seminars

Submitting of the assigned seminar thesis

Examination: written tests with minimum result of 60 %

Test evaluation: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % or less

Final evaluation will be calculated as the average of all results

## **Learning outcomes:**

## Knowledge:

To know the facts about food components and their associations (nutrients, water, biologically active substances, food additives, contaminants), their effects on the body functions and physiological processes. To gain knowledge about functions of the digestive system, metabolism of nutrients and energy metabolism. Knowledge about dietary factors in prevention of health disorders. Knowledge about the principles of clinical nutrition, dietary system, risks and benefits of alternative nutrition. To know theoretical principles of methods for examination and evaluation of diet and nutritional status of an individual and population groups.

## Skills:

To be able to elaborate dietary recall (anamnesis), to evaluate nutritional value of a diet, and to assess and evaluate basic indicators of nutritional status (clinical, anthropometric, biochemical). To have basic skills in designing diets for healthy individuals, as well as for individuals with special nutritional needs. To be able to provide basic nutritional counselling.

## Class syllabus:

Nutrition as a component of healthy lifestyle. Nutrients, their sources and functions. Other nutritionally relevant food components and their effects on the human body. Water. Current situation in nutrition — dietary guidelines, recommended dietary allowances, food pyramid. Food tables. Digestion in the gastrointestinal system. Metabolism. Food intake regulation. Nutrition in different life periods. Nutrition in disease prevention and treatment - obesity, cardiovascular diseases, cancer, ostheoporosis, diabetes mellitus, disorders of the gastrointestinal system. Nutrition and oral health. Food allergies. Mental anorexia and bulimia. Dietetics - dietotherapy, dietary system, characteristics of diets. Enteral and parenteral nutrition. Alternative nutrition and fad diets.

# **Recommended literature:**

Ostatníková, D. et al.: Basics of Medical Physiology. Bratislava: Comenius University, 2011. 298p. ISBN 978-80-223-2993-4.

Basics in Clinical Nutrition 4th Edition, Praha: Galén, 2011, 723 pp. ISBN 978-80-726-2821-6

# Languages necessary to complete the course:

# **Notes:**

# Past grade distribution

Total number of evaluated students: 21

A	В	С	D	Е	FX
57,14	42,86	0,0	0,0	0,0	0,0

**Lecturers:** doc. MUDr. Katarína Babinská, PhD., MUDr. Mgr. Rudolf Drábek, MUDr. Rastislav Važan, PhD.

**Last change:** 10.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.FyÚ/L-S-VLa-166-5/19 Nutrition and Dietetics

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 9.

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

100 % presence in lectures and seminars

Submitting of the assigned seminar thesis

Examination: written tests with minimum result of 60 %

Test evaluation: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % or less

Final evaluation will be calculated as the average of all results

# **Learning outcomes:**

# Knowledge:

To know the facts about food components and their associations (nutrients, water, biologically active substances, food additives, contaminants), their effects on the body functions and physiological processes. To gain knowledge about functions of the digestive system, metabolism of nutrients and energy metabolism. Knowledge about dietary factors in prevention of health disorders. Knowledge about the principles of clinical nutrition, dietary system, risks and benefits of alternative nutrition. To know theoretical principles of methods for examination and evaluation of diet and nutritional status of an individual and population groups.

# Skills:

To be able to elaborate dietary recall (anamnesis), to evaluate nutritional value of a diet, and to assess and evaluate basic indicators of nutritional status (clinical, anthropometric, biochemical). To have basic skills in designing diets for healthy individuals, as well as for individuals with special nutritional needs. To be able to provide basic nutritional counselling.

# Class syllabus:

Nutrition as a component of healthy lifestyle. Nutrients, their sources and functions. Other nutritionally relevant food components and their effects on the human body. Water. Current situation in nutrition — dietary guidelines, recommended dietary allowances, food pyramid. Food tables. Digestion in the gastrointestinal system. Metabolism. Food intake regulation. Nutrition in different life periods. Nutrition in disease prevention and treatment - obesity, cardiovascular diseases, cancer, ostheoporosis, diabetes mellitus, disorders of the gastrointestinal system. Nutrition and oral health. Food allergies. Mental anorexia and bulimia. Dietetics - dietotherapy, dietary system, characteristics of diets. Enteral and parenteral nutrition. Alternative nutrition and fad diets.

# **Recommended literature:**

Ostatníková, D. et al.: Basics of Medical Physiology. Bratislava: Comenius University, 2011. 298p. ISBN 978-80-223-2993-4.

Basics in Clinical Nutrition 4th Edition, Praha: Galén, 2011, 723 pp. ISBN 978-80-726-2821-6

# Languages necessary to complete the course:

**Notes:** 

# Past grade distribution

Total number of evaluated students: 10

A	В	С	D	Е	FX
40,0	60,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. MUDr. Katarína Babinská, PhD., MUDr. Mgr. Rudolf Drábek, MUDr. Rastislav Važan, PhD.

**Last change:** 10.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.OnK1/L-S-VLa-050/19 Oncological Propedeutics

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 11s / 25s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

Prerequisites: LF. ÚPA/L-S-VLa-055/18 - Pathological Anatomy 2, LF. ÚPF/L-S-VLa-057/18 -

Pathological Physiology 2

# **Course requirements:**

Practicals/interships attendance: 100 %

passing one test (minimum 60%)

test evaluation: : A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %,

Fx: 59 % and less

## **Learning outcomes:**

Knowledge: theoretical knowledge of molecular and biological aspects of tumor genesis, carcinogenesis, tumor pathology and symptomatology of oncological diseases.

Knowledge of tumor epidemiology, diagnostic procedures, evaluation of therapeutic response, basic knowledge of treatments used in oncology: surgery, systemic treatment, radiotherapy. Basic knowledge of management of most frequent oncologic diseases and related social work.

Skills:

Determining anamnesis and clinical examination of oncological patients.

## Class syllabus:

General oncology: biological aspects of oncologic diseases, carcinogenesis, tumor epidemiology, tumor pathology, classification, symptomatology, tumor diagnostics, modalities of tumor treatment: surgery, radiotherapy, systemic treatment. Evaluation of treatment response. Social and psychologic aspects of oncologic diseases.

Specialised oncology: epidemiology, etiology, pathology, symptomatology, diagnostics, therapy, prognosis of selected oncological diseases

## **Recommended literature:**

Perez, Brady: Principles and Practice of Radiation Oncology, 6th Edition,

Barret, Dobbs et al.: Practical Radiotherapy Planning, 4th ed.

Polock R.E. et al: Manual of Clinical Oncology.8th ed., New York: Willey Liss, 2004, 936 p

## Languages necessary to complete the course:

**Notes:** 

Past grade distribution							
Total number of evaluated students: 117							
Α	В	С	D	Е	FX		
18,8	52,14	23,08	5,13	0,85	0,0		

**Lecturers:** prof. MUDr. Dalibor Ondruš, DrSc., prof. MUDr. Stanislav Špánik, PhD., doc. MUDr. Lýdia Heľpianská, CSc., MUDr. Ivana Krajčovičová, PhD.

**Last change:** 10.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.OnK1/L-VLa-057/11 Oncological Propedeutics

**Educational activities:** 

**Type of activities:** lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 15s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

# **Prerequisites:**

# **Course requirements:**

Practicals/interships attendance: 100 % passing one test (minimum 60%)

test evaluation: : A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %,

Fx: 59 % and less

## **Learning outcomes:**

Knowledge: theoretical knowledge of molecular and biological aspects of tumor genesis, carcinogenesis, tumor pathology and symptomatology of oncological diseases.

Knowledge of tumor epidemiology, diagnostic procedures, evaluation of therapeutic response, basic knowledge of treatments used in oncology: surgery, systemic treatment, radiotherapy. Basic knowledge of management of most frequent oncologic diseases and related social work. Skills:

Determining anamnesis and clinical examination of oncological patients.

# Class syllabus:

General oncology: biological aspects of oncologic diseases, carcinogenesis, tumor epidemiology, tumor pathology, classification, symptomatology, tumor diagnostics, modalities of tumor treatment: surgery, radiotherapy, systemic treatment. Evaluation of treatment response. Social and psychologic aspects of oncologic diseases.

Specialised oncology: epidemiology, etiology, pathology, symptomatology, diagnostics, therapy, prognosis of selected oncological diseases

## **Recommended literature:**

Perez, Brady: Principles and Practice of Radiation Oncology, 6th Edition,

Barret, Dobbs et al.: Practical Radiotherapy Planning, 4th ed.

Polock R.E. et al: Manual of Clinical Oncology.8th ed., New York: Willey Liss, 2004, 936 p.

# Languages necessary to complete the course:

**Notes:** 

Past grade distribution							
Total number of evaluated students: 796							
Α	В	С	D	Е	FX		
41,58	25,38	17,34	6,16	8,04	1,51		

**Lecturers:** prof. MUDr. Dalibor Ondruš, DrSc., prof. MUDr. Stanislav Špánik, PhD., prof. MUDr. Juraj Švec, DrSc., doc. MUDr. Lýdia Heľpianská, CSc., MUDr. Ivana Krajčovičová, PhD., MUDr. Martin Chorváth, PhD., MUDr. Bela Mriňáková

Last change: 07.12.2016

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: Ophthalmology

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 25s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 9., 10..

**Educational level: I.II.** 

# **Prerequisites:**

## **Course requirements:**

Knowledge: 100 % of participation in practicals

Final test: 20 questions with minimum 60 % of correct answers

Test score: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %, Fx: 59 % and less Exam: Theory: 3 questions: basic principles of optics, examination methods in Ophthalmology, general Ophthalmology, special Ophthalmology, Pedoophthalmology, acute situations and first aid in Ophthalmology

Total score is determined from the average of received ratings.

# **Learning outcomes:**

Knowledge: - Acquiring basic, theoretical and practical knowledge in the field of Ophthalmology pediatric and adult patients.

- Basic problems of clinical morphology and physiology of vision. Diagnostic procedures in ophthalmology: an investigation in daylight and side light. Biomicroscopy of the eye. Ophthalmoscopy direct and indirect. Investigation of visual acuity, field of vision and color perception. Additional tests in Ophthalmology: diagnostic ultrasound. fluorescein angiography of retinal blood vessels. optical coherence tomography, basic radiodiagnostics in Ophthalmology. Pedoophthalmology, Ophtalmogenetics, Ophthalmogerontology, Ophthalmogeriatrics. Relationship between Ophthalmology and other medical specialties. General disorders and their manifestations in the eye. Screening in Ophthalmology. Diseases of the eye subsidiary bodies. Diseases of the anterior segment of the eye. Modern cataract surgery. Refractive disorders of the eye. Basics of refractive surgery. Vascular and degenerative diseases of the retina and vitreous. Basics of vitreous-retinal surgery. Glaucoma. Traumatology of the eye. Neurooophthalmology, Ophthalmooncology. Skills:
- SKIIIS.
- The basis of investigation techniques, history, principles of treatment of diseases of the anterior and posterior segment of the eye, the algorithm in the differential diagnosis of eye diseases, especially inflammatory etiology and injuries.
- Treatment of patients with diseases of the eye and orbit. Problems included patients with impairments of the eye to the environment assessment activities. First aid and urgent conditions in Ophthalmology

# Class syllabus:

Basic examination in Ophthalmology (visual acuity test, direct and indirect ophthalmoscopy, slit lamp examination, perimetry)

## **Recommended literature:**

Ahmed, E.: Textbook of Ophthalmology, Oxford University Press, London, 1993, 505 p.

Kanski, J.J.: Clinical Ophthalmology. A Systemic Approach. Butterwoth Heinemann, 2003, 720 p.

Oláh, Z.: Ophthalmology, Lectures for the 5th Class. LFUK, Bratislava, 100 p.

Evans, N.: Ophthalmology, Oxford University Press, 1995, 320 p.

Jogi, R.: Basic Ophthalmology, 4 th edition, Jaype Brothers Medical Publishers LTD. New Delhi, 2009, 502 p.

# Languages necessary to complete the course:

# **Notes:**

# Past grade distribution

Total number of evaluated students: 850

A	В	С	D	Е	FX
33,06	28,24	20,71	7,18	10,47	0,35

Lecturers: prof. MUDr. Anton Gerinec, CSc., prof. MUDr. Zoltán Oláh, DrSc., prof. MUDr. Peter Strmeň, CSc., prof. MUDr. PhDr. Alena Furdová, PhD., MPH, doc. MUDr. Vladimír Krásnik, PhD., MUDr. Sylvia Lea Ferková, PhD., MUDr. Jaroslav Hasa, CSc., MUDr. Jana Štefaničková, PhD., MUDr. Monika Gromová, PhD., Kristína Horkovičová, PhD., MPH, MUDr. Ivajlo Popov, PhD., MUDr. Jela Valášková, PhD., MUDr. Veronika Popová, MUDr. Dana Tomčíková, PhD.

**Last change:** 05.12.2016

## Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ORLK1/L-VLa-077/11 Otorhinolaryngology

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

**per week: per level/semester:** 14s / 35s **Form of the course:** on-site learning

Number of credits: 2

Recommended semester: 9., 10..

**Educational level: I.II.** 

# **Prerequisites:**

## **Course requirements:**

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

# Learning outcomes:

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 therapeuticaly manage the patient.

# Class syllabus:

Basics of anatomy and physiology of ENT organs. Standard examination methods including audiological diagnostics, neonatal screening of hearing. Symptoms of ENT diseases, disaseas 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, managemet of inhaled and ingested foregin bodies. Management of the patient with head and neck cancer. Head and neck trauma.

## **Recommended literature:**

Tedla et al.: Basic Otorhinolaryngology (Vydavateľstvo UK, 2016, in press)

Anniko M et al.: Otorhinolaryngology, Head and Neck Surgery, Springer-Verlag Berlin Heidelberg 2010, 737 pp.

Becker, W., Naumann, H.H., Pfaltz, C.R.: Ear, Nose, and Throat Diseases. Sec. Ed. Thieme Verlag, Stuttgart, 1994, 581 s.

# Languages necessary to complete the course:

## **Notes:**

# Past grade distribution

Total number of evaluated students: 890

A	В	С	D	Е	FX
23,93	28,76	21,91	13,82	10,9	0,67

Lecturers: prof. MUDr. Milan Profant, CSc., prof. MUDr. Juraj Klačanský, CSc., doc. MUDr. Zuzana Kabátová, CSc., doc. MUDr. Milan Krošlák, CSc., MUDr. Daniela Nechojdomová, PhD., MUDr. Irina Šebová, CSc., MUDr. Lívia Majerníková, MUDr. Gabriela Pavlovčinová, PhD., doc. MUDr. Patrik Štefanička, PhD., doc. MUDr. Miroslav Tedla, PhD., MPH, MUDr. RNDr. Lukáš Varga, PhD., MUDr. Ivana Vyrvová, MUDr. Dimitrios Paouris, MUDr. Lucia Demešová

Last change: 24.11.2016

Approved by:

# STATE EXAM DESCRIPTION

University: Comenius University in Bratislava				
Faculty: Faculty of Medicine				
Course ID: LF.D_K/L-VLa-ŠS-4/15	Course title: Paediatrics			
Number of credits: 2				
Recommended semester: 11.,	12			
Educational level: I.II.				
State exam syllabus:				
Last change:				
Approved by:				

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

Course title: LF.D K/L-VLa-059/11 Paediatrics 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 25s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

# **Prerequisites:**

## **Course requirements:**

- 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 avarage of obtained evaluations

# **Learning outcomes:**

Knowledge: Age groups during infancy and childhood. Anatomical and physiological peculiarities of infancy and childhood (growth, psychomotoric development, nutrition).

Prevention in pediatrics. Methods of examination and symptomatology in individual systems (respiratory, cardiovascular, digestive, uropoetic, blood, motoric and nervous)

Skills: precise history and examination of an infant and an older child (including taking of the weight, height, circumference of the head and chest, temperature, blood pressure, the number of pulses and breaths) and interpretation of fundamental laboratory parameters (blood count, examination of the urine, basic biochemical examination)

## Class syllabus:

Peculiarities of infancy and childhood (growth, psychomotoric development, nutrition), Prevention in pediatrics, Detailed history and clinical examination of an infant and an older child (including measurement of weight, height, circumference of the head and chest, body temperature, blood pressure, pulses and breaths) and interpretation of basic laboratory parameters (blood count, examination of the urine, basic biochemical examination)

Pediatric history, Physical examination, Psychomotoric development. Age groups during infancy and childhood. Nutrition of infants - breast feeding, artificial feeding. Nutrition of older children. Anatomical and physiological peculiarities in infancy and childhood. Methods of examination of individual organs and systems, organ related symptomatology (respiratory, cardiovascular, digestive, uropoetic, blood, motoric and nervous).

#### Recommended literature:

Kovács L. et al: Pediatric Propedeutics - Workbook for Medical Students, BUX, Bratislava, 2014, 150 s.

Lissauer T, Clayden G. Illustrated Pediatrics, 3rd Edition, Mosby, 2007, 516 p.

Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 819							
A B C D E FX							
10,38	26,74	33,7	18,32	10,38	0,49		

Lecturers: doc. MUDr. Ľudmila Košťálová, CSc., doc. MUDr. Vladimír Bzdúch, CSc., doc. MUDr. Oľga Červeňová, CSc., doc. MUDr. Peter Čižnár, CSc., doc. MUDr. Tomáš Dallos, PhD., MUDr. Jarmila Hornová, PhD., MUDr. Katarína Juríčková, MUDr. Katarína Krivošíková, MUDr. Alžbeta Čagalová, MUDr. Denisa Lobotková, PhD., MUDr. Zuzana Pribilincová, CSc., prof. MUDr. Ľudmila Podracká, CSc., MUDr. Zuzana Blusková, PhD., MUDr. Katarína Prochotská, PhD., doc. MUDr. Juraj Staník, PhD., MUDr. Ľubica Tichá, PhD., MUDr. Dagmar Urbanová, PhD.

**Last change:** 24.11.2016

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.D K/L-VLa-060/11 Paediatrics 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 29s / 25s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 9.

**Educational level: I.II.** 

# **Prerequisites:**

## **Course requirements:**

100% participation in the practical exercises

- to pass 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 (examination of a patient)

The overall evaluation is determined from the avarage of obtained evaluations.

# **Learning outcomes:**

# Knowledge:

Acute of nutritional disorders in infants. Diseases of the respiratory system (acute respiratory diseases, pneumonia, recurrent respiratory diseases, bronchial asthma, cystic fibrosis, bronchiectasis, interstitial pulmonary fibrosis). Diseases of the blood system (anemia, coagulation disorders, leukemia, lymphomas). Neonatology – physiologic newborn, low birth weight newborn. Life-threatening conditions. Cramps. Infections. Newborn of a mother taking drugs. Endocrinology – growth disorders, disorders of pubertal development, congenital adrenal hyperplasia, diseases of the thyroid and the parathyroid gland, Diabetes mellitus, Obesity. Anorexia nervosa. Hypertension. Disorders of connective tissue – JCA, SLE, dermatomyositis, vasculitis. Nephrology – glomerulonephritis, nephrotic syndrome, Urinary tract infection, VUR, Tubulopathies, Acute and chronic renal insufficiency. Cardiology – congenital heart defects, heart failure, inflammatory heart disease, rheumatic fever, arrhythmia.

Skills: Pediatric history taking and related communication skills, Clinical and neurological examination of the newborn, Clinical examination of infants and evaluation of psychomotor development, Assessment of height and weight and evaluation according to the nomogram, Breastfeeding/artificial nutrition – evaluation of the weight before and after feeding, Assessment of bone age and pubertal development (according to Tanner), Measurement of body temperature (rectal and axillary), Assessment of the vital functions (pulse and breaths rate), Measurement of blood pressure in different age groups. Microscopic examination of the urine, Calculation calories in meals, Evaluation of blood counts and differential blood counts, Determination of blood groups, Interpretation of lungs X-RAY finding, Interpretation of intravenous urography and cystography, Examination of tonsills and methods for taking samples for microbiological examination, Methods for drug delivery, Compiling genetic family tree, evaluation results of the examination of

chromosomes, Calculation of amount of fluids and electrolytes to be administered to dehydrated infants with acute gastroenteritis or diabetic ketoacidosis, respectively

## Class syllabus:

Acute nutritional disorders of infants. Chronic nutritional disorders – malabsorption. Disorders of GIT in older children (gastric and duodenal peptic ulcer disease, inflammatory bowel disease, disorders of the liver, gall bladder and pancreas). Diseases of the respiratory system (acute respiratory diseases, pneumonia, recurrent respiratory diseases, bronchial asthma, cystic fibrosis, bronchiectasis, interstitial pulmonary fibrosis). Diseases of the blood system (anemia, coagulation disorders, leukemia, lymphomas). Neonatology – physiologic newborn, low birth weight newborn. Respiratory distress syndrome and other respiratory disorders. Differential diagnosis of cyanosis. M. haemolyticus and differential diagnosis of jaundice in newborns. Life-threatening conditions. Cramps. Infections. Newborn of the mother taking drugs. Endocrinology – growth disorders. disorders of pubertal development, congenital adrenal hyperplasia, diseases of the thyroid and the parathyroid gland, diabetes mellitus, Obesity. Anorexia nervosa. Hypertension. Disorders of connective tissue - JCA, SLE, dermatomyositis, vasculitis. Nephrology - glomerulonephritis, nephrotic syndrome, urinary tract infection, VUR, tubulopathies, acute and chronic renal insufficiency. Cardiology - congenital heart defects, heart failure, inflammatory heart disease, rheumatic fever, arrhythmia. Poisoning in children. Side effects of drugs. Genetic diseases monogenic diseases, chromosomal aberrations. Birth defects. Congenital metabolic disorders of proteins, fat and carbohydrates.

## **Recommended literature:**

Kovács L. et al: Pediatric Propedeutics- Workbook for Medical Students, BUX, Bratislava, 2014, 150 s.

Lissauer T, Clayden G. Illustrated Pediatrics, 3rd Edition, Mosby, 2007, 516 p.

# Languages necessary to complete the course:

# **Notes:**

## Past grade distribution

Total number of evaluated students: 889

A	В	С	D	Е	FX
63,78	19,12	11,92	2,02	3,15	0,0

Lecturers: prof. MUDr. Ľudmila Podracká, CSc., prof. MUDr. Ingrid Brucknerová, PhD., doc. MUDr. Peter Čižnár, CSc., MUDr. Ľubomír Barák, CSc., doc. MUDr. Vladimír Bzdúch, CSc., doc. MUDr. Oľga Červeňová, CSc., doc. MUDr. Tomáš Dallos, PhD., MUDr. Jarmila Hornová, PhD., MUDr. Katarína Juríčková, doc. MUDr. Ľudmila Košťálová, CSc., MUDr. Katarína Krivošíková, MUDr. Alžbeta Čagalová, MUDr. Denisa Lobotková, PhD., MUDr. Zuzana Pribilincová, CSc., MUDr. Katarína Prochotská, PhD., doc. MUDr. Juraj Staník, PhD., MUDr. Ľubica Tichá, PhD., MUDr. Zuzana Blusková, PhD., MUDr. Dagmar Urbanová, PhD.

**Last change:** 24.11.2016

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

LF.D K/L-VLa-061/11

Course title:

Paediatrics 3

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 29s / 25s Form of the course: on-site learning

Number of credits: 3

Recommended semester: 10.

**Educational level: I.II.** 

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

#### **Recommended literature:**

Kovács L. et al: Pediatric Propedeutics- Workbook for Medical Students, BUX, Bratislava, 2014, 150 s.

Lissauer T, Clayden G. Illustrated Pediatrics, 3rd Edition, Mosby, 2007, 516 p.

# Languages necessary to complete the course:

#### **Notes:**

## Past grade distribution

Total number of evaluated students: 855

A	В	С	D	Е	FX
34,62	18,83	20,12	11,46	12,63	2,34

Lecturers: prof. MUDr. Ľudmila Podracká, CSc., prof. MUDr. Ingrid Brucknerová, PhD., doc. MUDr. Vladimír Bzdúch, CSc., doc. MUDr. Peter Čižnár, CSc., MUDr. Ľubomír Barák, CSc., doc. MUDr. Oľga Červeňová, CSc., doc. MUDr. Tomáš Dallos, PhD., MUDr. Jarmila Hornová, PhD., MUDr. Katarína Juríčková, doc. MUDr. Ľudmila Košťálová, CSc., MUDr. Katarína Krivošíková, MUDr. Alžbeta Čagalová, MUDr. Denisa Lobotková, PhD., MUDr. Zuzana Pribilincová, CSc., MUDr. Katarína Prochotská, PhD., doc. MUDr. Juraj Staník, PhD., MUDr. Ľubica Tichá, PhD., MUDr. Zuzana Blusková, PhD., MUDr. Dagmar Urbanová, PhD.

**Last change:** 12.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

**Course ID:** 

Course title: LF.D K/L-VLa-155/19 Paediatrics 4

**Educational activities:** 

Type of activities: seminar / practicals

**Number of hours:** 

per week: per level/semester: 64s / 280s

Form of the course: on-site learning

Number of credits: 14

Recommended semester: 11., 12..

**Educational level: I.II.** 

Prerequisites: LF.D K/L-VLa-061/11 - Paediatrics 3

# **Course requirements:**

100% participation in the internship

- pass 2 written tests (at least 60%),
- practical examination patient examination and submission of results in written form (diagnostics, differential diagnosis, treatment plan)

## **Learning outcomes:**

To master all compulsory practical skills.

## Class syllabus:

Work at the in-patient department as a younger secondary physician. Assistance at different diagnostic and therapeutic output. Evaluation of X-ray and ECG results. Participation at ward rounds and seminars. Work at the out-patient department. 6 night-duties. To prepare a sample case report - detailed differential diagnosis and treatment, oral presentation and discussion with the teacher.

Circulation - clinical paediatrics, paediatric infectious diseases, paediatric primary care, paediatric dermatology and basic perinatal care.

## **Recommended literature:**

Behrman, R. Kliegman: Nelson Essentials of Pediatrics, W.B. Saunders Comp., Philadelphia, 1990, 743 p.

Barness, L.A.: Manual of Pediatric Physical Diagnosis, Mosby Year book, St. Louis, Boston, Baltimore, Chicago, London, Philadelphia, 1991, 306 p.

Bernstein D., Shelow S.P.: Pediatrics, Wiliams and Wilkins, Baltimore, Philadelphia, London, 1996, 660p.

# Languages necessary to complete the course:

# **Notes:**

## Past grade distribution

Total number of evaluated students: 220

A	В	С	D	Е	FX
65,45	26,36	5,0	3,18	0,0	0,0

**Lecturers:** doc. MUDr. Peter Čižnár, CSc., doc. MUDr. Ľudmila Košťálová, CSc., prof. MUDr. Ľudmila Podracká, CSc., prof. MUDr. Ingrid Brucknerová, PhD., MUDr. Zuzana Chudá, doc. MUDr. Peter Olejník, PhD.

**Last change:** 10.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.D\_K/L-VLa-126/16 Paediatrics – practice

**Educational activities:** 

Type of activities: practice

**Number of hours:** 

per week: per level/semester: 80s Form of the course: on-site learning

**Number of credits: 3** 

Recommended semester: 10.

**Educational level: I.II.** 

**Prerequisites:** 

# **Course requirements:**

100 % presence during the internship

# **Learning outcomes:**

Knowledge: Acute nutritional disorders in infants. Respiratory diseases (acute respiratory diseases, pneumonias, recurrent respiratory diseases, bronchial asthma, cystic fibrosis, bronchiectasis, interstitial lung fibrosis). Blood system diseases (anemias, bleeding disorders, leukemia, lymphomas). Neonatology - physiological newborn, newborn with low birth weight. Lifethreatening conditions. Convulsions. Infections. Infants of mothers using drugs. Endocrinology - growth disorders, disorders of pubertal development, congenital adrenal hyperplasia, diseases of the thyroid and parathyroid glands, diabetes mellitus, obesity. Anorexia nervosa. Hypertension. Connective tissue disorders - JCA, SLE, dermatomyositis, and vasculitis. Nephrology - glomerulonephritis, nephrotic syndrome, urinary tract infection, VUR, tubulopathy, acute and chronic renal insufficiency. Cardiology - congenital heart diseases, heart failure, inflammatory heart diseases, rheumatic fever, arrhythmias.

Skills: Work of pediatrician in primary contact. Diagnostics and treatment of common pediatric conditions. History taking, physical examination, laboratory diagnostic methods, basic noninvasive and invasive diagnostic methods, special diagnostic methods in pediatrics and their usage in getting diagnosis with a therapeutic plan. Acquiring common skills.

# Class syllabus:

Diagnostics and treatment of common pediatric conditions. History taking, physical examination, laboratory diagnostic methods, basic noninvasive and invasive diagnostic methods, special diagnostic methods in pediatrics and their usage in getting diagnosis with a therapeutic plan. Acquiring common skills.

#### **Recommended literature:**

Kovács L. et al: Pediatric Propedeutics- Workbook for Medical Students, BUX, Bratislava, 2014, 150 s.

Lissauer T, Clayden G. Illustrated Pediatrics, 3rd Edition, Mosby, 2007, 516 p.

# Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 391
ABS0
100,0
Lecturers: prof. MUDr. Ľudmila Podracká, CSc.
<b>Last change:</b> 24.11.2016
Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF. ÚPA/L-S-VLa-054/18 Pathological Anatomy 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 48s / 48s Form of the course: on-site learning

Number of credits: 7

**Recommended semester: 5.** 

**Educational level: I.II.** 

Prerequisites: LF.AÚ/L-S-VLa-003/17 - Anatomy 3,LF.ÚHE/L-S-VLa-019/17 - Histology and

Embryology 2

# **Course requirements:**

100% histopathology class attendance.

90% autopsy class attendance.

To pass 2 written control tests with minimum score of 60 points.

Test scoring: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %, Fx: 59

% and less

Total score is determined from the average of ratings received.

# **Learning outcomes:**

# Knowledge:

Etiology and pathogenesis of pathological changes in tissues and organs. Recognition of the connection between clinical manifestations and pathological-anatomic substrate of diseases. Pathomorphologic changes of tissues and organs in correlation with functional changes.

Skills:

Working with light microscope. The use of conventional, special staining methods and histochemical methods in the differential diagnosis of pathological processes.

# Class syllabus:

General pathology: methods in pathology, cell pathology, regressive and progressive changes, necrosis, atrophy, metabolic diseases, disorders of blood and lymph circulation, inflammation – acute, chronic, granulomatous, developmental defects, nutritional diseases, immunopathology, AIDS, transplantation pathology, environmental pathology.

General oncology: nomenclature and taxonomy of tumors, cancerogenesis, tumor growth and its influence on organism, benign and malignant tumors, histological diagnostics, grading and staging, tumor markers, invasion and metastasis, epithelial and mesenchymal tumors, neuroectodermal tumors, mixed tumors, teratomas, germ cell tumors, tumors of placenta, mesothelioma. Hemopoetic tumors, malignant lymphomas. Description of gross pathological changes. Arrangement of diagnoses in autopsy report.

## Recommended literature:

Harsh Mohan: Textbook of Jaypee Brothers Medical Publishers LTD., 2010, 933 p.

Robins and Cotrans: Atlas of Pathology, ELSEVIER 2006, 529 p.

Damjanov Ivan: Atlas of Histopathology, Jaypee Brothers Medical Publishers LTD., 2012, 399 p.

Languages necessary to complete the course:

# **Notes:**

# Past grade distribution

Total number of evaluated students: 357

A	В	С	D	Е	FX
31,37	55,74	11,76	1,12	0,0	0,0

Lecturers: prof. MUDr. Ľudovít Danihel, CSc., prof. MUDr. Pavel Babál, CSc., doc. MUDr. Ján Porubský, CSc., doc. MUDr. Zuzana Čierna, PhD., MUDr. Pavol Janega, PhD., MUDr. Andrea Janegová, PhD., MUDr. Lucia Krivošíková, MUDr. Katarína Letkovská, PhD., MUDr. Kristína Mikuš Kuracinová, PhD., MUDr. Kristína Mosná, MUDr. Hedviga Mrázová, PhD., MUDr. Michal Palkovič, PhD., MPH, MUDr. Mgr. Vladimír Šišovský, PhD., MUDr. Samuel Horák

Last change: 10.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚPA/L-S-VLa-055/18 | Pathological Anatomy 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 48s / 48s Form of the course: on-site learning

Number of credits: 9

Recommended semester: 6.

**Educational level: I.II.** 

**Prerequisites:** LF.ÚPA/L-S-VLa-054/18 - Pathological Anatomy 1

# **Course requirements:**

100% histopathology class attendance.

90% autopsy class attendance.

Histopathology class - To pass 2 written control tests with minimum score of 60 % - Multiple Choice Test.

Autopsy classes - Continuous oral evaluation of knowledge

Complex exam:

- Practical exam in autopsy room oral form
- Description of 1 histopathological slide
- Final written multiple choice test minimum score of 60 %
- Oral exam 3 questions 1 general pathology
- 1 oncology
- 1 systemic pathology

Test scoring: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %, Fx: 59 % and less

Total score is determined from the average of ratings received.

# **Learning outcomes:**

Knowledge:

Morphologic changes of the organs in tumorous and non-tumorous processes. Tumor classification, grading, staging. Etiology, pathogenesis, complications and prognosis of pathological changes of different organs. Pathomorphologic changes of tissue and organs in correlation with functional changes. Diagnosis arrangement of autopsy report based on gross and microscopical examination. Skills:

The use of modern immunohistochemical, molecular-biological and ultrastructural methods in diagnostics of pathological processes.

# Class syllabus:

Special systemic pathology: cardiovascular system – vascular diseases, atherosclerosis, heart diseases, respiratory system – inflammations, allergies, emphysema, tumors, hemopoetic system, pathology of spleen, lymph nodes, nephropathology – vascular disorders, glomerulonephritis, tumors, ulcerous colitis, Crohn's disease, metabolic diseases, bones and joints – inflammations,

degenerative diseases, myopathies, endocrine system – syndromes, tumors, neuroendocrine system, skin – inflammations, tumors, genitals – inflammations, sexually transmitted diseases, precancerous states, tumors, breast, endometrial dysfunctions, pathology of pregnancy, trophoblastic disease, nervous system – traumas, circulation disorders, inflammations, degenerative diseases, tumors, pathology of neonate.

#### **Recommended literature:**

Harsh Mohan: Textbook of Jaypee Brothers Medical Publishers LTD., 2010, 933 p.

Robins and Cotrans: Atlas of Pathology, ELSEVIER 2006, 529 p.

Damjanov Ivan: Atlas of Histopathology, Jaypee Brothers Medical Publishers LTD., 2012, 399 p.

# Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 293

A	В	С	D	Е	FX
28,33	33,11	15,7	7,51	11,95	3,41

Lecturers: prof. MUDr. Ľudovít Danihel, CSc., prof. MUDr. Pavel Babál, CSc., doc. MUDr. Ján Porubský, CSc., doc. MUDr. Zuzana Čierna, PhD., MUDr. Pavol Janega, PhD., MUDr. Andrea Janegová, PhD., MUDr. Lucia Krivošíková, MUDr. Katarína Letkovská, PhD., MUDr. Kristína Mikuš Kuracinová, PhD., MUDr. Kristína Mosná, MUDr. Hedviga Mrázová, PhD., MUDr. Michal Palkovič, PhD., MPH, MUDr. Mgr. Vladimír Šišovský, PhD., MUDr. Samuel Horák

Last change: 10.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚPF/L-S-VLa-056/18 Pathological Physiology 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 36s / 36s Form of the course: on-site learning

**Number of credits:** 5

**Recommended semester:** 5.

**Educational level:** I.II.

**Prerequisites:** LF.FyÚ/L-S-VLa-014/17 - Physiology 2

## **Course requirements:**

# **Learning outcomes:**

# Class syllabus:

Principles of molecular pathogenesis and genetics, pathophysiology of malignant diseases, carcinogenesis, disturbances of body fluids, electrolytes and acid-base balance, anesthesia and pain, stress, shock, pathophysiology of respiratory system, pathophysiology of the cardiovascular system, pathophysiology of the gastrointestinal system.

Pathophysiology of malignancy. Stable and unstable angina pectoris.

Acute myocardial infarction. Heart failure. Arrhythmias. Sudden cardiac death. Stress. Arterial blood pressure deregulation. Inborn valvular defects of the heart. Acquired valvular defects of the heart. Shock. Pulmonary hypertension. Liver disease.

Water disturbances. Electrolyte disturbances. Disturbances in acid-base balance. Anesthesia and pain. Principles of work with experimental animals. Carcinogenesis. Myocardial infarction. Cardiomyopathies. Electrical activity of the heart and its disturbances. Tachyarrhythmias. Bradyarrhythmias. Arterial hypertension I. Arterial hypertension II.

## Recommended literature:

Hulín et al.: Pathophysiology. Bratislava, SAP 1997, 696 s.

Holzerová, J., Bakošová, M., Sapáková, E., Kraj?ovi?ová, ?., Hulín, I.: Pathophysiology.

Supplement 2000. Bratislava, SAP 2000, 80 s.

Hulin's Pathophysiological Letters. SAP, Bratislava, 1999, 123 pp.

Štvrtinová V., Jakubovský J., Hulín I.: Inflammation and Fever. 1995, 113 pp.

# Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 358

A	В	С	D	Е	FX
29,33	61,17	9,22	0,28	0,0	0,0

**Lecturers:** prof. MUDr. Fedor Šimko, CSc., prof. MUDr. Marián Bernadič, CSc., prof. MUDr. Beáta Mladosievičová, CSc., doc. RNDr. Ing. Peter Celec, DrSc., doc. MUDr. Barbara Ukropcová, PhD., MUDr. RNDr. Ľudovít Paulis, PhD., MUDr. Ljuba Bachárová, DrSc., MUDr. Tomáš Baka, PhD.

**Last change:** 10.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF. ÚPF/L-S-VLa-057/18 Pathological Physiology 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 36s / 36s Form of the course: on-site learning

**Number of credits: 8** 

**Recommended semester:** 6.

**Educational level:** I.II.

Prerequisites: LF. ÚPF/L-S-VLa-056/18 - Pathological Physiology 1

## **Course requirements:**

# **Learning outcomes:**

# Class syllabus:

Pathophysiology of the uropoietic tract, gastrointestinal tract, respiratory system, endocrine system, central and peripheral nervous system, autonomous nervous system, pathophysiology of sensory organs, pathophysiology of bones and joints, pathophysiology of the blood and haematopoiesis, vascular disorders.

Pathophysiology of white blood cells. Anemic syndrome. Disorders of suprarenal gland. Endothelial dysfunction. Pathophysiology of nervous system - general principles. Pathophysiology of sensory system. Thromboembolism. Cerebral ischemia and hemorrhage. Alzheimer's disease, prion diseases. Syndrome of insulin resistance. Renal failure I. Renal failure II.

Disorders of ventilation and perfusion. Bronchial asthma. Proteinuria and the nephrotic syndrome. Ileus. Peptic ulcer. Icterus. Diabetes mellitus I. Pathophysiology of thyroid gland. Pathophysiology of epilepsy. Pneumonia and lung cancer. Diabetes mellitus II. Pathophysiology of suprarenal glands. Disseminated intravascular coagulation.

## **Recommended literature:**

Hulín et al.: Pathophysiology. Bratislava, SAP 1997, 696 s.

Holzerová, J., Bakošová, M., Sapáková, E., Kraj?ovi?ová, ?., Hulín, I.: Pathophysiology.

Supplement 2000. Bratislava, SAP 2000, 80 s.

Hulin's Pathophysiological Letters. SAP, Bratislava, 1999, 123 pp.

Štvrtinová V., Jakubovský J., Hulín I.: Inflammation and Fever. 1995, 113 pp.

# Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 264

A	В	С	D	Е	FX
17,8	16,29	22,35	14,39	22,35	6,82

Lecturers: prof. MUDr. Fedor Šimko, CSc., prof. MUDr. Marián Bernadič, CSc., prof. MUDr. Beáta Mladosievičová, CSc., doc. RNDr. Ing. Peter Celec, DrSc., doc. MUDr. Barbara Ukropcová, PhD., MUDr. Ljuba Bachárová, DrSc., MUDr. RNDr. Ľudovít Paulis, PhD., MUDr. Tomáš Baka, PhD., doc. MUDr. RNDr. Roman Gardlík, PhD., MUDr. Kristína Repová, PhD.

Last change: 10.03.2020

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

LF ÚFKF/L-S-VLa-011/18

Course title:
Pharmacology 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 36s / 24s Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 6.

**Educational level:** I.II.

Prerequisites: LF.MÚ/L-S-VLa-045/17 - Microbiology 1

# **Course requirements:**

100% participation on practicals

Participation in 3 written tests, minimum is to achieve 70 %

Test rating: A: 94 - 100 %, B: 88 - 93 %, C: 82 - 87 %, D: 76 - 81 %, E: 70 - 75 %,

Fx: 69 % and less

Elaboration of a semestral work

The final rating is the arithmetic mean of all ratings

# **Learning outcomes:**

Knowledge:

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

#### Skills:

- ability to use and apply the knowledge on general pharmacology in subsequent study of special pharmacology

## Class syllabus:

Drug and society. How drugs act. Drugs information sources. Nomenclature. Types of drug action. Basic principles of the movement of drugs in the body. Basic pharmacokinetic concepts. Mechanisms of drug action on molecular level. Receptors. Adverse drug reactions. Risks of pharmacotherapy in pregnancy and during lactation. Risks of medication in the elderly. Good clinical practice. Pharmacogenetics. Pharmacoepidemiology. Pharmacovigilance. Pharmacoeconomics. Principles of drug prescription. Pharmacology of the autonomous nervous system. Pain and pharmacotherapeutic approach. Antimicrobial substances. The characteristics of betalactams, macrolides, glycopeptides and aminoglycosides, tetracyclines, chinolones and antibiotic specialities – antituberculotics, antiparasitics, antivirus substances. Cytostatics. Biologic drugs. Immunosuppresives and immunostimulants. Drugs used in the treatment of peptic ulcer, diseases if the intestine, pancreas, liver and gall-ducts.

# **Recommended literature:**

Katzung B.G. et al. Pharmacology. 9th Edition, McGraw Hill, 2010 Brenner, GM, and Stevens, CM: Pharmacology, 4th edition Philadelphia: Saunders/Elsevier, 2013.

Rang, HP et al.: Rang and Dale's Pharmacology. 7th edition Edingburgh: Elsevier, Churchill Livingstone, 2012.

# Languages necessary to complete the course:

## **Notes:**

# Past grade distribution

Total number of evaluated students: 350

A	В	С	D	Е	FX
36,0	42,29	18,57	2,86	0,29	0,0

**Lecturers:** prof. MUDr. Viera Kristová, CSc., prof. MUDr. Milan Kriška, DrSc., prof. MUDr. Martin Wawruch, PhD., doc. PharmDr. Andrea Gažová, PhD., MUDr. Kristína Hudecová, PhD., MUDr. Miriam Petrová, PhD., MUDr. Vasil Hricák, MUDr. Monika Laššánová, PhD., MUDr. Andrea Raganová, PhD., MUDr. Jana Tisoňová, PhD., MUDr. Róbert Vojtko, PhD.

Last change: 13.09.2018

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.ÚFKF/L-S-VLa-012/19

Pharmacology 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 36s / 24s

Form of the course: on-site learning

Number of credits: 7

**Recommended semester:** 7.

**Educational level: I.II.** 

Prerequisites: LF.ÚFKF/L-S-VLa-011/18 - Pharmacology 1,LF.MÚ/L-S-VLa-046/18 -

Microbiology 2

# **Course requirements:**

100% participation on practicals

Participation in 2 written tests, minimum is to achieve 70 %

Test rating: A: 94 - 100 %, B: 88 - 93 %, C: 82 - 87 %, D: 76 - 81 %, E: 70 - 75 %,

Fx: 69 % and less

Elaboration of a semestral work

Examination – written part – test (minimum is to achieve 70 %)

- theoretical part – three questions (one question general pharmacology,

two questions special pharmacology)

The final rating is the arithmetic mean of all ratings

# **Learning outcomes:**

Knowledge:

To acquire knowledge on drugs of particular pharmacodynamic groups with emphasis on:

- mechanisms of drug action
- pharmacokinetics
- clinical application
- adverse effects
- drug interactions

Skills:

- ability to apply the knowledge of pharmacology in clinical disciplines
- ability to judge the risk/benefit ratio of drugs in an individual patient

# Class syllabus:

Drugs of the cardiovascular system. Cardiotonics. Dysrhythmics. Antianginal drugs. Drugs used in the therapy of heart failure. Hypolipidemics. Antihypertensives. Vasodilator drugs. Antiaggregation drugs. Drugs used in psychiatry. Antidepressives. Anxiolytics. Cognitives. Antipsychotics. Drugs influencing the hormonal system. Antidiabetics, drugs used to treat dysfunction of adrenals. Glucocorticoids. Strategy of the treatment with glucocorticoids. Drugs influencing the urogenital system. Drugs influencing the smooth muscles, motoric activities and secretion in the

airways. Antiasthmatics. Vitamins in therapy. Methods of drugs evaluation. Principles of rational pharmacotherapy. Audit of the pharmacotherapy.

# **Recommended literature:**

Katzung B.G. et al. Pharmacology. 9th Edition, McGraw Hill, 2010

Brenner, GM, and Stevens, CM: Pharmacology, 4th edition Philadelphia: Saunders/Elsevier, 2013.

Rang, HP et al.: Rang and Dale's Pharmacology. 7th edition Edingburgh: Elsevier, Churchill Livingstone, 2012.

# Languages necessary to complete the course:

## **Notes:**

# Past grade distribution

Total number of evaluated students: 241

A	В	С	D	Е	FX
46,06	28,22	16,6	7,88	0,83	0,41

**Lecturers:** prof. MUDr. Viera Kristová, CSc., prof. MUDr. Milan Kriška, DrSc., prof. PharmDr. Daniela Ježová, DrSc., prof. MUDr. Martin Wawruch, PhD., doc. PharmDr. Andrea Gažová, PhD., MUDr. Miriam Petrová, PhD., MUDr. Jana Tisoňová, PhD.

Last change: 10.03.2020

Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF ÚTVŠ/L-S-VLa-075/16 Physical Training 1 **Educational activities:** Type of activities: practicals **Number of hours:** per week: per level/semester: 25s Form of the course: on-site learning Number of credits: 1 **Recommended semester:** 1. **Educational level: I.II. Prerequisites: Course requirements:** 100 % trainings attendance **Learning outcomes:** Knowledge: - theoretical knowledges about the importance of physical activity and sport for a healthy lifestyle - theoretical knowledges about history and presence of various type of sports - theoretical knowledges about strengthening, swimming and hiking - the rules of the different sports - sport as a medium of fair play Skills: - ractical skills of different kinds of sports - sports game activities for individuals, sports game combinations and sports game systems (defense, offense) - practical skills of strengthening Class syllabus: Theoretical education, methodology and practicing of following sports: basketball, volleyball, football- futsal, hockey, tennis, table tennis, badminton, swimming, aerobics, zumba, hiking (conditioning, walking and water) and winter sports according to the interest of students. Foundations and principles of exercise in the gym. Practicing and mastering the basic sports game activities and simple combinations in a sports game situations. Fundamentals of the rules, strategy and tactics in the selected sport. Exercises for students with limited sports abilities- fitness centrum, gym, swimming pool. Optional winter concentration. **Recommended literature:** 

Fitness and Strength Training for All Sports: Theory, Methods, Programs

# Languages necessary to complete the course:

Notes:

# Past grade distribution Total number of evaluated students: 934 ABS0 100,0 Lecturers: PaedDr. Róbert Važan, PhD., Mgr. Michal Korman, Mgr. Barbora Kociánová, PhD., Mgr. Monika Lamošová, Mgr. Henrich Krč, Mgr. Veronika Lovásová, PhD., Mgr. Petra Slyšková Last change: 22.12.2016 Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF ÚTVŠ/L-S-VLa-076/16 Physical Training 2 **Educational activities:** Type of activities: practicals **Number of hours:** per week: per level/semester: 25s Form of the course: on-site learning Number of credits: 1 **Recommended semester: 2. Educational level: I.II. Prerequisites: Course requirements:** 100% participation in seminars **Learning outcomes:** Knowledge: - Theoretical knowledge about the importance of physical activity and sport for a healthy life of man - Theoretical knowledge of the history and present various kinds of sport - Theoretical knowledge of strength training, swimming and tourism - The rules of the different sports - Sport as a means of fair play Skills: Practical skills of different kinds of sports - game activities, game combinations and game systems (defense, offense) Practical skills of strengthening Class syllabus: Teach the theory, methodology and practical coping following sports: basketball, volleyball, football- futsal, hockey, tennis, table tennis, badminton, swimming, aerobics, zumba, hiking (medium course, walking and water) and winter sports according to the interest of students. Foundations and principles of exercise in the gym. Practicing and mastering the basic game activities and simple combinations in game situations. Fundamentals of the rules, strategy and tactics in the selected sport. Exercises for medically fragile - fit, gym, swimming pool. Optional winter concentration. **Recommended literature:** Fitness and Strength Training for All Sports: Theory, Methods, Programs

Strana: 215

Languages necessary to complete the course:

Notes:

# Past grade distribution Total number of evaluated students: 851 ABS0 100,0 Lecturers: PaedDr. Róbert Važan, PhD., Mgr. Barbora Kociánová, PhD., Mgr. Michal Korman, Mgr. Monika Lamošová, Mgr. Henrich Krč, Mgr. Veronika Lovásová, PhD., Mgr. Petra Slyšková Last change: 22.12.2016 Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID:** Course title: LF ÚTVŠ/L-S-VLa-073/17 Physical Training 3 **Educational activities:** Type of activities: practicals **Number of hours:** per week: per level/semester: 25s Form of the course: on-site learning Number of credits: 1 **Recommended semester: 3. Educational level: I.II. Prerequisites: Course requirements:** 100% participation in seminars **Learning outcomes:** Knowledge: - Theoretical knowledge about the importance of physical activity and sport for a healthy life of man - Theoretical knowledge of the history and present various kinds of sport - Theoretical knowledge of strength training, swimming and tourism - The rules of the different sports - Sport as a means of fair play Skills: Practical skills of different kinds of sports - game activities, game combinations and game systems (defense, offense) Practical skills of strengthening Class syllabus: Course syllabus summary: Teach the theory, methodology and practical coping following sports: basketball, volleyball, football- futsal, hockey, tennis, table tennis, badminton, swimming, aerobics, zumba, hiking (medium course, walking and water) and winter sports according to the interest of students.

Foundations and principles of exercise in the gym. Practicing and mastering the basic game activities and simple combinations in game situations. Fundamentals of the rules, strategy and tactics in the selected sport. Exercises for medically fragile - fit, gym, swimming pool. Optional winter concentration.

#### Recommended literature:

Fitness and Strength Training for All Sports: Theory, Methods, Programs

# Languages necessary to complete the course:

**Notes:** 

# Past grade distribution Total number of evaluated students: 635 ABS0 100,0 Lecturers: PaedDr. Róbert Važan, PhD., Mgr. Monika Lamošová, Mgr. Barbora Kociánová, PhD., Mgr. Michal Korman, Mgr. Henrich Krč, Mgr. Veronika Lovásová, PhD., Mgr. Petra Slyšková Last change: 14.11.2018 Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID:** Course title: LF ÚTVŠ/L-S-VLa-074/17 Physical Training 4 **Educational activities:** Type of activities: practicals **Number of hours:** per week: per level/semester: 25s Form of the course: on-site learning Number of credits: 1 Recommended semester: 4. **Educational level: I.II. Prerequisites: Course requirements:** 100% participation in seminars **Learning outcomes:** Knowledge: - Theoretical knowledge about the importance of physical activity and sport for a healthy life of man - Theoretical knowledge of the history and present various kinds of sport - Theoretical knowledge of strength training, swimming and tourism - The rules of the different sports - Sport as a means of fair play Skills: Practical skills of different kinds of sports - game activities, game combinations and game systems (defense, offense) Practical skills of strengthening

## Class syllabus:

Teach the theory, methodology and practical coping following sports: basketball, volleyball, football- futsal, hockey, tennis, table tennis, badminton, swimming, aerobics, zumba, hiking (medium course, walking and water) and winter sports according to the interest of students. Foundations and principles of exercise in the gym. Practicing and mastering the basic game activities and simple combinations in game situations. Fundamentals of the rules, strategy and tactics in the selected sport. Exercises for medically fragile - fit, gym, swimming pool. Optional winter concentration.

#### **Recommended literature:**

Fitness and Strength Training for All Sports: Theory, Methods, Programs

# Languages necessary to complete the course:

Notes:

# Past grade distribution Total number of evaluated students: 594 ABS0 100,0 Lecturers: PaedDr. Róbert Važan, PhD., Mgr. Barbora Kociánová, PhD., Mgr. Michal Korman, Mgr. Monika Lamošová, Mgr. Henrich Krč, Mgr. Veronika Lovásová, PhD., Mgr. Petra Slyšková Last change: 14.11.2018 Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID:** Course title: LF ÚTVŠ/L-S-VLa-079/18 Physical Training 5 **Educational activities:** Type of activities: practicals **Number of hours:** per week: per level/semester: 25s Form of the course: on-site learning Number of credits: 1 **Recommended semester:** 5. **Educational level: I.II. Prerequisites: Course requirements:** 100% participation in seminars **Learning outcomes:** Knowledge: - Theoretical knowledge about the importance of physical activity and sport for a healthy life of man - Theoretical knowledge of the history and present various kinds of sport - Theoretical knowledge of strength training, swimming and tourism - The rules of the different sports - Sport as a means of fair play Skills: Practical skills of different kinds of sports - game activities, game combinations and game systems (defense, offense) Practical skills of strengthening Class syllabus: Teach the theory, methodology and practical coping following sports: basketball, volleyball, football- futsal, hockey, tennis, table tennis, badminton, swimming, aerobics, zumba, hiking (medium course, walking and water) and winter sports according to the interest of students. Foundations and principles of exercise in the gym. Practicing and mastering the basic game activities and simple combinations in game situations. Fundamentals of the rules, strategy and tactics in the selected sport. Exercises for medically fragile - fit, gym, swimming pool. Optional

#### **Recommended literature:**

winter concentration.

Fitness and Strength Training for All Sports: Theory, Methods, Programs

# Languages necessary to complete the course:

Notes:

# Past grade distribution Total number of evaluated students: 339 ABS0 100,0 Lecturers: PaedDr. Róbert Važan, PhD., Mgr. Barbora Kociánová, PhD., Mgr. Michal Korman, Mgr. Monika Lamošová, Mgr. Henrich Krč, Mgr. Veronika Lovásová, PhD., Mgr. Petra Slyšková Last change: 16.11.2018 Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID:** Course title: LF ÚTVŠ/L-S-VLa-080/18 Physical Training 6 **Educational activities:** Type of activities: practicals **Number of hours:** per week: per level/semester: 25s Form of the course: on-site learning Number of credits: 1 **Recommended semester:** 6. **Educational level: I.II. Prerequisites: Course requirements:** 100% participation in seminars **Learning outcomes:** Knowledge: - Theoretical knowledge about the importance of physical activity and sport for a healthy life of man - Theoretical knowledge of the history and present various kinds of sport - Theoretical knowledge of strength training, swimming and tourism - The rules of the different sports - Sport as a means of fair play Skills: Practical skills of different kinds of sports - game activities, game combinations and game systems (defense, offense) Practical skills of strengthening

## Class syllabus:

Teach the theory, methodology and practical coping following sports: basketball, volleyball, football- futsal, hockey, tennis, table tennis, badminton, swimming, aerobics, zumba, hiking (medium course, walking and water) and winter sports according to the interest of students. Foundations and principles of exercise in the gym. Practicing and mastering the basic game activities and simple combinations in game situations. Fundamentals of the rules, strategy and tactics in the selected sport. Exercises for medically fragile - fit, gym, swimming pool. Optional winter concentration.

#### **Recommended literature:**

Fitness and Strength Training for All Sports: Theory, Methods, Programs

# Languages necessary to complete the course:

Notes:

# Past grade distribution Total number of evaluated students: 319 ABS0 100,0 Lecturers: PaedDr. Róbert Važan, PhD., Mgr. Barbora Kociánová, PhD., Mgr. Michal Korman, Mgr. Monika Lamošová, Mgr. Henrich Krč, Mgr. Veronika Lovásová, PhD., Mgr. Petra Slyšková Last change: 16.11.2018 Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.FyÚ/L-S-VLa-013/17

Physiology 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 60s / 60s Form of the course: on-site learning

**Number of credits: 8** 

**Recommended semester: 3.** 

**Educational level: I.II.** 

**Prerequisites:** LF.AÚ/L-S-VLa-002/16 - Anatomy 2

## **Course requirements:**

100% presence in practical classes/seminars

To prepare protocols from all performed practical tasks

To submit the assigned seminar projects

To pass successfully 4 written tests (minimum 70 % each) after completing a specific topic

# **Learning outcomes:**

# Knowledge:

To obtain the knowledge of facts and to understand their relationships in the topic of blood physiology, physiology of the excitable tissues, physiology of the digestive system, nutrition and metabolism. To gain basic knowledge about diseases prevention and healthy lifestyle.

#### Skills:

To acquire skills in recording, evaluation and interpretation of results of selected blood examinations, examinations of the respiratory system and metabolism, examination of dietary habits and nutritional status. To gain/improve basic laboratory skills (use of microscope, pipette), basic medical examinations and measurements (determination of hematocrit, blood groups, haemoglobin concentration, count of blood elements, leukogram, metabolic rate, assessment of nutritional status, basics of spirometry, oximetry).

#### Class syllabus:

Blood - blood plasma, blood elements, acid-base balance, osmotic pressure, blood groups, blood coagulation and haemostasis, erythropoiesis.

Excitable tissues - receptors, membrane potential, nerve excitability, synapses, reflex and the reflex arc, functional properties of nerves, skeletal and smooth muscle.

Respiration - functions of the respiratory system, ventilation, exchange of respiratory gases, the lung volumes and capacities, transport of O2 and CO2, breathing and regulation of the blood pH, influence of changes in atmospheric pressure, regulation of breathing.

The digestive system - mastication, swallowing, gastric motility, the small and large intestine motility, the function of digestive juices and their secretion, digestion and absorption of nutrients, the function of the liver, regulations.

Nutrition and metabolism – nutrients and their functions, principles of balanced diet, energy intake and expenditure, basal metabolic rate and its measurement, metabolism in physical activity, oxygen debt, metabolism of carbohydrates, fats, proteins and its regulation.

#### **Recommended literature:**

OSTATNÍKOVÁ, D. et al. Basics of Medical Physiology. Bratislava: Comenius University, 2014. 264 p. ISBN 978-80-223-3563-8.

OSTATNÍKOVÁ, D. et al. Laboratory Guide to Medical Physiology. Bratislava: Univerzita Komenského, 2014. 212 p. ISBN 978-80-223-3720-5.

SILVERTHORN, D.U. Human Physiology: An Integrated Approach. 7th ed. University of Texas, Austin. Pearson, 2015. 960 p. ISBN 978-12-9209-493-9.

KOEPPEN, B.M. and STANTON, B.A., eds. Berne & Levy Physiology: With Student Consult Online Access. 6th ed. Philadelphia: Mosby Elsevier, 2010. 848 p. ISBN 978-0323073622. HALL, J.E. Guyton and Hall Textbook of Medical Physiology. 13th ed. Philadelphia: Saunders Elsevier, 2016. 1146 p. ISBN 978-1-4557-7016-8.

#### Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 664

A	В	С	D	Е	FX
26,81	29,52	22,14	16,11	3,46	1,96

Lecturers: prof. MUDr. Daniela Ostatníková, PhD., prof. MUDr. Boris Mravec, PhD., doc. MUDr. Katarína Babinská, PhD., doc. MUDr. Jana Radošinská, PhD., doc. MUDr. Mgr. Július Hodosy, PhD., MUDr. Rastislav Važan, PhD., MUDr. Silvia Hnilicová, PhD., MUDr. Mgr. Rudolf Drábek, Aleksandra Sashova Tomova, Ph.D., doc. RNDr. Ján Bakoš, PhD., RNDr. Jaroslava Babková, PhD., RNDr. Silvia Lakatošová, PhD., doc. RNDr. Ľubomíra Tóthová, PhD., Mgr. Gabriela Repiská, PhD.

Last change: 10.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

**Course ID:** 

**Course title:** 

LF.FyÚ/L-S-VLa-014/17

Physiology 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 60s / 60s Form of the course: on-site learning

Number of credits: 10

Recommended semester: 4.

**Educational level: I.II.** 

Prerequisites: LF.AÚ/L-S-VLa-003/17 - Anatomy 3,LF.FyÚ/L-S-VLa-013/17 - Physiology 1

# **Course requirements:**

100% presence in practical classes/seminars

To prepare protocols from all performed practical tasks

To submit the assigned seminar projects

To pass successfully 4 written tests (minimum 70 % each) after completing a specific topic Final complex examination

- a complex written test (minimum points to pass 70%)
- practical part of the examination: to perform a practical task and to evaluate the result
- oral part of the examination: 2 questions on medical physiology

The final evaluation is based on the results of all 3 parts.

# Learning outcomes:

# Knowledge:

To obtain the knowledge of facts and to understand their relationships in the topic of cardiovascular physiology, thermoregulation, excretory system, endocrine system and reproduction, senses, and central nervous system. To acquire basic knowledge about of disease prevention and healthy lifestyle.

#### Skills:

To acquire skills in recording, evaluation and interpretation of results of selected examinations of the cardiovascular system, sensory organs, and central nervous system. To gain/improve skills in basic medical examinations and measurements (examination of the arterial pulse, blood pressure, ECG, visual acuity, eye ground, visual field, otoscopy and audiometry, examination of reflexes). To get skills in presentation of scientific information and information about disease prevention and healthy lifestyle in form of short lecture and discussion.

#### Class syllabus:

Cardiovascular system - physiological properties of the cardiac muscle, cardiac cycle, heart sounds, arterial pulse, electrocardiography, blood flow in vessels, blood pressure, transcapillary exchange, lymph circulation, regional blood circulations.

Thermoregulation - body temperature and its biorhythms, heat production and losses, mechanisms of thermoregulation.

Kidneys - body fluids and their ion-structure, glomerular filtration rate and tubular processes, acid-base balance, formation and excretion of urine, regulation of renal functions.

Endocrine glands and reproduction - mechanisms of hormonal action, function of the hypothalamus - pituitary system, functions of hormones and endocrine glands.

Special senses - receptors, their classification and function, specialization of receptors, receptor potentials - vision, hearing, taste, olfaction, sense of balance, mechanoception, thermoreception, nociception, proprioception.

Physiology of central nervous system – reflex, reflex arch, sensation and perception, regulation of movements and muscle tone, higher nervous functions - memory, emotions, learning, speech, functional specialization of brain hemispheres.

## **Recommended literature:**

OSTATNÍKOVÁ, D. et al. Basics of Medical Physiology. Bratislava: Comenius University, 2014. 264 p. ISBN 978-80-223-3563-8.

OSTATNÍKOVÁ, D. et al. Laboratory Guide to Medical Physiology. Bratislava: Univerzita Komenského, 2014. 212 p. ISBN 978-80-223-3720-5.

SILVERTHORN, D.U. Human Physiology: An Integrated Approach. 7th ed. University of Texas, Austin. Pearson, 2015. 960 p. ISBN 978-12-9209-493-9.

KOEPPEN, B.M. and STANTON, B.A., eds. Berne & Levy Physiology: With Student Consult Online Access. 6th ed. Philadelphia: Mosby Elsevier, 2010. 848 p. ISBN 978-0323073622.

HALL, J.E. Guyton and Hall Textbook of Medical Physiology. 13th ed. Philadelphia: Saunders Elsevier, 2016. 1146 p. ISBN 978-1-4557-7016-8.

# Languages necessary to complete the course:

#### **Notes:**

#### Past grade distribution

Total number of evaluated students: 491

A	В	С	D	Е	FX
18,33	18,94	19,76	16,7	13,44	12,83

Lecturers: prof. MUDr. Daniela Ostatníková, PhD., prof. MUDr. Boris Mravec, PhD., doc. MUDr. Jana Radošinská, PhD., doc. MUDr. Katarína Babinská, PhD., doc. MUDr. Mgr. Július Hodosy, PhD., MUDr. Rastislav Važan, PhD., MUDr. Silvia Hnilicová, PhD., doc. RNDr. Ján Bakoš, PhD., MUDr. Mgr. Rudolf Drábek, Aleksandra Sashova Tomova, Ph.D., RNDr. Jaroslava Babková, PhD., Mgr. Gabriela Repiská, PhD., doc. RNDr. Ľubomíra Tóthová, PhD., RNDr. Silvia Lakatošová, PhD.

Last change: 10.03.2020

University: Co	menius Universit	y in Bratislava				
Faculty: Facult	y of Medicine					
Course ID: LF.FyÚ/L-S-VI	Course ID:  LF.FyÚ/L-S-VLa-152-4/19  Course title:  Principles of Medical Education					
	ties: lecture					
Number of cree	dits: 2					
Recommended	semester: 7.					
<b>Educational lev</b>	vel: I.II.			_		
Prerequisites:						
Course require	ments:					
Learning outco	omes:					
Class syllabus:						
Recommended	literature:					
Languages nec	essary to compl	ete the course:		_		
Notes:						
Past grade dist Total number o	<b>ribution</b> f evaluated stude	ents: 14				
A	В	C	D	Е	FX	
100,0	100,0 0,0 0,0 0,0 0,0					
		ová, PhD., prof. l Tomáš Dallos, l		Ostatníková, PhD	., doc. RNDr.	
Last change:						
Approved by:					_	

University: Comenius University in Bratislava							
Faculty: Facult	Faculty: Faculty of Medicine						
Course ID: LF.FyÚ/L-S-VI	Course ID:  LF.FyÚ/L-S-VLa-152-5/19  Course title:  Principles of Medical Education						
	ties: lecture						
Number of cree	dits: 2						
Recommended	semester: 9.						
Educational lev	v <b>el:</b> I.II.						
Prerequisites:							
Course require	ments:						
Learning outco	omes:						
Class syllabus:							
Recommended	literature:						
Languages nec	essary to compl	ete the course:		_			
Notes:							
Past grade dist Total number o	ribution f evaluated stude	ents: 2					
A	В	С	D	Е	FX		
100,0	100,0 0,0 0,0 0,0 0,0						
<b>Lecturers:</b> MUDr. Silvia Hnilicová, PhD., prof. MUDr. Daniela Ostatníková, PhD., doc. RNDr. Pavol Vitovič, PhD., doc. MUDr. Tomáš Dallos, PhD.							
Last change:							
Approved by:	Approved by:						

<b>University:</b> Con	nenius Universit	y in Bratislava		_	
Faculty: Faculty	y of Medicine				
Course ID: LF.ÚLFBIT/L-S		Course title: Principles of eHe	ealth		
Form of the co	ties: lecture urs: er level/semeste ourse: on-site lea				
Number of cred					
Recommended	<del></del>				
Educational lev	vel: I.II.				
Prerequisites:					
Course require	ments:				
Learning outco	mes:			_	
Class syllabus:					
Recommended	literature:				
Languages nece	essary to compl	ete the course:			
Notes:					
Past grade dist	ribution f evaluated stude	ents: 24			
A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: doc.	RNDr. Martin K	Kopáni, PhD., doc	. RNDr. Pavol V	itovič, PhD.	
Last change:					
Approved by:					

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.PK/L-S-VLa-062/19 Psychiatry 1

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 25s Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 8.

**Educational level: I.II.** 

Prerequisites: LF.NK1/L-S-VLa-047/19 - Neurology 1

## **Course requirements:**

100 % practicals attendance

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

# Learning outcomes:

# Knowledge:

- Understand the etiology, pathogenesis, epidemiology, clinical manifestations of mental disorders
- Learn the investigational procedures, principles of treatment and rehabilitation in psychiatry, legal status and assessment of persons with mental disorders in childhood and adulthood
- Understand the causes, clinical, diagnostic and therapeutic procedures in emergency conditions in psychiatry
- Understand the psychopathological symptoms and the classification of mental disorders according to ICD-10  $\,$

#### Skills:

- Master the general principles of communication with patients suffering mental disorder in childhood and adulthood
- Demonstrate the ability to identify psychopathological symptoms within clinical psychiatric examination of persons with psychiatric disorders in childhood and adulthood
- Demonstrate the ability to investigate the psychological functions (clinically, screening scales) specifically
- Master the identification of relevant data from medical history and assess their potential relationship to psychopathological symptoms

# Class syllabus:

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.

## **Recommended literature:**

Kolibáš, E. a kol.: Introduction to clinical psychiatry. Bratislava: Asklepios, 1996. 107 pp. ISBN 80-967610-0-5

Semple, D. – Smyth, R.: Oxford Handbook of Psychiatry, 2nd Edition. Oxford University Press, 2009. 977 pp. ISBN 978-0-19-923946-7

Sadock, B. J. – Sadock, V. A.: Kaplan and Sadock's Synopsis of Psychiatry, 10th Edition. Lippincott Williams & Wilkins, 2010. 1470 pp. ISBN 978-0781773270

# Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 114

A	В	С	D	Е	FX
23,68	52,63	19,3	2,63	1,75	0,0

**Lecturers:** doc. MUDr. Ľubomíra Izáková, PhD., MUDr. Dana Krajčovičová, PhD., MUDr. Mária Králová, CSc., prof. MUDr. Ján Pečeňák, CSc., doc. MUDr. Igor Škodáček, PhD., doc. MUDr. Jana Trebatická, PhD.

Last change: 10.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.PK/L-S-VLa-063/19 Psychiatry 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 25s Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 9.

**Educational level: I.II.** 

Prerequisites: LF.PK/L-S-VLa-062/19 - Psychiatry 1,LF.NK1/L-S-VLa-048/19 - Neurology 2

# **Course requirements:**

100% participation at practical trainings

Exam: written test (minimally for 60%)

Valuation of the test: A: 91 – 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %,

Fx: 59 % and less

Oral exam: 2 questions (1 from general, 1 from special psychiatry)

Overall valuation will be assigned due to the average of obtained valuations.

# Learning outcomes:

Knowledge: to be familiar with etiology, pathogenesis, epidemiology, clinical presentations, diagnostics, differential diagnostics, treatment, rehabilitation and appraisal of the main groups of mental disorders in children and adults.

Skills: 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.

#### Class syllabus:

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.

#### **Recommended literature:**

Jarema, M. (Ed) et al: Practical aspects of Psychiatry. Amepra, Praha, 2009, 408pp, ISBN 978-80-86694-08-5

Kolibáš, E. et al.: Introduction to Clinical Psychiatry, Asclepios, Bratislava, 1996,107 p. ISBN 80-967610-0-5

Semple D., Smyth R. Oxford Handbook of Psychiatry. 2nd Edition, 2009, 977p, ISBN 978-0-19-923946-7

#### Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 108 C A В D E FX 0,93 37,96 7,41 0,0 51,85 1,85

**Lecturers:** prof. MUDr. Ján Pečeňák, CSc., doc. MUDr. Igor Škodáček, PhD., doc. MUDr. Jana Trebatická, PhD., doc. MUDr. Ľubomíra Izáková, PhD., MUDr. Mária Králová, CSc.

**Last change:** 10.03.2020

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.PK/L-VLa-064/11 Psychiatry 2

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 25s Form of the course: on-site learning

Number of credits: 3

Recommended semester: 9.

**Educational level:** I.II.

# **Prerequisites:**

#### **Course requirements:**

100% participation at practical trainings

Exam: written test (minimally for 60%)

Valuation of the test: A: 91 - 100 %, B: 81 - 99 %, C: 73 - 80 %, D: 66 - 72 %, E: 60 - 65 %,

Fx: 59 % and less

Oral exam: 2 questions (1 from general, 1 from special psychiatry)

Overall valuation will be assigned due to the average of obtained valuations.

# **Learning outcomes:**

- Knowledge: to be familiar with etiology, pathogenesis, epidemiology, clinical presentations, diagnostics, differential diagnostics, treatment, rehabilitation and appraisal of the main groups of mental disorders in children and adults.
- Skills: 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.

#### Class syllabus:

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.

#### **Recommended literature:**

Jarema, M. (Ed) et al: Practical aspects of Psychiatry. Amepra, Praha, 2009, 408pp, ISBN 978-80-86694-08-5

Kolibáš, E. et al.: Introduction to Clinical Psychiatry, Asclepios, Bratislava, 1996,107 p. ISBN 80-967610-0-5

Semple D., Smyth R. Oxford Handbook of Psychiatry. 2nd Edition, 2009, 977p, ISBN 978-0-19-923946-7

Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 799							
A	В	С	D	Е	FX		
19,02	27,41	23,15	16,27	13,14	1,0		

Lecturers: prof. MUDr. Ján Pečeňák, CSc., doc. MUDr. Igor Škodáček, PhD., doc. MUDr. Ľubomíra Izáková, PhD., MUDr. Mária Králová, CSc., doc. MUDr. Jana Trebatická, PhD., doc. MUDr. Tatiana Čaplová, CSc., PhDr. Michal Hajdúk, PhD., MUDr. Peter Janík, PhD., MUDr. Viktor Segeda, MUDr. Michal Turček, PhD., Mgr. Miroslava Zimányiová, PhD., PhDr. Zuzana Hradečná, MUDr. Zuzana Matzová, PhD.

**Last change:** 05.12.2016

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.RK/L-S-VLa-064/19 Radiology and Nuclear Medicine

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 16s / 20s

Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 7.

**Educational level: I.II.** 

Prerequisites: LF. ÚPA/L-S-VLa-055/18 - Pathological Anatomy 2, LF. ÚPF/L-S-VLa-057/18 -

Pathological Physiology 2

## **Course requirements:**

## **Learning outcomes:**

### Class syllabus:

Radiodiagnostics - history of radiology, principles of X-rays, X-ray tube, radiation protection, US, CT, MRI.

Clinical knowledge about diseases of brain, lungs, heart, GIT, urogynecology, musculoskeletal system, soft tissue, ENT, mammology and radiographic, US, CT and MRI picture interpretation. Nuclear Medicine - equipment used in NM, biological effect of radiation. Using of NM in GIT, the uropoetic tractus, chest - lung and heart bone system, neurosystem, etc.

## **Recommended literature:**

R.B. Gunderman: Essential Radiology

Armstrong Peter, Waskie Martin L.: Diagnostic Imaging, 3rd Ed., 1992,

Sutton D.: Radiology and Imaging for medical students, Edinburgh, Churchill Livingstone 1994, 259 p.

Alazraki, P. and Mishkin, S.: Fundamentals of Nuclear Medicine, 1991, 188 p.

Mettler, F.A. and Guiberteau, M.J. Essentials of Nuclear Medicine Imaging, 1991, 326 p.,

W.B.Saunders Company, Harcourt Brace Jovanovich Inc., The Curtis Center, Independence Square West, Philadelphia, PA 19106

# Languages necessary to complete the course:

## **Notes:**

#### Past grade distribution

Total number of evaluated students: 242

A	В	С	D	Е	FX
14,05	21,07	28,1	23,97	12,4	0,41

**Lecturers:** prof. MUDr. Jozef Bilický, CSc., doc. MUDr. Soňa Balogová, PhD., doc. MUDr. Viera Lehotská, PhD., doc. MUDr. Jana Poláková Mištinová, PhD., MUDr. Vladimír Javorka, PhD., MUDr. Lucia Vanovčanová, PhD.

**Last change:** 10.03.2020

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.RK1/L-VLa-065/09 Radiology and Nuclear Medicine

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 24s Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 7.

**Educational level: I.II.** 

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

## Class syllabus:

Radiodiagnostics - history of radiology, principles of X-rays, X-ray tube, radiation protection, US, CT, MRI.

Clinical knowledge about diseases of brain, lungs, heart, GIT, urogynecology, musculoskeletal system, soft tissue, ENT, mammology and radiographic, US, CT and MRI picture interpretation. Nuclear Medicine - equipment used in NM, biological effect of radiation. Using of NM in GIT, the uropoetic tractus, chest - lung and heart bone system, neurosystem, etc.

# **Recommended literature:**

R.B. Gunderman: Essential Radiology

Armstrong Peter, Waskie Martin L.: Diagnostic Imaging, 3rd Ed., 1992,

Sutton D.: Radiology and Imaging for medical students, Edinburgh, Churchill Livingstone 1994, 259 p.

Alazraki, P. and Mishkin, S.: Fundamentals of Nuclear Medicine, 1991, 188 p.

Mettler, F.A. and Guiberteau, M.J. Essentials of Nuclear Medicine Imaging, 1991, 326 p.,

W.B.Saunders Company, Harcourt Brace Jovanovich Inc., The Curtis Center, Independence

Square West, Philadelphia, PA 19106

## Languages necessary to complete the course:

#### **Notes:**

# Past grade distribution

Total number of evaluated students: 887

A	В	С	D	Е	FX
29,76	31,79	21,31	12,4	4,62	0,11

**Lecturers:** prof. MUDr. Jozef Bilický, CSc., doc. MUDr. Soňa Balogová, PhD., doc. MUDr. Viera Lehotská, PhD., doc. MUDr. Jana Poláková Mištinová, PhD., MUDr. Vladimír Javorka, PhD.,

MUDr. Vladimír Pročka, MUDr. Lucia Vanovčanová, PhD., MUDr. Andrea Baisová, MUDr. Elena
Janvarsová
<b>Last change:</b> 02.06.2015

University: Comenius University in Bratislava Faculty: Faculty of Medicine Course ID: **Course title:** LF ÚCJ/L-S-VLa-083/16 Slovak Language 1 **Educational activities:** Type of activities: practicals **Number of hours:** per week: per level/semester: 48s Form of the course: on-site learning Number of credits: 1 **Recommended semester:** 1. **Educational level: I.II. Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 967 В  $\mathbf{C}$ D E FX 42,92 28,85 13,03 7,76 4,96 2,48

Lecturers: Ing. Janka Bábelová, PhD., Mgr. Radoslav Ďurajka, PhD., PhDr. Valéria Jamrichová, Mgr. Angela Škovierová, PhD., Mgr. Oľga Vaneková, PhD., PhDr. Rudolf Kapitáň, Mgr. Lýdia Ďurišová, Mgr. Jana Navrátilová, Mgr. Milota Haláková, PhDr. Mária Vrábelová, Mgr. Patricia Kotlebová, PhD., Mgr. Marína Kšiňanová, Mgr. Ľubomír Holík, Mgr. Katarína Hromadová, PhD., PhDr. Tomáš Hamar, PhD.

Last change: 30.09.2016

Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.ÚCJ/L-S-VLa-084/16 Slovak Language 2

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: per level/semester: 48s Form of the course: on-site learning

Number of credits: 1

**Recommended semester: 2.** 

**Educational level:** I.II.

Prerequisites: LF.ÚCJ/L-S-VLa-083/16 - Slovak Language 1

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 920

Total hamber of evaluated statems. 720								
A	В	С	D	Е	FX			
43,15	28,26	16,3	7,07	3,48	1,74			

Lecturers: Ing. Janka Bábelová, PhD., Mgr. Radoslav Ďurajka, PhD., PhDr. Valéria Jamrichová, Mgr. Angela Škovierová, PhD., Mgr. Oľga Vaneková, PhD., Mgr. Lýdia Ďurišová, Mgr. Milota Haláková, PhDr. Mária Vrábelová, PhDr. Rudolf Kapitáň, Mgr. Jana Navrátilová, Mgr. Patricia Kotlebová, PhD., Mgr. Marína Kšiňanová, Mgr. Daniela Rošková, PhD., Mgr. Ľubomír Holík, Mgr. Katarína Hromadová, PhD., PhDr. Tomáš Hamar, PhD.

**Last change:** 30.09.2016

Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine Course ID: **Course title:** LF ÚCJ/L-S-VLa-088/18 Slovak Language 3 **Educational activities:** Type of activities: practicals **Number of hours:** per week: per level/semester: 48s Form of the course: on-site learning Number of credits: 2 **Recommended semester: 3.** Educational level: I.II. Prerequisites: LF.ÚCJ/L-S-VLa-084/16 - Slovak Language 2 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 498 В  $\mathbf{C}$ D E FX 35,54 28,11 17,27 10,44 6,83 1,81 Lecturers: Ing. Janka Bábelová, PhD., Mgr. Radoslav Ďurajka, PhD., Mgr. Milota Haláková, PhDr. Valéria Jamrichová, Mgr. Marína Kšiňanová, Mgr. Angela Škovierová, PhD., Mgr. Oľga Vaneková, PhD., Mgr. Lýdia Ďurišová, PhDr. Rudolf Kapitáň, Mgr. Jana Navrátilová, PhDr. Mária Vrábelová, Mgr. Patricia Kotlebová, PhD., Mgr. Ľubomír Holík, Mgr. Katarína Hromadová, PhD., PhDr. Tomáš Hamar, PhD.

Strana: 244

Last change:

University: Comenius University in Bratislava Faculty: Faculty of Medicine Course ID: **Course title:** LF ÚCJ/L-S-VLa-089/18 Slovak Language 4 **Educational activities:** Type of activities: practicals **Number of hours:** per week: per level/semester: 48s Form of the course: on-site learning Number of credits: 3 Recommended semester: 4. Educational level: I.II. Prerequisites: LF.ÚCJ/L-S-VLa-088/18 - Slovak Language 3 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 432 В  $\mathbf{C}$ D E FX 56,94 21,06 6,02 2,55 2,31 11,11 Lecturers: Ing. Janka Bábelová, PhD., Mgr. Radoslav Ďurajka, PhD., Mgr. Milota Haláková, PhDr. Valéria Jamrichová, Mgr. Marína Kšiňanová, Mgr. Angela Škovierová, PhD., Mgr. Oľga Vaneková, PhD., Mgr. Lýdia Ďurišová, PhDr. Rudolf Kapitáň, PhDr. Mária Vrábelová, Mgr. Jana

Navrátilová, Mgr. Patricia Kotlebová, PhD., Mgr. Ľubomír Holík, Mgr. Katarína Hromadová, PhD., PhDr. Tomáš Hamar, PhD.

Last change:

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.ÚSLLE/L-S-VLa-065/19

Social Medicine

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: per level/semester: 12s / 24s

Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 8.

**Educational level: I.II.** 

**Prerequisites:** 

## **Course requirements:**

100% attendance at seminars

## **Learning outcomes:**

Knowledge:

After successful completion of the course student will be able to:

- Understand the scope, mission and tasks of social medicine.
- Identify the most important periods from the history of medicine.
- Demonstrate the basic knowledge from philosophy of medicine.
- Describe the methods of population health assessment.
- Describe the models and theories of health and disease, their determinants.
- Describe the role of social factors in shaping the health of individuals and populations.
- Understand the basic principles of health financing.
- Know the basics of medical law and basic legal obligations of physician.
- Understand the principles of quality improvement and patient safety in health care.
- Understand the obligation to protect human rights in medical practice.
- Describe the main principles and steps in evidence-based medicine

Skills:

After successful completion of the course student will be able to:

- Measure and assess the health status of the population.
- Analyze the health inequities in relation to social determinants.
- Compare and analyze different types of health systems.
- Discuss and apply the health legislation and principles of medical law in health care.
- Discuss the role of international organizations in promotion and protection of health.
- Apply the principles of quality improvement and patient safety in medical practice.
- Identify and resolve human rights issues in medical practice.
- Search and apply the evidence-based approaches in medical practice.

# Class syllabus:

Social medicine – origin, development, scope, its position in the system of medical sciences. History of medicine and health care. Philosophy of medicine. Basics of medical law. Legal liability in health care. Health and disease: concepts, models, determinants, classification systems. Social

determinants and health inequities. Health systems and health financing. 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. Quality in health care: definitions, dimensions, quality management models in health care. Health and human rights. Evidence-based medicine: definition, principles, steps

#### **Recommended literature:**

Recommended literature:

Kostičová M. (ed.). Social Medicine. Bratislava: Comenius University in Bratislava, 2015.

Kostičová, M., Ozorovský, V., Badalík L., Fabian G. An Introduction to Social Medicine.

Bratislava: Asklepios, 2011.

Health 2020 – An European policy framework supporting action across government and societyfor health and well-being. Copenhagen: WHO Regional Office for Europe, World Health Organisation, 2012.

# Languages necessary to complete the course:

#### **Notes:**

#### Past grade distribution

Total number of evaluated students: 113

A	В	С	D	Е	FX
82,3	16,81	0,0	0,88	0,0	0,0

**Lecturers:** doc. MUDr. Vojtech Ozorovský, CSc., Mgr. et Mgr. Silvia Capíková, PhD., MUDr. Michaela Kostičová, PhD., MPH

**Last change:** 10.03.2020

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID:

**Course title:** 

LF.ÚSLLE/L-VLa-066/00

Social Medicine

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 24s

Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level:** I.II.

**Prerequisites:** 

## **Course requirements:**

100% attendance at seminars

## **Learning outcomes:**

Knowledge:

After successful completion of the course student will be able to:

- Understand the scope, mission and tasks of social medicine.
- Identify the most important periods from the history of medicine.
- Demonstrate the basic knowledge from philosophy of medicine.
- Describe the methods of population health assessment.
- Describe the models and theories of health and disease, their determinants.
- Describe the role of social factors in shaping the health of individuals and populations.
- Understand the basic principles of health financing.
- Know the basics of medical law and basic legal obligations of physician.
- Understand the principles of quality improvement and patient safety in health care.
- Understand the obligation to protect human rights in medical practice.
- Describe the main principles and steps in evidence-based medicine

Skills:

After successful completion of the course student will be able to:

- Measure and assess the health status of the population.
- Analyze the health inequities in relation to social determinants.
- Compare and analyze different types of health systems.
- Discuss and apply the health legislation and principles of medical law in health care.
- Discuss the role of international organizations in promotion and protection of health.
- Apply the principles of quality improvement and patient safety in medical practice.
- Identify and resolve human rights issues in medical practice.
- Search and apply the evidence-based approaches in medical practice.

# Class syllabus:

Social medicine – origin, development, scope, its position in the system of medical sciences. History of medicine and health care. Philosophy of medicine. Basics of medical law. Legal liability in health care. Health and disease: concepts, models, determinants, classification systems. Social

determinants and health inequities. Health systems and health financing. 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. Quality in health care: definitions, dimensions, quality management models in health care. Health and human rights. Evidence-based medicine: definition, principles, steps

#### **Recommended literature:**

Kostičová M. (ed.). Social Medicine. Bratislava: Comenius University in Bratislava, 2015. Kostičová, M., Ozorovský, V., Badalík L., Fabian G. An Introduction to Social Medicine. Bratislava: Asklepios, 2011.

Health 2020 – An European policy framework supporting action across government and societyfor health and well-being. Copenhagen: WHO Regional Office for Europe, World Health Organisation, 2012.

# Languages necessary to complete the course:

## **Notes:**

#### Past grade distribution

Total number of evaluated students: 991

A	В	С	D	Е	FX
69,42	14,83	7,77	3,63	4,24	0,1

**Lecturers:** doc. MUDr. Vojtech Ozorovský, CSc., MUDr. Michaela Kostičová, PhD., MPH, Mgr. et Mgr. Silvia Capíková, PhD.

**Last change:** 22.12.2016

# STATE EXAM DESCRIPTION

University: Comenius University in Bratislava				
Faculty: Faculty of Medicine				
Course ID: LF.ChK/L-VLa-ŠS-2/15	Course title: Surgery			
Number of credits: 2				
Recommended semester: 11., 12				
Educational level: I.II.				
State exam syllabus:				
Last change:				
Approved by:				

University: Comenius University in Bratislava					
Faculty: Faculty of Medicine					
Course ID: LF.ChK1/L-S-VLa-104/19	Course title: Surgery - summer practice				
Educational activities: Type of activities: practice Number of hours: per week: per level/semest Form of the course: on-site le					
Number of credits: 3					
Recommended semester: 8.					
Educational level: I.II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 127					
ABS0					
	100,0				
Lecturers: MUDr. Marianna H Koller, CSc.	ajská, PhD., doc. MUDr. Marián Vician, CSc., prof. MUDr. Ján				
Last change:					
Approved by:					

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF.ChK1/L-S-VLa-021/19 Surgery 1 **Educational activities:** Type of activities: lecture / practicals **Number of hours:** per week: per level/semester: 24s / 40s Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 7. **Educational level:** I.II. Prerequisites: LF.ChK1/L-S-VLa-026/18 - Surgical Propedeutics **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 235 В  $\mathbf{C}$ D E FX 57,02 24,68 14,04 3,4 0,85 0,0 Lecturers: prof. MUDr. Peter Labaš, CSc., doc. MUDr. Milan Schnorrer, CSc., doc. MUDr. Marián Vician, CSc., MUDr. Boris Hrbatý, PhD., MUDr. Milan Oravský, PhD., MUDr. Richard Reis, PhD. Last change:

Strana: 252

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID: Course title:** LF.ChK1/L-S-VLa-022/19 Surgery 2 **Educational activities:** Type of activities: lecture / practicals **Number of hours:** per week: per level/semester: 24s / 30s Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 8. **Educational level:** I.II. Prerequisites: LF.ChK1/L-S-VLa-021/19 - Surgery 1 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 118 A В  $\mathbf{C}$ D Ε FX 27,97 65,25 4,24 1,69 0,0 0,85 Lecturers: prof. MUDr. Peter Labaš, CSc., doc. MUDr. Milan Schnorrer, CSc., doc. MUDr. Marián Vician, CSc., MUDr. Boris Hrbatý, PhD., MUDr. Richard Reis, PhD., MUDr. Milan Oravský, PhD. Last change:

Strana: 253

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.OTK1/L-VLa-048/11 Surgery 3

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 24s / 25s Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 9.

**Educational level: I.II.** 

**Prerequisites:** 

**Course requirements:** 

## **Learning outcomes:**

#### Class syllabus:

Uro-oncology, diseases of the prostate, male infertility, erection disorders, acute and chronic renal insufficiency, urolithiasis, acute states in urology. Tumours, inflammations and injuries of the central and peripheral nervous system.

### **Recommended literature:**

Recommended literature:

D. C. Sabiston: Textbook of Surgery, Philadelphia, W.B. Saunders Company, 208 p.

Lawrence W. Way: Current Surgical Diagnosis And Treatment, 10th Ed., San Fransisco.,

Appleton - Lange 1993, 1196 p.

R. D. Liechty, R.T. Soper: Fundamentals of Surgery, Mosby Comp. 1989, 648p.

Lonnie R. Mercier: Practical Orthopedics, 2nd Ed., Year Book Medical Publishers, Inc., Chicago-London, 1987, 365 p.

Traumacare, William Odling Smee M.B.F.C.S., 1981

Leund M. S., McKroyd J.S.: Illustrated handbook of General Surgery, 1991

Bailey and Love's: Short practice of Surgery, Chapman and Hall: Medical, London, Glasgow,

New York, Tokyo, Melbourne, Madras. 22nd Ed., 1041 p.

Hamilton Bailey: Demonstration of Physical Signs in Clinical Surgery. Bristol, John Wright and SonLtd.

Smith's General Urology, Edited by Tanagho E.A., Aninch, J.W., Appleton - Lange, San Mateo, California, 1995

## Languages necessary to complete the course:

#### **Notes:**

#### Past grade distribution

Total number of evaluated students: 894

A	В	С	D	Е	FX
76,17	11,07	7,05	3,36	1,23	1,12

**Lecturers:** Dr.h.c. prof. MUDr. Ján Breza, DrSc., prof. MUDr. Viktor Matejčík, CSc., prof. MUDr. Juraj Šteňo, DrSc., doc. MUDr. Andrej Šteňo, PhD., MPH, MUDr. Martin Novotný, PhD., MUDr. Andrey Švec, PhD., MUDr. Ján Kozák, doc. MUDr. Ing. Ján Breza, PhD.

Last change: 02.06.2015

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: LF.OTK1/L-VLa-049/11 Surgery 4

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 29s / 25s Form of the course: on-site learning

Number of credits: 3

Recommended semester: 10.

**Educational level: I.II.** 

**Prerequisites:** 

**Course requirements:** 

## **Learning outcomes:**

#### Class syllabus:

Congenital and metabolic diseases of the skeleton, inflammations and injuries of the skeleton, principles of rheumo-orthopaedics, diseases of the spine.

Surgery of the face, congenital malformations of the face and hands, lobe plastic surgery, suture materials.

#### **Recommended literature:**

D. C. Sabiston: Textbook of Surgery, Philadelphia, W.B. Saunders Company, 208 p.

Lawrence W. Way: Current Surgical Diagnosis And Treatment, 10th Ed., San Fransisco.,

Appleton - Lange 1993, 1196 p.

R. D. Liechty, R.T. Soper: Fundamentals of Surgery, Mosby Comp. 1989, 648p.

Lonnie R. Mercier: Practical Orthopedics, 2nd Ed., Year Book Medical Publishers, Inc., Chicago-London, 1987, 365 p.

Traumacare, William Odling Smee M.B.F.C.S., 1981

Leund M. S., McKroyd J.S.: Illustrated handbook of General Surgery, 1991

Bailey and Love's: Short practice of Surgery, Chapman and Hall: Medical, London, Glasgow,

New York, Tokyo, Melbourne, Madras. 22nd Ed., 1041 p.

Hamilton Bailey: Demonstration of Physical Signs in Clinical Surgery. Bristol, John Wright and Son Ltd.

Smith's General Urology, Edited by Tanagho E.A., Aninch, J.W., Appleton - Lange, San Mateo, California, 1995

## Languages necessary to complete the course:

## Notes:

#### Past grade distribution

Total number of evaluated students: 821

A	В	С	D	Е	FX
33,37	25,94	22,17	14,49	3,78	0,24

Lecturers: prof. MUDr. Viktor Matejčík, CSc., prof. MUDr. Juraj Šteňo, DrSc., doc. MUDr. Andrej Šteňo, PhD., MPH, MUDr. Andrey Švec, PhD., doc. MUDr. Martin Boháč, PhD., doc. MUDr. Jozef Fedeleš, CSc., MUDr. Pavol Macho, PhD., MUDr. Drahomír Palenčár, PhD., MUDr. Lukáš Šimko, PhD., MUDr. Iľja Chandoga, PhD., doc. MUDr. Boris Šteňo, PhD., doc. MUDr. Silvia Vajcziková, PhD., MUDr. Jozef Babala, PhD., MUDr. Miroslava Fuňáková, PhD., doc. MUDr. František Horn, PhD., MUDr. Pavol Omaník, PhD., MUDr. Martin Smrek, PhD., doc. MUDr. Ján Trnka, CSc., prof. MUDr. Milan Kokavec, PhD., MPH, MUDr. Miroslav Kilian, PhD., MUDr. Dana Dúbravová

**Last change:** 02.06.2015

University: Comenius University in Bratislava Faculty: Faculty of Medicine **Course ID:** Course title: LF.OTK1/L-S-VLa-025/19 Surgery 5 **Educational activities:** Type of activities: seminar / practicals **Number of hours:** per week: per level/semester: 48s / 240s Form of the course: on-site learning Number of credits: 13 Recommended semester: 11., 12.. **Educational level: I.II.** Prerequisites: LF.OTK1/L-S-VLa-024/20 - Surgery 4 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 219 В  $\mathbf{C}$ D E FX 82,19 8,68 5,94 0,0 3,2 0,0 Lecturers: prof. MUDr. Peter Labaš, CSc., prof. MUDr. Juraj Šteňo, DrSc., Dr.h.c. prof. MUDr. Ján Breza, DrSc., doc. MUDr. Milan Schnorrer, CSc., doc. MUDr. Andrej Šteňo, PhD., MPH, doc. MUDr. Marián Vician, CSc., MUDr. Pavol Mazalán, MUDr. Milan Oravský, PhD., MUDr.

Katarína Szabómihályová, MUDr. Ivan Majeský, PhD., MUDr. Peter Bukovčan, PhD., MUDr. Martin Novotný, PhD., MUDr. Andrey Švec, PhD., MUDr. Martin Dubovský, MUDr. Boris Hrbatý, PhD.

Last change:

Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Medicine Course ID: Course title: LF.ChK1/L-S-VLa-026/18 **Surgical Propedeutics Educational activities:** Type of activities: lecture / practicals **Number of hours:** per week: per level/semester: 30s / 40s Form of the course: on-site learning Number of credits: 4 **Recommended semester:** 6. Educational level: I.II. **Prerequisites:** LF.AÚ/L-S-VLa-003/17 - Anatomy 3 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 313 В  $\mathbf{C}$ E FX D 62,94 0.96 23,0 8,63 3,51 0.96 Lecturers: prof. MUDr. Peter Labaš, CSc., doc. MUDr. Marek Čambal, PhD., doc. MUDr. Milan Schnorrer, CSc., doc. MUDr. Marián Vician, CSc., MUDr. Boris Hrbatý, PhD., MUDr. Richard Reis, PhD., MUDr. Ing. Andrea Bolgáčová, doc. MUDr. Juraj Fillo, CSc., doc. MUDr.

Lecturers: prof. MUDr. Peter Labaš, CSc., doc. MUDr. Marek Čambal, PhD., doc. MUDr. Milan Schnorrer, CSc., doc. MUDr. Marián Vician, CSc., MUDr. Boris Hrbatý, PhD., MUDr. Richard Reis, PhD., MUDr. Ing. Andrea Bolgáčová, doc. MUDr. Juraj Fillo, CSc., doc. MUDr. Luděk Vrtík, CSc., MUDr. Mária Zemanová, MUDr. Ľudovít Danihel, PhD., MUDr. Martin Kukučka, MUDr. Matúš Rajčok, PhD., MUDr. Jozef Babala, PhD., MUDr. Dana Dúbravová, MUDr. Miroslava Fuňáková, PhD., doc. MUDr. František Horn, PhD., MUDr. Pavol Omaník, PhD., MUDr. Martin Smrek, PhD., doc. MUDr. Ján Trnka, CSc., MUDr. Marianna Hajská, PhD., prof. MUDr. Ján Koller, CSc., doc. MUDr. Jozef Fedeleš, CSc., MUDr. Drahomír Palenčár, PhD., MUDr. Lukáš Šimko, PhD., doc. MUDr. Martin Boháč, PhD., MUDr. Peter Tisovský, PhD., MUDr. Martin Žabka, PhD., MUDr. Iľja Chandoga, PhD., MUDr. Miroslav Kilian, PhD., doc. MUDr. Boris Šteňo, PhD., doc. MUDr. Silvia Vajcziková, PhD.

Last change:

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.MÚ/L-S-VLa-157-4/19 Tropical Parasitology

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s
Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 8.

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

100% attendance at praticals

Pass 1 written Test (mimimum 75%)

Test Evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %,

Fx: 59 % and less

Final Exam: Defence of seminar thesis nor less then 10 pages, Theoretical part 2 questions.

# **Learning outcomes:**

Knowledge: The student during his active participant of the lecture from Tropical Parasitology gains knowlege about the subject i.e. morphology, geografic distribution, epidemiology, pathogenesis, pathology, treatment, diagnosis, diagnostics and prevention of the causing agents including the ectoparasites as vectors of viruses, bacterias, protoza and helminths.

Skills: The student orientates specially to the geografic distribution of the tropical parasitic causative agents, rapidly can explain and responds to imported parasitic diseases, their proper therapy and preventive mesures; during 4 hours of obligatory practical excercises learn basic diagnostic of causative agents of tropical parasitic diseases t.i. morphology, use of rapid diagnostic methids for detection of antigen of the parasites, serological methods and their interpretation

## Class syllabus:

Breaf sketch of the subject: Introduction to Tropical Parasitology, Interuction between parasite and host, adaptation to parasitism, Biological cycle, clinical signs, diagnostics, epidemiology, treatment, prevention and control, Intestinal parasitic diseases, Blood and Tissue tropical protozoic diseases, Blood and Tissue tropical helminthic diseases, Parasitic arthropoda, Antiparasitic drugs, Possibilities of laboratory diagnostics of parasitic diseases

### **Recommended literature:**

Jíra J, Lékařská protozoologie. Praha, Galén, 2009. 567. ISBN 978-80-7262-381-5.

Volf P, Horák P. et al, Parazity a jejich biológie. Triton, 2007, 318. ISBN 8073870089.

Gordon C Cook and Alimuddin I Zumla (Eds.). Manson's tropical diseases. 22nd ed W.B.

Saunders, LTD, London, 2009, 1830. ISBN 9781416044703 (vybrané kapitoly).

Guerrant RL, Walker DH, Weller PF, Tropical Infectious Diseases. Second Edition, Vol 2. Elsever 2011. ISBN. 13: 978-0702039355; ISBN 10: 0702039357.

Totková, A.; Klobušický, M.; Valent, M. Lekárska parazitológia. Martin : Osveta, 2008. 400 s. ISBN 978-80-8063-263-2.												
Languages necessary to complete the course:  Notes:  Past grade distribution  Total number of evaluated students: 3												
							A	В	С	D	Е	FX
							0,0	0,0	66,67	0,0	0,0	33,33
Lecturers: doc.	RNDr. Nasir Ah	mad Jalili, CSc.,	MPH	•	•							
Last change: 10	0.03.2020											

University: Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title:

LF.MÚ/L-S-VLa-157-5/19 Tropical Parasitology

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: per level/semester: 24s
Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level: I.II.** 

# **Prerequisites:**

#### **Course requirements:**

100% attendance at praticals

Pass 1 written Test (mimimum 75%)

Test Evaluation: A: 91 - 100 %, B: 81 – 99 %, C: 73 – 80 %, D: 66 – 72 %, E: 60 – 65 %,

Fx: 59 % and less

Final Exam: Defence of seminar thesis nor less then 10 pages, Theoretical part 2 questions.

# **Learning outcomes:**

Knowledge: The student during his active participant of the lecture from Tropical Parasitology gains knowlege about the subject i.e. morphology, geografic distribution, epidemiology, pathogenesis, pathology, treatment, diagnosis, diagnostics and prevention of the causing agents including the ectoparasites as vectors of viruses, bacterias, protoza and helminths.

Skills: The student orientates specially to the geografic distribution of the tropical parasitic causative agents, rapidly can explain and responds to imported parasitic diseases, their proper therapy and preventive mesures; during 4 hours of obligatory practical excercises learn basic diagnostic of causative agents of tropical parasitic diseases t.i. morphology, use of rapid diagnostic methids for detection of antigen of the parasites, serological methods and their interpretation

## Class syllabus:

Breaf sketch of the subject: Introduction to Tropical Parasitology, Interuction between parasite and host, adaptation to parasitism, Biological cycle, clinical signs, diagnostics, epidemiology, treatment, prevention and control, Intestinal parasitic diseases, Blood and Tissue tropical protozoic diseases, Blood and Tissue tropical helminthic diseases, Parasitic arthropoda, Antiparasitic drugs, Possibilities of laboratory diagnostics of parasitic diseases

### **Recommended literature:**

Jíra J, Lékařská protozoologie. Praha, Galén, 2009. 567. ISBN 978-80-7262-381-5.

Volf P, Horák P. et al, Parazity a jejich biológie. Triton, 2007, 318. ISBN 8073870089.

Gordon C Cook and Alimuddin I Zumla (Eds.). Manson's tropical diseases. 22nd ed W.B.

Saunders, LTD, London, 2009, 1830. ISBN 9781416044703 (vybrané kapitoly).

Guerrant RL, Walker DH, Weller PF, Tropical Infectious Diseases. Second Edition, Vol 2. Elsever 2011. ISBN. 13: 978-0702039355; ISBN 10: 0702039357.

Languages nece	essary to comple	te the course:			
Notes:					
Past grade distr Total number of	ribution evaluated studer	nts: 1			
A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: doc.	RNDr. Nasir Ahı	nad Jalili, CSc.,	MPH	l	
Last change: 10	0.03.2020				
Approved by:		,			

**University:** Comenius University in Bratislava

Faculty: Faculty of Medicine

Course ID: Course title: Urgent Medicine

**Educational activities:** 

Type of activities: lecture / practicals

**Number of hours:** 

per week: per level/semester: 12s / 12s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 10.

**Educational level: I.II.** 

## **Prerequisites:**

## **Course requirements:**

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.

## **Learning outcomes:**

#### KNOWLEDGE:

Urgent medicine shall provide teoretical 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.

#### SKILLS:

To handle advanced life support, securing access to airways via intubation, laryngeal mask, laryngeal tubus. To handle intraoseal access to blood circulation, fractures stabilization, stopping a massive bleeding. Using of protective equipment against military attacks.

## Class syllabus:

Diagnostics and differencial diagnostics of the most serious conditions in pre-hospital care, treatment of serious injuries and transport management. Organization and practical realization of profesional health care activities within urgent medicine and medicine of disasters. Integrated rescue system. Possible types of injuries and diseases in case of disasters and mass accidents. Military medicine – health care organization during war and health care system in case of usage of weapons of mass destruction.

#### **Recommended literature:**

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

## Languages necessary to complete the course:

#### Notes:

Past grade distribution							
Total number of evaluated students: 224							
A	В	С	D	Е	FX		
13,39	17,41	19,64	24,55	25,0	0,0		

**Lecturers:** prof. MUDr. Oto Masár, CSc., PhDr. Hana Belejová, PhD., PhDr. Dušan Sysel, PhD., MUDr. Teodor Bachleda, PhD., MBA

**Last change:** 10.03.2020