# **Course descriptions**

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#### STATE EXAM DESCRIPTION

Academic year: 2024/2025

University: Comenius University Bratislava

Faculty: Jessenius Faculty of Medicine in Martin

Course ID: Course title:

JLF/3-NaPF-005/22 Dissertation Defense

Number of credits: 30

**Educational level:** III.

## **Course requirements:**

- obtaining at least 210 credits (in a 4-year full-time and 5-year external study)
- submission of an application for a state examination permit defense of the dissertation no later than 4 months before the date of completion of the standard length of study
- the basic condition for accepting the application for permission for the dissertation defense is publishing activity in the following scope:
- the doctoral student is the first author in one publication in extenso in a journal with IF> 0.5 and the author or co-author of at least two other scientific works in extenso in internationally recognized journals registered in internationally accepted databases, such as Web of Science, Medline or SCOPUS as the basic conditions for admission

#### **Learning outcomes:**

- the graduate of the field has mastered the principles and methodology of scientific work, from the ability to orient in the latest knowledge of the field, through the scientific formulation of the problem, assessment of the ethical side of scientific work, planning and implementation of research, scientific processing of obtained data, their interpretation to their presentation, including in international fora, and possible proposals for their application in practice.
- the graduate of the subject Normal and Pathological Physiology 2 has the ability to work independently scientifically and bring their own solutions to problems in the field. He has the ability to contribute to the development of this field through scientific and pedagogical work.

#### Class syllabus:

- scientific research of a current problem in the field or a multidisciplinary problem with a focus on normal and pathological physiology
- mastering the principles and methodology of scientific experimental work or work in physiological-clinical research up to the preparation of the text of a scientific publication in cooperation with the trainer in the form in extenso, especially in English
- publishing and lecturing activities and active participation in scientific events
- pedagogical activity (max. 4 hours per week / year = 208 hours / year = 104 hours / semester) only for full-time form

## State exam syllabus:

#### **Recommended literature:**

Javorka K. a kol. Lekárska fyziológia: učebnica pre lekárske fakulty: 1. a 2. diel, Martin: Vydavateľstvo Osveta, 2021. 773 s., ISBN 978-80-8063-496-4

Javorka K. a kol. Variabilita frekvencie srdca. Mechanizmy, hodnotenie, klinické využitie.

Martin: Osveta, 2008. 204 s. ISBN 978-80-8063-269-4

Čalkovská A. a kol. Pľúcny surfaktant – z laboratória k pacientovi. Martin: Osveta, 2013, 222 s., ISBN 978-80-8063-401-8

Nečas E. a kol.: Obecná patologická fyziologie, UK Praha, Karolinum 2021, 312 s. ISBN 978-80-2464-633-6

Nečas E. a kol.: Patologická fyziologie orgánových systémů – Část I, UK Praha, Karolinum 2009, 379 s. ISBN 978-80-2461-711-4

Nečas E. a kol.: Patologická fyziologie orgánových systémů – Část II, UK Praha, Karolinum 2009, 396 s. ISBN 978-80-2461-712-1

Hulín I. a kol. Patofyziológia. Bratislava: SAP, 2009. 1288 s. ISBN 80-89104-05-3

Hammer GD, McPhee SJ. Pathophysiology of Disease. An Introduction to Clinical Medicine. McGraw-Hill, 2018. 832 s. ISBN 978-1-26-002650-4

## Languages necessary to complete the course:

Slovak language / English language

**Last change:** 21.08.2023

Approved by: prof. MUDr. Andrea Čalkovská, DrSc., prof. MUDr. Michal Javorka, PhD., prof.

MUDr. Renata Péčová, PhD., MPH

#### STATE EXAM DESCRIPTION

Academic year: 2024/2025

University: Comenius University Bratislava

Faculty: Jessenius Faculty of Medicine in Martin

Course ID: Course title:

JLF/3-NaPF-004/22 Dissertation Examination

Number of credits: 20

**Educational level:** III.

## **Course requirements:**

- obtaining at least 60 credits, including 20 credits for mandatory courses of the Methodology of Scientific Work, Introductory of Statistical Analysis and Examination in a Foreign / World Language as a condition for granting consent to take a dissertation exam (DE)
- registration for DE within 24 months from the beginning of the study (in a 4-year full-time study)
- registration for DE within 30 months from the beginning of the study (in a 5-year external study)
- elaboration of a written part for the dissertation exam
- successful answering of 2 theoretical questions from the field of Normal and pathological physiology and presentation of the basic theses of the written part of the dissertation exam

## **Learning outcomes:**

- graduate of the course Normal and Pathological Physiology 1 has deep theoretical knowledge based on the current state of scientific knowledge in the field, masters scientific methods of living nature research with an orientation on the study of human body functions, knowledge of adaptation and regulatory mechanisms as well as mechanisms of human diseases
- masters and further develops methods for evaluating the functions of individual bodies and systems

## Class syllabus:

- study of modern knowledge of medical physiology and acquisition of comprehensive and indepth knowledge of human body activities, adaptive, regulatory and integration functions, from the molecular level to the whole organism in interaction with society and nature environmental factors
- clarification of the nature and interrelationships of events in the human body
- mastering the correct interpretation of the results of laboratory methods related to the problem, mastering the methodology of scientific work
- gaining deep knowledge of the functions of all parts of the body, at all vertical levels up to the molecular level with the ability to integrate knowledge

## State exam syllabus:

#### Recommended literature:

Javorka K. a kol. Lekárska fyziológia: učebnica pre lekárske fakulty: 1. a 2. diel, Martin: Vydavateľstvo Osveta, 2021. 773 s., ISBN 978-80-8063-496-4

Javorka K. a kol. Variabilita frekvencie srdca. Mechanizmy, hodnotenie, klinické využitie.

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Nečas E. a kol.: Obecná patologická fyziologie, UK Praha, Karolinum 2021, 312 s. ISBN 978-80-2464-633-6

Nečas E. a kol.: Patologická fyziologie orgánových systémů – Část I, UK Praha, Karolinum 2009, 379 s. ISBN 978-80-2461-711-4

Nečas E. a kol.: Patologická fyziologie orgánových systémů – Část II, UK Praha, Karolinum 2009, 396 s. ISBN 978-80-2461-712-1

Hulín I. a kol. Patofyziológia. Bratislava: SAP, 2009. 1288 s. ISBN 80-89104-05-3

Hammer GD, McPhee SJ. Pathophysiology of Disease. An Introduction to Clinical Medicine. McGraw-Hill, 2018. 832 s. ISBN 978-1-26-002650-4

## Languages necessary to complete the course:

Slovak language / English language

**Last change:** 10.08.2023

Approved by: prof. MUDr. Andrea Čalkovská, DrSc., prof. MUDr. Michal Javorka, PhD., prof.

MUDr. Renata Péčová, PhD., MPH