

REQUIREMENTS (Faculty of Medicine)

Semmelweis University	
Faculty of Medicine	Department of Physiology
Name of subject: Medical Physiology II.	
Type of subject: Compulsory subject	
Subject code: AOKELT466_2A	
Credit Points: 10	
Head of the Department: Dr. László Hunyady, Full Professor	
Course Director: Dr. Péter Várnai, Full Professor	
Tutor: Dr. András Balla	
Year: 2019/2020	
Aim of Medical Physiology course: The goal of Medical Physiology course is to give the students the understanding of the concepts and principles of medical physiology. The lectures provide the information base while the seminars and practices provide the student with an opportunity to assimilate and integrate the material. Appropriate clinical perspectives are presented throughout the course.	
Schedule of the subject: <ol style="list-style-type: none">1. Haematopoiesis. Haemostasis, overview of immune system. Principles of the innate immunity.2. Humoral immunity. Cellular immunity. Regulation of immune response, blood groups3. Endocrine regulations. The hypothalamo-adenohypophyseal system; growth hormone, somatomedins.4. Function of the adrenal cortex. Function of the thyroid gland.5. Hormonal regulation of intermedier metabolism.6. Calcium metabolism, bone tissue, growth. Function of the reproductive system: endocrinology of the sexual differentiation and development.7. Function of the reproductive system: male sexual function; female sexual function; endocrinology of pregnancy, parturition, and lactation.8. Introduction to neurophysiology. Physiology of nerve & glia cells.9. Sensory functions.10. Physiology of hearing and equilibrium.11. Physiology of vision.12. Motor functions.13. Integration of autonomic responses.14. Electroencephalogram (EEG); sleep phenomena. Learning and memory. Regulation of behavioral mechanisms, motivation; emotion.	

Practices:

- Studies on circulatory reactions of a virtual rat
- Circulatory and respiratory reflexes in rabbit (Demonstration, Practice)
- Smooth muscle of rabbit small intestine
- Human pulmonary function tests - Spirometry
- Measurement of cardiac output in rat
- Pulse wave in human
- Oral glucose tolerance test (OGTT)
- Human pulmonary function tests - Body plethysmography
- Electrooculography (EOG) and investigation of the vestibular system
- Spiroergometry
- Human visual physiology
- Investigation of reflexes
- Practice for lab exam. Lab exam

Attendance at classes: The lecture hours per week are 6; the practice hours per week are 4.5. The attendance of a minimum of 75% of practices (including seminars) is necessary for the end-term signature.

Absences:

No more than three absences from practices are allowed for any reason; otherwise the semester will not be credited. Missed sessions must be reported to the teacher the week after. There are no extra practices. Absence from the exam must be certified at the Head of the Department or Course Director within 3 working days.

Obtaining signatures:

The attendance of a minimum of 75% of practices (including seminars) is necessary for the end-term signature. Students must write a lab report for each practice using the Practical Book. The Practical Book should be signed by the teacher not later than one week after the practice. Participation in the practices is compulsory. No more than three absences from practices are allowed for any reason; otherwise the semester will not be credited.

Final exams

In the examination period the students have to give final exam in the second semester. Participation in the final exam requires the completed “Anatomy, Cell, Histology and Embryology III” course with a successful exam.

Type and grading of exams:

The final exam consists of practical, written and oral part. The practical part (lab exam) takes place in the last week of the second semester. Passing the lab exam is not a prerequisite to participate on the final exam, but failed lab exam is taken into account in grading the final exam as fail (1) partial grade. The written and oral part of the final exam is held on the same day. The oral part consists of two theoretical questions (I-II). Failed (1) theoretical question results in an overall failed (1) final exam. The mathematical average of three or four partial grades (written exam grade, two oral exam grades, and lab exam grade) gives the grade of the final exam.

Lists of the theoretical questions are listed in the webpage in the Department of Physiology. The following rules will be enforced during the exams: electronic devices must be kept in the baggage; baggage and overcoats should be placed next to the wall of the lecture halls; any form of communication is disallowed; students not complying with these rules will be disqualified immediately.

Requirements of the exam:

Final exam: material of the Medical Physiology I. and Medical Physiology II.
Participation in the final exam requires the completed “Anatomy, Cell, Histology and Embryology III” course with a successful exam.

Registration for the exam:

Registration for the exam must be recorded through the NEPTUN system.

Modification of the registration for the exam:

Modification in the registration must be recorded through the NEPTUN system not later than 48 hours before the start of the exam.

Absences from the exams:

Failing to certify absence or denying it cause registering “absence” = “nem jelent meg” in the lecture book and/or in the NEPTUN system.

List of textbooks:

Textbook: Koeppen-Bruce M- Stanton- Bruce A: Berne & Levy Physiology (7th edition). 2017. ISBN: 9780323393942

Practice book: Practices in Medical Physiology (Edited by: Péter Enyedi and Levente Kiss). 2017. ISBN: 9789633314159.