PHYSIOLOGY 1/2

COURSE CONTENT


LECTURES


EDUCATIONAL OBJECTIVE:

Human physiology is the science of the mechanical, physical, and biochemical functions of humans, their organ systems, organs and the cells of which they are composed. This course is designed to provide students with an understanding of the function and regulation of the human body and physiological integration of the organ systems to maintain homeostasis. During the course you will examine human functions in a systematic fashion. The main objective in teaching this course is to ensure that you learn essential concepts and facts about human physiology, understand the major functions of organ systems in human, learn how the body strives for and achieves homeostasis, experience practical application of physiological principles. You need to learn how the healthy human body functions before you can learn in future classes how disease and injury impairs its function.

DESCRIPTION OF LEARNING OUTCOMES FOR THE COURSE IN RELATION TO FIELD AND MAJOR

LEARNING OUTCOMES:

Knowledge

W1 - Defines physiological processes in the human body. Knows the activities and mechanisms of regulation of all organs and systems of the human body. Describes water and electrolyte balance in biological systems; knows the physical laws describing the flow of liquid and factors influencing vascular resistance of blood flow; knows the basics stimulation and conduction in the nervous system and higher nervous functions, as well as the physiology of skeletal muscle and smooth muscle cells; describes and knows the functions of blood; knows the mechanism of action of hormones, and the consequences of hormonal regulation disorders. Knows the reproductive function and mechanism in women and men. Knows the mechanisms of aging. Knows the basic quantitative parameters describing the performance of individual systems and organs, including the normal range. Lists the most common clinical forms of individual systems diseases, metabolic diseases and disorders of fluid and electrolyte balance.

Skills

U1 - Is able to analyze physiological processes, indicate the relationship between the factors that disrupt equilibrium and changes in physiology and pathophysiology. Describes the changes in body functions in case of disruption of homeostasis, recognizes the valid and invalid parameters. Define an integrated body's response to physical activity, exposure to low and high temperature, loss of blood, water, sudden postural changes, the transition from sleep to wakefulness, exercise, stress. Performs simple tests and interpret basic physiological tests (spirometry, blood, urine creatinine clearance, interprets the basic physiological variables. Performs simple physiological experiments. Integrates basic physiology with developing clinical understanding as obtained during the lab classes.

Social competence

K1 - The student learns teamwork in carrying out research, development and analysis of results, solving simple clinical problems in the classroom. Preparation of reports and their critical discussion. Demonstrate a continuing commitment to excellence. Respect the principles of academic ethics.

BASIC LITERATURE

Kod ECTS: AAAB-CD-E_F

AAA – Subject area code in the ECTS system, BB – major number, C – 1 1 first-cycle (engineer’s degree or bachelor’s degree) studies, 2 – second-cycle studies, 3 – uniform master’s degree studies, 4 – third-cycle studies, 5 – postgraduate studies D – specialty number, E – course group, F – serial number of the course in the subset.
Kod ECTS: AAABB-CD-E_F


SUPPLEMENTARY LITERATURE

Berne & Levy "Physiology", Sixth edition

Name of the organizational unit offering the course:
Katedra Fizjologii Człowieka,

Person in charge of the course:
prof. dr hab. wet. Mariusz Majewski, prof.zw.,
dr Agnieszka Skowrońska,

Course coordinators:
prof. dr hab. wet. Mariusz Majewski, prof.zw.,
dr Agnieszka Skowrońska, , dr n. med. Ewa
Lepliarczyk, , dr hab. n. med. Agnieszka
Bossowska, prof. UWM

Notes:
Detailed description of the awarded ECTS points - part B

12148-3-A
ECTS: 7
YEAR: 2016Z

PHYSIOLOGY 1/2

The awarded number of ECTS points is composed of:

1. Contact hours with the academic teacher:
   - participation in: classes 50 h.
   - participation in: seminar 8 h.
   - participation in: lecture 24 h.
   - consultation 2 h.
   84 h.

2. Student's independent work:
   - preparation for lab classes 5 h.
   - preparation for seminar 10 h.
   - preparation for the test 25 h.
   - preparation for the final exam 50 h.
   90 h.

1 ECTS point = 25-30 h of the average student's work, number of ECTS points = 174 h: 25 h/ECTS = 6.96 ECTS on average: 7 ECTS
   - including the number of ECTS points for contact hours with direct participation of the academic teacher: 3.36 ECTS points,
   - including the number of ECTS points for hours completed in the form of the student's independent work: 3.64 ECTS points,