



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Physiology with elements of anatomy [S1IFar2>FzEA]

### Course

Field of study

Pharmaceutical Engineering

Year/Semester

1/1

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

30

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

0

### Number of credit points

3,00

### Coordinators

prof. dr hab. Marek Simon

### Lecturers

### Prerequisites

General knowledge of biology, chemistry, physics at the high school level.

### Course objective

Knowing the structure and functions of individual systems and organs of the human body together with introduction to the pathophysiology and pharmacology of selected diseases.

### Course-related learning outcomes

Knowledge:

1. Has knowledge of the basic conceptual categories in the field of intracorporeal homeostasis and mechanisms of its regulation. [K\_W9]
2. Understands the functioning of the basic regulatory systems of the human body - the system nervous and endocrine, explains the differences in their action. [K\_W5]
3. Knowing the structure and functions of individual systems and organs of the human body together with introduction to the pathophysiology and pharmacology of selected diseases. [K\_W1]

Skills:

1. He understands the literature on physiology and anatomy and uses anatomical nomenclature to

describe the condition health. [K\_U1]

2. Uses proper terminology and is able to discuss the heart function and the functioning of the circulatory system. [K\_U3]

3. He can prepare a description of the gas exchange in the lungs and the functioning of the system in Polish and in a foreign language respiratory. [K\_U5]

4. He can analyze and evaluate the functioning of the muscular system and knows the mechanisms responsible for free movements and maintaining body posture. [K\_U14]

5. Can prepare and present in the form of a presentation the function and role of the urinary system in maintenance intracorporeal homeostasis and the formation and importance of body fluids, secretions and excretions. [K\_U6]

6. Based on the literature, he knows the structure and functions of organs and cells of the immune system and principles of the immune response. [K\_U1]

7. Analyzes and describes the relationship between the organism and the environment. [K\_U21]

Social competences:

1. He is ready to critically assess his knowledge, draws and formulates conclusions from his own observations. [K\_K1]

2. Is ready to make independent decisions and can work in a group. [K\_K2]

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Development and discussion of a selected issue; analysis and solution of the problem situation; final exam.

### Programme content

The program includes the following topics:

1. Functions of individual systems and organs of the human body.

2. Issues concerning: life, health and disease, reactions, changes in structure and function in the course of selected diseases.

3. Regenerative possibilities of tissues.

4. Therapeutic effects of selected substances in the pathomechanism of selected disease entities.

### Course topics

Lectures will cover issues related to the functions of individual systems and organs of the human body, taking into account age groups. Issues will be discussed concerning: life, health and disease, reactions, changes in structure and function in the course of selected diseases. The regenerative possibilities of tissues found in particular organs will be discussed. The presented issues will be the basis for understanding the therapeutic impact of the selected medicinal substances in the pathomechanism of selected disease entities.

### Teaching methods

Classes will be conducted in the form of lectures in the form of a multimedia presentation.

### Bibliography

Basic:

„Anatomia i fizjologia człowieka” Michajlik A., Ramotowski W., PZWL 2013

„Zarys anatomii człowieka” Wozniacki R., A-Z

„Anatomia i fizjologia człowieka” Gołąb K., TUR Łódź 1997

Additional:

„Anatomia człowieka. Podręcznik i atlas dla studentów licencjatów medycznych” ;

Suder E., Brużewicz S., Wyd. Med. Wrocław 2008

### Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	38	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	37	1,50