



48SJ-PBL58  
2025Z  
ECTS: 0.50

## Course syllabus – part A Problem Based Learning (PBL) 5

### SUBJECT MATTER CONTENT:

#### Classes

Case analysis: Case 1. Part 1 Endocrine diseases, Part 2 pathophysiology, clinical symptoms, laboratory and imaging diagnostics. Case 2. Part 1 Lung diseases, part 2 symptoms, pathophysiology, laboratory and imaging diagnostics. Differential diagnosis and management. Case 3. Part 1. Infectious diseases of the cardiovascular system, part 2. pathophysiology, clinical symptoms, laboratory diagnostics. Case 4. Part 1 Acute conditions in cardiology, part 2 - pathophysiology, clinical symptoms, laboratory and imaging diagnostics. Differential diagnosis and management. Case 5. Part 1 Arterial hypertension with complications, part 2 symptoms, pathophysiology, laboratory and imaging diagnostics. Differential diagnosis and management. Case 6. Part 1. Specific and nonspecific inflammatory diseases of the digestive tract, Part 2. Pathophysiology, clinical symptoms

#### TEACHING OBJECTIVE:

The student knows, understands and applies the rules of problem classes and group cooperation. Understands the role and action in interdisciplinary team. He tries to find out the causes, pathomechanism and symptoms of diseases mainly based on basic laboratory tests as well as symptoms and signs in different stages of the disease. Knows and understands the clinical significance of the basic disorders of homeostasis organism, etc. Analyzes the latest literature and professional literature based on current medical databases.

**DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY:**

### Symbols for outcomes related to the discipline:

#### Symbols for outcomes related to the field of study:

K.2.+, K.5.+, KA7\_KR2+, E.U16.+, E.U24.+, B.U11.+, M/NM\_B.W1.+, M/NM\_B.W2.+, M/NM\_B.W21.+, M/NM\_D.W18.+, M/NM\_E.W7.+

#### LEARNING OUTCOMES (Knowledge, Skills, Social competence):

##### W1

The student knows and understands the water and electrolyte management in biological systems

#### Legal acts specifying learning outcomes:

672/2020 (Medicine),

Status of the course: None

Group of courses: None

Discipline: Medicine

Classes:

Classes (15 h)

Step: Kierunek lekarski czwarty rok semestr siódmy (oferta w jęz. angielskim dla obcokrajowców)

Program: Medicine

Form of studies: full-time

Level of studies: uniform master's studies

**Introductory subject:** anatomy, physiology, biochemistry, pathophysiology, pathology, the basics of internal diseases and pharmacology and clinical psychology

**Prerequisites:** well-established knowledge in the field of anatomy, physiology, biochemistry, pathophysiology, pathology, basics of pharmacology and internal medicine

#### Coordinators:

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<b><u>W2</u></b>	The student knows and understands the acid-base balance and the buffer action mechanism, and their significance in systemic homeostasis
<b><u>W3</u></b>	The student knows and understands the relationship between factors disturbing the balance of the biological processes, and physiological and pathophysiological changes
<b><u>W4</u></b>	The student knows and understands the rules of team work
<b><u>W5</u></b>	<p>The student knows and understandsthe causes, symptoms, principles of diagnosing and treating the most frequently encountered internal diseases of adults and their complications:</p> <ol style="list-style-type: none"> <li>1) cardiovascular diseases, including ischemic heart disease, heart defects, diseases of the endocardium, myocardium, and pericardium, heart insufficiency (acute and chronic), arterial and venous diseases, hypertension – primary and secondary, pulmonary hypertension,</li> <li>2) respiratory diseases, including airways diseases, chronic obstructive pulmonary disease, bronchial asthma, bronchiectasis, cystic fibrosis, respiratory tract infections, interstitial respiratory diseases, pleural diseases, mediastinum diseases, obstructive sleep apnoea, respiratory distress (acute and chronic), bronchogenic carcinomas,</li> <li>3) gastrointestinal diseases, including oral diseases, oesophageal diseases, stomach and duodenal diseases, intestinal diseases, pancreatic diseases, liver diseases, biliary tract and gallbladder diseases,</li> <li>4) endocrine system diseases, including the hypothalamus and pituitary gland diseases, thyroid and parathyroid diseases, adrenal cortex and medulla diseases, ovary and testicle diseases and neuroendocrine tumours, polyglandular syndromes, diabetes of various types, and the metabolic syndrome – hypoglycaemia, obesity, dyslipidaemia,</li> <li>5) kidney and urinary tract diseases, including acute and chronic kidney failures, glomerulus and interstitial kidney diseases, renal cysts, kidney stones, urinary tract infections, urinary tract carcinomas, especially of the urinary bladder and kidneys,</li> <li>6) diseases of the haematopoietic system, including bone marrow aplasia, anaemia, granulocytopaenia and agranulocytosis, thrombocytopaenia, acute leukaemias, myeloproliferative and myeloproliferative-myelodysplastic neoplasms, myelodysplastic syndromes, neoplasms of mature lymphocytes B and T, haemorrhagic diatheses, thrombophilia, immediate life-threatening conditions in haematology, blood disorders in diseases of other organs,</li> <li>7) rheumatic diseases, including systemic connective tissue diseases, systemic vasculitis, spondyloarthropathies, bone metabolic diseases, especially osteoporosis and osteoarthritis, gout,</li> <li>8) allergic diseases, including anaphylaxis and anaphylactic shock, and angioedema,</li> <li>9) water-and-electrolyte and acid-base disorders: dehydrations, excessive water retention, electrolyte management disorders, acidosis and alkalosis</li> </ol>
<b><u>U1</u></b>	The student can plan diagnostic, therapeutic and preventive procedures;
<b><u>U2</u></b>	The student is able to interpret laboratory test results and identify the causes of deviations from the norm;

<u><b>U3</b></u>	The student can select the appropriate statistical tests, conduct basic statistical analyses, employ appropriate methods to present the results, interpret the results of meta-analysis, and carry out a survival probability analysis
<u><b>K1</b></u>	The student is ready to be guided by the good of the patient
<u><b>K2</b></u>	The student is ready to see and recognize his own limitations and self-assess educational deficits and needs
<u><b>K3</b></u>	The student is ready to inspire, be a leader and cooperate in an interdisciplinary team, in particular during PBL (Problem Based Learning) classes

**TEACHING FORMS AND METHODS:**

Classes-['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'W3', 'U3', 'K3', 'W4', 'W5']-Practical exercises - active discussion of the so-called brainstorming with problem-based learning, moderating discussions, choosing the group leader and his assistants in solving a scientific problem, activating the participants of the classes through clinical tasks

**FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:**

Classes-(Evaluation of the work and cooperation in the group)-['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'W3', 'U3', 'K3', 'W4', 'W5']-attendance at classes, active participation in discussions, knowledge of basic issues and reliability as well as professionalism in proceedings and communication with other participants of the discussion

**Literature:**

1. ***Interna Szczeklika***, Red. Andrzej Szczeklik, Medycyna Praktyczna, 2024, Strony: , Tom: (literatura podstawowa)
2. ***McMaster Internal Medicine***, Roman Jaeschke, Piotr Gajewski, and Paul M. O'Byrne, McMaster, 2022, Strony: , Tom: (literatura podstawowa)
3. <https://empendium.com> (literatura uzupełniająca)



**Detailed description of ECTS credits awarded - part B**  
**Problem Based Learning (PBL) 5**

**48SJ-PBL58**

**2025Z**

**ECTS: 0.50**

The number of ECTS credits awarded consists of:

1. Contact hours with the academic teacher:

- participation in: Classes	15 h
- consultation	2 h
Total:	17 h

2. Independent work of a student:

Total: 0 h

Total (contact hours + independent work of a student): 17 h

1 ECTS credit = 25-30 h of an average student's work, number of ECTS,  
ECTS Points = 17 h : 25 h/ECTS = **0.50 ECTS**

Average: 0.50 ECTS

- including the number of ECTS credits for contact hours with the direct participation of an academic teacher	0.50 ECTS
- including the number of ECTS credits for hours of independent work of a student	0.00 ECTS