CURRICULUM OF STUDIES

Study cycle commencing in the academic year 2024/2025

# GENERAL INFORMATION

1. **Name of the unit leading the course:** Faculty of Medicine with the Division of Dentistry and Division of Medical Education in English
2. **Name of the course of study:** **MEDICAL**
3. **Field and scientific discipline(s)** (with an indication of the percentage share of disciplines and the leading discipline): field of medical and health sciences, discipline: medical sciences 100%.
4. **Form of study:** full-time
5. **Level of studies:** uniform master’s studies
6. **Study profile:** general academic
7. **Number of semesters:** 12
8. **Total number of ECTS points required to complete the studies:** 360
9. **Total number of class hours: 5163 + 600 practice**

# ADDITIONAL INFORMATION

1. Connection between the curriculum of studies and the university's mission and its strategy:  
   The main aim of the Faculty in the didactic area is to improve the quality of the didactic process with an emphasis on the introduction of modern methods and tools using, for instance, IT-based solutions, the expansion of the didactic offer and the modernisation of the didactic infrastructure.  
   The aims of the didactic process involve:

* transferring knowledge as effectively as possible,
* teaching the students to use their knowledge in practice,
* forming attitudes (social, ethical, legal),
* providing students with opportunities for scientific development,
* ensuring access to the latest literature and journals, both domestic and foreign, as well as electronic databases,
* introducing modern methods of checking students' knowledge in classes
* broadening the educational offer by working to establish new courses
* participation in the European system of higher education through international exchange and cooperation in the process of educating students, which would require enriching the offer through bilateral and multilateral cooperation agreements with European universities;
* ensuring the highest quality in the organisation of foreign student practices,  
   improving accessibility to the university's IT network ( student dormitories, library, deans' offices and terminals in places available for students to use with their electronic ID cards),
* further improving the quality of education and its monitoring, for example through the popularisation of an electronic student survey.

1. Conclusions from the analysis of the correspondence of learning outcomes with the needs of the labour market and conclusions from the analysis of the results of the career monitoring of students and graduates, PhD applicants and PhD awardees.

The assumed learning outcomes are fully consistent with the needs of the physicians’ labour market. They cover the entire spectrum of effects defined in the binding educational standard preparing for the medical profession. Moreover, the compatibility of the assumed learning outcomes with the needs of the socio-economic environment and the labour market is ensured through the active participation of representatives of employers and graduates in the improvement and updating of the curriculum of studies at the medical faculty. Annual data obtained by the Faculty Team for Providing and Improving Quality of Education confirm the growing demand of the labour market for graduates of this faculty. Many of them also pursue a degree at the Doctoral School. Last year, 3 graduates of the medical faculty of the year 2023 were awarded doctoral degrees. It should be emphasised that the curriculum of studies in the medical faculty and its implementation at the MUB have met all the educational quality indicators required by the Polish Accreditation Commission.

Analysis of phenomena related to the organisation of health care and the opinions of employers indicate a rising demand for professional medical staff. The reports available in the national system for monitoring the Economic Fate of Graduates, concerning 2021 graduates of the medical faculty conducted at the MUB, indicate a short time to find full-time employment (3.91-4.56 months) and a low (0.71-1.46%) unemployment rate in the first year after graduation. After graduation, some graduates train at the Doctoral School.

The set of learning outcomes is attached as Appendix 1 to the curriculum of study.

# QUANTITATIVE INDICATORS

1. ECTS credits as a percentage of the total number of ECTS credits specified in the study programme for each discipline: 100%.
2. Number of ECTS credits a student is required to obtain in classes with direct participation of academic teachers or other instructors: 288
3. Number of ECTS credits for practical skills (for practical profiles): -
4. Number of ECTS credits for courses related to the scientific activity performed at the university in the discipline or disciplines to which the field of study is allocated, including students' participation in courses which prepare for or involve them in scientific activity (for general academic profiles): 321 (+20 practices)
5. Number of ECTS credits a student is required to obtain in the field of the humanities or social sciences: 18
6. Number of ECTS credits a student is required to obtain in foreign language courses: 7
7. The percentage of ECTS credits in elective modules/classes: 17 ECTS points
8. Number of hours of classes in occupational safety and health: 4

# CLASSES OR GROUPS OF CLASSES WITH THE ALLOCATION OF LEARNING OUTCOMES AND THE PROGRAMME CONTENTS ENSURING THE ACHIEVEMENT OF THESE OUTCOMES

The programme contents, forms and methods of education that ensure the achievement of the indicated effects, as well as the ways of assessing the student's achievement of the learning outcomes are defined in the syllabuses of the subjects/modules of classes.

## SUBJECT/MODULE: anatomy and integrated anatomy

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| AW2. knows the structure of the human body in a topographical and functional approach including the topographical relationships between the different organs, including the anatomical, histological and embryological nomenclature. | Summarising methods:  written final exam (test and open questions), and practical - identification of individual anatomical structures.  Formative methods:   * Credits for individual exercises, * credits (tests) of individual thematic blocks |
| AU3.explains the anatomical basis of the physical examination;  AU4. deduces relationships between anatomical structures on the basis of anatomical diagnostic examinations, in particular of radiology | Summarising methods:  written final exam  (test and open questions), and practical - identification of individual anatomical structures.  Formative methods:   * Credit for individual exercises, * credits ( tests) of individual thematic blocks |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs K7. uses objective sources of information K8. formulates conclusions from own measurements or observations K10. forms opinions on various aspects of professional activity | Continuous assessment by the teacher |

## SUBJECT/MODULE: Biophysics

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| BW4. knows the physical laws describing fluid flow and the factors affecting vascular resistance to blood flow BW5. knows natural and artificial sources of ionizing radiation and their interaction with matter BW6. knows the physio-chemical non-invasive and molecular basis of sensory nervous system  BW7. knows the physical basis of imaging methods BW8. knows the physical basis of selected therapeutic techniques,  BW26. knows the principles of conducting scientific research, development of medicine CW41. knows the basics of radiotherapy | Summarising methods:  - written exam - mixed test (closed and open questions).  Formative methods:  - observation of student work - preliminary test - evaluation of activity during classes - credit for individual activities - evaluation of preparation for classes - discussion during classes - partial credit - preliminary credits |
| BU1. uses knowledge of the physical laws to explain the effects of external factors such as temperature, acceleration, pressure, electromagnetic fields and ionising radiation on the human body BU2. is able to estimate the effects of ionising radiation dose on normal and pathologically altered tissues of the body and follow the principles of radiological protection; BU7. interprets numerical data on basic physiological variables; BU11. plans and does a scientific research then interprets its results and formulates conclusions. | Summarising methods:  -accomplishment of a specific task  -project, presentation  Formative methods:  - observation of student work - preliminary test - evaluation of activity during classes - completing individual activities - evaluation of preparation for classes - discussion during classes - partial credit - preliminary credits |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs K7. uses objective sources of information K10. forms opinions on various aspects of professional activity | Summarising methods:  - continuous assessment by the teacher (observation)  Formative methods:  - observation of student work - discussion during classes - feedback from colleagues |

## SUBJECT/MODULE: Histology, embryology and cell physiology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| AW1. knows the structure of the human body in the topographical and functional approach including topographical relations between individual organs, including anatomical, histological and embryological nomenclature AW2. knows cellular structures and their functional specialisations AW3. knows the microarchitecture of tissues, extracellular matrix and organs;  AW4. knows the stages of development of the human embryo, the structure and function of foetal membranes and placenta, the stages of development of individual organs and the influence of environmental factors on the development of the embryo and foetus (teratogenic) | Summarising methods, for instance:  - written exam - open questions and test questions - practical exam - practical test of knowledge of microscope preparations  Formative methods, for instance:  - observation of student work - evaluation of activity during classes - credit for individual activities (credit for correctly drawn preparations) - evaluation of preparation for classes  - (written or oral answer) - discussion during classes - partial credit (tests after a certain cycle of exercises) |
| AU1. operates an optical microscope, including the use of immersion AU2. recognises in microscopic images structures corresponding to organs, tissues, cells and cellular structures and describes and interprets their construction, as well as the relationship between structure and function. | Summarising methods, for instance:  - practical exam - practical knowledge of microscope preparations  Formative methods, for instance:  - observation of student work - evaluation of activity during classes - credit for individual activities (credit for correctly drawn specimens) - evaluation of the preparation for classes (paper test or oral answer) - discussion during classes - partial credit (tests after a certain cycle of exercises |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs K7. uses objective sources of information K8. formulates conclusions from their own measurements or observations K10. forms opinions on various aspects of the professional activity | Summarising methods, for instance:  -continuous assessment by the teacher (observation)  Formative methods, for instance:  - observation of student work - discussion during classes |

## SUBJECT/MODULE: Chemistry

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| BW1. describes water-electrolyte balance in biological systems  BW2. describes acid-base balance and the mechanism of buffers and their importance in [homeostatic equilibrium](https://www.diki.pl/slownik-angielskiego?q=homeostatic+equilibrium).  BW3. knows and understands the concepts of solubility, osmotic pressure, isotonia, colloidal solutions and Gibbs-Donnan equilibrium | Summarising methods:  - written final test  Formative methods:  - observation of student work  - evaluation of activity during classes  - evaluation of preparation for classes  - discussion during classes  -partial credits |
| BU3. is able to calculate the molar and percentage concentrations of compounds; calculates the concentrations of substances in iso-osmotic, single and multi-component solutions  BU5. determines the pH of a solution and the effect of changes in pH on inorganic and organic compounds | Summarising methods:  - accomplishment of a specific task  Formative methods:  - observation of student work  -evaluation of activity during classes  -completing individual activities  - discussion during classes  - partial credits |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information  K8. formulates conclusions from their own measurements or observations  K10. formulates opinions on various aspects of professional activity | Summarising methods:  - Continuous assessment by the teacher (observation)  Formative methods:  -observation of student work  - discussion during classes  - feedback from colleagues |

## SUBJECT/MODULE: Biochemistry

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| BW9. describes the formation of lipids and polysaccharides and their functions in cellular and extracellular structures;  BW10. characterises the I-, II-, III- and IV-order structures of proteins; knows the post-translational and functional modifications of proteins and their significance;  BW11. knows the functions of nucleotides in the cell, the I- and II-order structures of DNA and RNA and the structure of chromatin;  BW13. describes the basic catabolic and anabolic pathways, how they are regulated and the influence of genetic and environmental factors;  BW14. basic methods used in clinical pathology, including protein and nucleic acid electrophoresis | Summarising methods:  - descriptive written exam  Formative methods:  -observation of student work  -assessment of preparation for classes  - partial credits |
| BU4. calculates the solubility of inorganic compounds, identify the chemical basis of the solubility or lack of solubility of organic compounds and the practical significance for dietetics and therapeutics;  BU5. identifies the pH of a solution and the effect of pH changes on inorganic and organic compounds;  BU6. is able to predict the direction of biochemical processes depending on the energy level of cells;  B.U12. uses basic laboratory and molecular techniques. | Summarising methods:  - completing a specific task  Formative methods:  - observation of student work  - evaluation of activity during classes  - evaluation of individual activities  -assessment of the preparation for classes  - discussion during classes |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information  K8. formulates conclusions from their own measurements or observations  K10. formulates opinions on various aspects of professional activity | Summary methods:  - continuous assessment by the teacher  Formative methods:  - observation of student work  - discussion during classes |

## SUBJECT/MODULE: Information technology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| BW23. knows basic computer and biostatistical tools used in medicine  IW31. knows how to work with word processors, spreadsheets, presentation preparation applications and database programs  IW32. knows the basics of computer networks | Summarising methods: Final practical assessment in the form of work at a computer terminal;  Formative methods: observation of student work during exercises; assessment of ability to work independently |
| BU8. is able to use medical databases and interpret properly the information they contain to solve problems in basic and clinical sciences  IU17. has computer skills in text editing, graphics, presentation preparation, working with spreadsheets and the Internet and database software, including performing simple statistical analyses and graphical presentation of results | Summarising methods: Final practical assessment in the form of work at a computer terminal;  Formative methods: observation of student work during exercises; assessment of ability to work independently |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information  K8. formulates conclusions from their own measurements or observations | Summary methods:  - continuous assessment by the teacher (observation) |

## SUBJECT/MODULE: Medical first aid with elements of nursing

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| FW9. knows current guidelines for cardiopulmonary resuscitation of infants, children and adults  IW7. knows the causes, diagnosis and procedure of sudden cardiac arrest  IW8. knows the use of automatic defibrillators (AEDs).  IW9. knows the causes, diagnosis and treatment of acute respiratory failure.  IW10. knows the principles of first aid for certain life-threatening conditions (poisoning, burns, heat stroke, frostbite, bites, electric shock, bleeding and haemorrhage)  IW11. knows the principles of providing first aid in  choking and hanging  IW12. knows the principles of providing first aid for fractures and injuries.  IW13. knows the principles of assessing basic vital functions  IW14. knows the principles of care and nursing of the unconscious patient  IW15. knows the principles of providing vascular access to peripheral veins and applying dressings | Summarising methods:  Exercises - oral credit  Credit for classes - written test exam  Formative methods:  - Evaluation of the preparation for classes |
| EU3. is able to take medical history in a life and health emergency using the SAMPLE (S - Symptoms, A - Allergies, M - Medications, P - Past medical history, L - Last meal, E - Events prior to injury/illness);  EU34. knows how to use the following protocols (e.g. when transferring patient care, ordering or providing patient consultation):  1) ATMIST (A (Age), T (Time of injury), M (Mechanism of injury), I (Injury suspected), S (Symptoms/Signs), T (Treatment/Time));  2) RSVP/ISBAR (R (Reason - cause, why), S (Story - patient's story), V (Vital signs), P (Plan - patient's plan)/I (Introduction), S (Situation), B (Background), A (Assessment), R (Recommendation).  F.U4. is able to recognise the most common life-threatening conditions, including using various imaging techniques;  FU7. knows how to immobilise the cervical and thoracolumbar spine after injury  FU8. knows how to block external bleeding;  FU22. knows how to obtain information from team members, respecting their diverse opinions and specialist competencies, and take this information into account in the patient's diagnostic and therapeutic plan, and apply ATMIST, RSVP/ISBAR protocols.  IU2. knows how to perform cardiopulmonary resuscitation correctly in an out-of-hospital setting  IU3. knows how to operate an automatic defibrillator (AED)  IU4. knows how to give first aid in some life-threatening conditions (poisoning, burn, heat stroke, frostbite, bites, electrocution, bleeding and haemorrhage)  IU5. knows how to apply dressings, dress a wound, a fracture  IU6. knows how to perform basic patient care - positioning, physical therapy, blood pressure measurement | Summarising methods:  Practical exam  Formative methods:  - observation of student work  - evaluation of preparation for classes |
| K1. observes [patient confidentiality](https://www.diki.pl/slownik-angielskiego?q=obligation+of+keeping+patient+confidentiality) and the patient's rights  K2. is able to form and maintain a deep and respectful relation to the patient, as well as show understanding for world-view and cultural differences  K3. is guided by the welfare of the patient  K4. notices and recognises their own limitations and takes a self-assessment of deficits and learning needs  K5. acts towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes pro-health behaviour  K7. uses objective sources of information  K11. accepts responsibility connected with decisions made within the area of professional activity, including in terms of their own safety and the safety of others | Summarising methods:  Continuous assessment by the teacher  Summarising methods:  Observation of student work  Discussion during class  Peer feedback |

## SUBJECT/MODULE: Specialised English

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| DU5. analyses medical literature in English critically and draws conclusions  DU6. is able to communicate with the patient in one of the foreign languages at B2+ level of the Common European Framework of Reference for Languages  IU19. is able to describe a patient case using specialist terminology  IU20. is able to prepare and give a short presentation on professional topics | Summarising methods:  - written exam (as part of the final exam).  -project, presentation  Formative methods:  - observation of student work  - evaluation of activity during classes  - discussion during classes  - partial credit |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information | Summarising methods:  - Continuous assessment by the teacher(observation)  Formative methods:  -observation of student work  - discussion during classes  - feedback from colleagues |

## SUBJECT/MODULE: History of medicine

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| DW18. knows the history of medicine, features of modern medicine and the most important discoveries and achievements of the leading representatives of Polish and world medicine | Summarising methods:  - preparing a presentation  Formative methods:  -observation of student work  - evaluation of activity during classes  - discussion during classes |
| IU7. knows how to use historical knowledge in the evaluation of modern medicine;  IU8. knows how to predict the development of medicine  IU9. is able to recognise continuities of medical thought in terms of the progress of medical science and interdisciplinary links  IU10. is able to recognise factors influencing the development of medicine | Summarising methods:  - preparing a presentation  Formative methods:  - observation of student work  - evaluation of activity during classes  - evaluation of preparation for classes  - discussion during classes |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information | Summarising methods:  - Teacher continuous assessment (observation)  Formative methods:  - observation of student work  -discussion during classes |

## SUBJECT/MODULE: Sociology of medicine

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| D.W1. knows the psychophysical development of a human being from birth to death, taking into account the characteristic of physical, emotional, cognitive and social development  D.W2. the notion of health and disease, the influence of the social environment (family, work, social relations) and socio-cultural conditions (origin, social status, religion, nationality and ethnic group) on the patient's state of health  DW5. knows and understands social attitudes towards illness, disability and old age, and the specific impact of stereotypes, prejudice and discrimination  DW11. understands the role of the patient's family in the process of illness (disease recognition, adaptation to the disease, recovery) and ways of coping with difficult situations (disease progression, dying process, mourning)  DW13. knows forms of violence, including domestic violence, social conditions of various forms of violence and the doctor's role in its recognition, as well as the principles of proceeding in case of suspicion of violence, including the ‘Blue Card’ procedure | Summarising methods:  - written assessment (open questions)  Formative methods:  - observation of student work  -assessment of activity during classes  - evaluation of preparation for classes  -discussion during classes  - case study |
| DU1. knows how to respect ethical patterns in professional activities, including planning and carrying out the therapeutic process in accordance with ethical values and the idea of humanism in medicine;  DU4. knows how to demonstrate responsibility for improving their own qualifications and passing knowledge to others;  IU21. knows how to organise social support for a patient and their family | Summarising methods:  - presentation  Formative methods:  - observation of student work  - evaluation of activity during classes  - evaluation of preparation for classes  - discussion during classes |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information  K9. implements the principles of professional colleagueship and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment | Summary methods:  - continuous assessment by the teacher (observation)  Formative methods:  - observation of student work  -discussion during classes |

## SUBJECT/MODULE: Basic preventive medicine with elements of telemedicine

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| B.W23. knows basic IT and biostatistical tools used in medicine,  B.W24. knows basic methods of statistical analysis used in population and diagnostic studies  B.W25. knows and understands the possibilities of modern telemedicine as a tool to support the work of a doctor  BW26. knows the principles of conducting scientific research aimed at development of medicine  DW3. knows human behaviour supporting the maintenance of health and the principles of motivating a patient to pro-health behaviour (Prochaska and DiClemente's model of change, motivating interview)  GW21. knows epidemiology of cancer, in particular nutritional, environmental and other lifestyle factors affecting oncological risk  G.W22. knows the importance of screening in oncology, including the risks associated with diagnostic tests for healthy individuals, and the health benefits in relation to the most common cancers in the Republic of Poland | Summarising methods :  - one-choice test  Formative methods e.g.  -observation of student work  -assessment of activity during classes  - partial credit  - case report |
| B.U8. uses medical databases and interprets correctly the information they contain to solve problems in basic and clinical sciences  BU10. knows how to classify scientific research methodology, including distinguishing between experimental and observational studies with their subtypes, ranking them according to the degree of reliability of the results provided and correctly assessing the strength of scientific evidence;  GU1. describes the demographic structure of the population and based on this, assesses and predicts population health problems;  GU2. is able to collect information on the determinants and presence of risk factors for communicable and non-communicable diseases and plan preventive actions at different levels of prevention; | Summarising methods:  - completing a specific task  Formative methods:  - observation of student work  - evaluation of activity during classes  - partial credit  - case report |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K6. promotes pro-health behaviour  K7. uses objective sources of information | Summary methods:  - continuous assessment by the teacher (observation)  Formative methods:  - observation of student work  - discussion during classes |

## SUBJECT/MODULE: OCCUPATIONAL HEALTH AND SAFETY (OSH)

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| **Learning outcomes/programme contents** |  |
| EW31. knows and understands the basic issues of prevention and management of occupational exposure to hazardous and harmful factors  IW35. The student is familiar with the concepts, occupational health and safety regulations and regulations of the university concerning occupational health and safety. | Summarising methods:  - oral examination  Formative methods:  - observation of student work |

## SUBJECT/MODULE: Pathophysiology

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| **Learning outcomes/curriculum content** | **The ways of verifying and assessing student learning outcomes** |
| BW15. knows the metabolic changes occurring in organs and the metabolic, biochemical and molecular basis of disease and therapy BW16. knows the ways in which cells communicate with each other, between the cell and the extracellular matrix; and signal transmission pathways in the cell and examples of disruption in these processes leading to cancer and other diseases BW17. knows the processes such as cell cycle, proliferation, differentiation and ageing of cells, apoptosis and necrosis and their importance for the functioning of the organism B.W21. knows the processes occurring during ageing of the organism and changes in organ function related to ageing C.W5. knows genetic determinants of the most common monogenic, polygenic and multifactorial diseases, basic chromosome aberration syndromes, syndromes caused by genomic rearrangements, polymorphisms, epigenetic and post-transcriptional changes CW23. defines the clinical course of specific and non-specific inflammation and describes the regenerative processes of tissues and organs  CW24. knows the aetiology, mechanisms and consequences of haemodynamic disorders,  C.W26. knows pathogenesis of diseases, including genetic and environmental factors CW27. knows and understands pathomechanisms and clinical forms of the most common diseases of individual systems and organs, metabolic diseases and disorders of water-electrolyte, hormonal and acid-base metabolism  CW38. knows and understands the effects of oxidative stress on cells and its significance in the pathogenesis of diseases and in the processes occurring during ageing of the organism CW39. knows and understands the consequences of deficiency and excess of vitamins and minerals CW40. knows and understands the reasons for and consequences of inadequate nutrition, including long-term insufficient and excessive intake of food and use of an unbalanced diet, as well as digestion and absorption disorders  CW42.knows the molecular basis of cancer and the immunology of cancer | Summarising methods, for instance:  -written test (multiple-choice -MCQ)  Formative methods, for instance:  - evaluation of activity in class - evaluation of the preparation for classes - discussion during classes - partial credit |
| BU7. is able to interpret numerical data on basic physiological variables; BU11. plans and performs scientific investigations and interprets the results and draws conclusions CU7. knows how to relate images of tissue and organ damage to clinical signs of disease, medical interview and results of laboratory determinations in order to establish a diagnosis in the most common diseases of adults and children; | Summarising methods, for instance:  -project, presentation  Formative methods, for instance:  - evaluation of activity in class - evaluation of the preparation for classes - discussion during classes - partial credit |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs K7. uses objective sources of information K8. draws conclusions from his/her own measurements or observations K11. accepts responsibility connected with decisions made in the course of professional activity, including safety aspects | Summarising methods, for instance:  -continuous assessment by the teacher (observation)  Formative methods, for instance:  - discussion during classes |

## SUBJECT/MODULE: Physical education

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| **Learning outcomes/programme content** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| IW36. understands the importance of physical activity in preventive health care and in the medical profession  IW37. has knowledge of the socio-educational function of physical activity in preparing people for recreation and work | Summarising methods:  - observation of student work  -assessment of activity during classes  - evaluation of preparation for classes |
| IU28. has the ability to perform the basic elements of technique of selected sports and recreational disciplines effectively and skilfully. | Summarising methods:  -observation of student work  - evaluation of activity during classes  - evaluation of preparation for classes |
| K6. promotes health-promoting behaviour | Summarising methods:  - continuous assessment by the teacher (observation)  Formative methods:  - observation of student work |

## SUBJECT/MODULE: Physiology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| BW1. describes water-electrolyte balance in biological systems;  BW2. describes acid-base balance and the mechanism of functioning of buffers and their importance in [homeostatic equilibrium](https://www.diki.pl/slownik-angielskiego?q=homeostatic+equilibrium);  BW19. knows the basics of excitation and conduction in the nervous system and higher nervous activities as well as skeletal and smooth muscle physiology  BW20. knows the function and regulation mechanisms of all organs and systems of the human organism and the relationships existing between them;  BW21. knows the processes occurring during ageing of the organism and changes in the functioning of organs associated with ageing  BW22. knows the basic quantitative parameters describing the capacity of individual systems and organs, including the ranges of norms and demographic factors influencing the value of these parameters | Summarising methods  - written exam on the whole lecture and exercise material  Formative methods  - observation of student work  -assessment of activity during classes  - evaluation of preparation for classes  - discussion during classes  - oral and/or written assessment of the subject of the exercise; periodical written tests covering a given section of physiology |
| BU7. conducts simple functional tests to assess the human body as a stable regulatory system (load tests, exercise tests); interprets numerical data on basic physiological variables;  BU11. plans and performs a scientific investigation and interprets the results and draws conclusions. | Summarising methods:  - written exam on the whole lecture and exercise material  Formative methods:  - observation of student work  - evaluation of activity during classes  - evaluation of the preparation for classes  -discussion during classes  - oral and/or written assessment of the topic of the exercise; periodic written tests covering a given section of physiology; |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information  K8. formulates conclusions from own measurements or observations  K10. gives opinions on various aspects of professional activity | Summary methods:  - Continuous evaluation by the teacher (observation)  Formative methods:  - observation of student work  -discussion during classes  - opinions of patients, colleagues |

## SUBJECT/MODULE: Microbiology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW9. knows the genetic mechanisms of acquisition of drug resistance by microorganisms and cancer cells and their relation to the necessity of individualisation of pharmacotherapy  CW10. knows and understands microorganisms including pathogenic and constituting the human microbiome and human invasive forms or developmental stages of selected parasites;  CW11. Knows the epidemiology of infections caused by viruses, bacteria fungi and parasitic infections including the geographical range of their occurrence;  CW12. knows the pathogenesis and pathophysiology of infections and infestations and the impact of pathogenic agents such as viruses, bacteria, fungi, prions and parasites on the human body and population, including the ways of their impact, the consequences of exposure to them and the principles of prevention  CW14. knows the aetiology, pathogenesis, pathophysiology, ways of transmission, forms and prevention of iatrogenic infections  CW15. knows and understands the methods used in microbiological diagnostics (indications, principles of performance, interpretation of the result)  CW16. knows and understands the principles of diagnosis of infectious, allergic, autoimmune and neoplastic diseases and blood diseases based on antigen-antibody reaction  CW17. knows the basics of disinfection, sterilization and aseptic procedures  CW32. understands the problem of drug resistance, including multidrug resistance, and the principles of rational antibiotic therapy | Summarising methods:  Final assessment - practical and written credit  Formative methods:  Exercises - written and practical credit  Written tests |
| CU5. is able to recognise pathogens under the microscope  CU6. interprets the results of microbiological examinations  CU10. designs a rational chemotherapy regimen for infections - empirical and targeted  CU12. is able to search for reliable information on medicinal products, with particular reference to the characteristics of medicinal products (SmPC) and databases | Summarising methods:  Practical assessment credit  Formative methods:  -observation of student work  -assessment of preparation for classes |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information  K8. formulates conclusions from own measurements or observations  K10. formulates opinions on various aspects of professional activity | Continuous assessment by teacher |

## SUBJECT/MODULE: Parasitology

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| **Learning outcomes/curriculum content** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW10. knows and understands microorganisms, including pathogenic ones and those constituting the human microbiome, as well as invasive human forms or developmental stages of selected parasites;  CW11. knows the epidemiology of infections caused by viruses, bacteria, fungi and prions, and parasitic infections, taking into account the geographical range of their distribution  CW12. knows and understands the pathogenesis and pathophysiology of infections and infestations, and the impact of pathogens such as viruses, bacteria, fungi, prions and parasites on the human body and population, including the ways of their impact, the consequences of exposure to them and the principles of prevention  CW14. knows the aetiology, pathogenesis, pathophysiology, ways of transmission, forms and prevention of iatrogenic infections  CW15. knows and understands the methods used in microbiological and parasitological diagnostics (indications, principles of performance, interpretation of the result);  CW17. knows the principles of disinfection, sterilisation and aseptic management  CW32. knows the problem of drug resistance, including multidrug resistance, and the principles of rational antibiotic therapy; | Summarising methods:  Written exam in the form of test  Formative methods:  Exercise-written test |
| AU1. is able to operate an optical microscope, including the use of immersion;  AU2. is able to recognise in microscopic images structures corresponding to organs, tissues, cells and cellular structures, describe and interpret their structure and the relationship between structure and function;  CU5. recognises pathogens under the microscope  CU6. interprets the results of microbiological examinations for the detection of parasites | Summarising methods:  Written test  Formative methods:  Exercise-written test |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information  K8. formulates conclusions from own measurements or observations  K10. formulates opinions on various aspects of professional activity | Continuous assessment by the teacher |

## SUBJECT/MODULE: Biostatistics

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| BW23. knows basic informatics and biostatistical tools used in medicine,  BW24. knows basic methods of statistical analysis used in population-based and diagnostic research;  BW26. knows the principles of scientific research for the advancement of medicine. | Summarising methods :  - written assessment  Formative methods:  - observation of student work  - evaluation of preparation for classes  - discussion during classes |
| BU8. uses medical databases and properly interprets the information contained in them needed to solve problems in the basic and clinical sciences  BU9. selects an appropriate statistical test, performs basic statistical analyses, and uses appropriate methods of presentation of results;  BU10. knows how to classify the methodology of scientific research, including distinguishing between experimental and observational studies along with their subtypes, ranking them according to the degree of reliability of the results provided and correctly assessing the strength of scientific evidence;  BU11. plans and executes a scientific study and interprets its results and formulates conclusions. | Summarising methods :  - written assessment  Formative methods:  - observation of student work  - evaluation of preparation for classes  - discussion during classes |
| K7. uses objective sources of information  K8. formulates conclusions from his own measurements or observations | Summarising methods:  - continuous assessment by teacher (observation)  Formative methods:  -observation of student work  -discussion during class |

## SUBJECT/MODULE: Epidemiology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW11. knows the epidemiology of infections caused by viruses, bacteria, fungi and prions, as well as parasitic infections, including the geographical range of their occurrence  DW18. knows the history of medicine, features of modern medicine and most important discoveries and achievements of leading representatives of medicine  of Polish and world medicine;  DW19. knows the basics of evidence-based medicine;  EW32. knows the principles of management of suspected and detected infectious disease;  EW38. knows the principles of health-promoting behaviour, basics of prevention and early detection of the most common diseases of civilization and the principles of screening for these diseases;  GW1. knows the methods of assessing the health status of the individual and population, measures and  principles of monitoring the health status of the population, classification systems diseases and medical procedures  GW2. knows the determinants of diseases, ways to identify and study risk factors of diseases, advantages and disadvantages of epidemiological studies, and  principles of causal inference in medicine  GW3. knows the epidemiology of infectious diseases including those related to health care and non-communicable, types and methods of prevention at different stages of the natural history of the disease and the role of epidemic surveillance;  GW8. knows the legal regulations on medical experimentation and conduct of scientific research involving human subjects | Summarising methods:  - written assessment  Formative methods:  -observation of student work  -evaluation of activity during  classes  -evaluation of preparation for classes  -discussion during classes  -partial credit |
| BU8. knows how to use medical databases and properly  interpret the information contained therein needed to solve problems in basic and clinical sciences  BU10. knows how to classify the methodology of scientific research, including distinguishing between experimental and observational studies along with their  subtypes, rank them according to the degree of reliability of the results provided results, and correctly assess the strength of scientific evidence;  BU11. knows how to plan and execute scientific research and interpret their results and formulate conclusions;  GU1. describes the demographic structure of the population and on this basis assesses and predicts population health problems;  GU2. is able to obtain information on the determinants and presence of risk factors of infectious and non-communicable diseases and plans actions  prevention at different levels of prevention;  GU3. knows how to interpret positive and negative measures of health;  GU4. knows how to assess the epidemiological situation of infectious and non-communicable in the Republic of Poland and in the world; | Summarising methods:  - completing a specific task  Formative methods:  -observation of student work  -assessment of activity during classes  -discussion during classes |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational Leeds  K6. promotes pro-health behaviour | Summarising methods:  - continuous assessment by teacher (observation)  Formative methods:  -observation of student work  -evaluation of activity during  -discussion during classes |

## SUBJECT/MODULE: Pathomorphology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW23. defines the clinical course of specific and non-specific inflammation, describes tissue and organ regeneration processes  CW24. knows the aetiology, mechanisms and consequences of disorders of haemodynamic disorders.  CW25. knows the organ pathology, macroscopic and microscopic pathomorphological changes and clinical consequences including  pathomorphological nomenclature.  CW26. knows the pathogenesis of diseases, including genetic and  environmental  CW42. knows the molecular basis of cancer and issues in cancer immunology | Summarising methods :  - final exam in the form of test-120 questions, minimum to pass 72 points  Formative methods:  - observation of student work  - evaluation of activity during classes  -assessment of individual activities  -assessment of the preparation for classes  -discussion during classes  -subjective assessments  -preparation of presentations |
| CU7. links images of tissue and organ damage to clinical signs of disease, history and laboratory findings to establish a diagnosis in the most common diseases of adults and children; | Formative methods:  -observation of student work  - evaluation of activity during classes  - credit for individual activities  -assessment of the preparation for classes  -discussion during classes  -credit for individual activities  -preparation of presentations |
| K1. observes medical confidentiality and patient rights  K3. is guided by the welfare of the patient  K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information  K8. formulates conclusions from own measurements or observations  K10. forms opinions on various aspects of professional activity professional activity  K11. accepts responsibility associated with decisions taken within the scope of professional activity, including in terms of safety of oneself and others | Summarising methods:  - continuous assessment by the teacher (observation)  Formative methods:  -observation of student work  -discussion during classes  - opinions of patients, colleagues |

## SUBJECT/MODULE: Immunology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW4. knows the genetic determinants of human blood groups and serological conflict in the Rh system;  CW16. knows the principles of diagnosis of infectious, allergic, autoimmune and neoplastic diseases and blood diseases based on the antigen - antibody reaction  CW18. knows specific and non-specific mechanisms of humoral and cell-mediated immunity;  CW19. knows and understands the major tissue compatibility system;  CW20. knows types of hypersensitivity reactions, types of immunodeficiencies and basics of immunomodulation;  CW21. knows the immunology of cancer and immune-mediated diseases;  CW22.  knows the immunological basis and the principles of immunotherapy;  CW22. defines the genetic basis of donor and recipient selection and the basics of transplantation immunology  CW23. defines the clinical course of specific and non-specific inflammations and describes the processes of tissue and organ regeneration | Summarising methods:  - written exam - test - 50 multiple choice questions  Formative methods:  -assessment of activity during class  -discussion during classes  -semi-assessments -tests - 30 multiple-choice questions  -case report |
| CU7. is able to relate images of tissue and organ damage to clinical signs of disease, history and results of laboratory determinations  laboratory findings to establish a diagnosis in the most common diseases of adults and children;  IU18. interprets the results of immunological tests; | Summarising methods:  completing a specific task - interpreting anamnestic data, physical examination data and laboratory findings in the context of the diagnosis of primary and secondary immunodeficiencies  Formative methods:  -assessment of activity during class  -discussion during classes  -semi-assessments -tests - 30 multiple-choice questions  -case report |
| K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K8. formulates conclusions from own measurements or observations  K10. forms opinions on various aspects of professional activity professional activities | Summarising methods e.g.:  - continuous assessment by the teacher (observation)  Formative methods e.g.  -observation of student work  -discussion during classes  - opinions of patients, colleagues |

## SUBJECT/MODULE: Molecular biology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| BW11. knows the function of nucleotides in the cell, the I- and II-order structures of DNA and RNA and the structure of chromatin  BW12. knows the functions of the human genome, transcriptome and proteome and the methods used in their study; describes the processes of replication, repair and DNA recombination, transcription and translation and the degradation of DNA, RNA and proteins; knows the concept of regulation of gene expression  BW18. knows the functions and applications of stem cells in medicine  CW2. knows the genetic causes of hereditary predisposition to cancers  CW8. knows methods of genetic diagnostics and basic indications for their use  CW43. knows practical elements of molecular biology and immunology, used in diagnosis and therapy of oncological diseases | Summarising methods:  -written assessment in the form of a multiple-choice test  Formative methods:  -assessment of activity during class  -discussion during classes  -partial assessments |
| BU18. uses medical databases, and properly interprets the information they contain to solve problems in basic and clinical science | Summarising methods:  -completing a specific task  -presentation  Formative methods:  -assessment of activity during class  -assessment of individual activities  -discussion during classes |
| K7. uses objective sources of information  K8. draws conclusions from their own measurements or observations | Summarising methods:  - continuous assessment by  teacher (observation)  Formative methods, e.g.  -observation of student work  -discussion during classes |

## SUBJECT/MODULE: Clinical genetics

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW1. knows and understands the normal human karyotype and sex chromosomes.  CW2. knows the genetic causes of hereditary predisposition to cancer  CW3. knows the principles of inheritance of different numbers of traits, inheritance of quantitative traits, independent inheritance of traits and inheritance of extranuclear genetic information  CW4. knows the genetic determinants of human blood groups and serological conflict in the Rh system  CW5. knows the genetic determinants of the most common monogenic diseases, polygenic and multifactorial, basic chromosome aberration syndromes, syndromes caused by genomic rearrangements, polymorphisms, epigenetic and post-transcriptional changes  CW6. knows the factors influencing primary and secondary genetic balance  populations  CW7. knows the genetic determinants of congenital defects and selected rare diseases and the possibility of their prevention  CW8. knows methods of genetic diagnostics and basic indications for their application  CW33. knows the option and types of biological, cellular and gene and targeted therapies in specific diseases  EW36. knows causes, symptoms, principles of diagnosis and therapeutic treatment therapeutic in the most common genetically determined diseases among children and adults  IW23. knows the basic elements of genetic guidance  IW24. knows dysmorphic trait syndromes as an expression of the coupling and interaction of human genes in medical practice.  IW25. knows contemporary diagnostic techniques for chromosome evaluation relevant to clinical practice and the principles of cytogenetic nomenclature.  IW26. describes the genotoxic effects of environmental factors on the human genome.  IW27. knows the principles of inheritance of monogenic disorders, inheritance of polygenic, chromosomal and other disorders according to the mechanisms of formation.  IW28. knows clinical diagnosis of chromosomal disorders.  IW29. is able to identify the therapeutic and rehabilitative perspectives of people with intellectual disability caused by genetic variations | Summarising methods:  - written assessment - test  Formative methods:  -observation of student work  - evaluation of student's activity during classes  -discussion during classes  -preliminary tests |
| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CU1.knows how to plot and analyse lineages and identify clinical and lineage-related traits which suggest the genetic basis of diseases;  CU2. decides on the need for cytogenetic and molecular tests  CU3. knows how to read basic genetic test results, including karyotypes;  CU4. knows how to determine genetic risk based on lineage and genetic test result in the case of chromosomal aberrations, genomic rearrangements  genomic, monogenic and multifactorial diseases;  IU22. knows the principles of morphological and behavioural phenotype assessment in the clinical diagnosis of genetic disorders  IU23. is able to decide on the need for cytogenetic and molecular tests depending on the clinical diagnosis in a proband or in a married couple interested in prenatal diagnosis  IU24. is able to interpret the records of cytogenetic and molecular tests in relation to the clinical assessment of probands  IU25. knows the elements of genetic counselling and how to communicate the nature of the genetic condition in question and the likelihood of its  occurrence in subsequent offspring. | Summarising methods:  - completing a specific task |
| K1. observes medical confidentiality and patient rights  K4. notices and recognises their own limitations and takes a self-assessment of deficits and educational needs  K7. uses objective sources of information  K8. formulates conclusions from own measurements or observations  K10. forms opinions on various aspects of professional activity | Formative methods:  - observation of student work |

## SUBJECT/MODULE: Professionalism in medicine

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| **Learning outcomes/programme content** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| DW5. knows and understands social attitudes towards illness, disability and old age and the specific impact of stereotypes, prejudice and discrimination  DW6. knows the concept of empathy and the phrases and behaviours for expressing it  DW7. understands the nature and role of verbal (conscious construction of messages) and non-verbal (e.g. facial expressions, gestures, management of silence and space)  DW8. understands the psychosocial consequences of acute and chronic illness in children, including adolescents and adults  DW9. knows the psychosocial consequences of hospitalisation of children, including adolescents and adults in emergency and chronic illness;  DW10. knows the psychosocial consequences of illness for the patient's family (family with a  ill child, including adolescent, adult and older person);  DW11. understands the role of the family in the process of becoming ill (recognition of the illness, adaptation to illness, recovery) and ways of coping with difficult situations (disease progression, dying process, bereavement)  DW16. knows and understands the rights of the patient and the concept of patient welfare  DW19. knows the basics of evidence-based medicine  DW20. the concepts of patient safety and safety culture and their organisational, communication and management aspects | Summarising methods:  credit for classes - written assessment  Descriptive examination - essay,  Formative methods, e.g.  - observation of student work  -evaluation of activity during classes  -evaluation of preparation for classes  -discussion during classes  - case report |
| DU1. follows ethical models in professional activities including planning and conducting the therapeutic process according to the values of ethical values and the idea of humanism in medicine;  DU3. respects the rights of the patient,  DU4. shows responsibility for improving their qualifications and transferring knowledge to others  DU7. knows how to develop and improve self-awareness, ability to self-reflect and self-care and reflect with others on their own way of communication and behaviour;  DU8. knows how to recognise one's own emotions and manage them in relationships with others in order to perform effectively in spite of one's own emotional reactions;  DU9. is able to describe and critically evaluate their own behaviour and manner of  communication, taking into account the possibility of alternative behaviour;  DU10. knows how to use open-ended questions, closed questions as appropriate to the situation, paraphrase, clarification, internal and final summaries, signalling,  active listening (e.g. capturing and recognising signals given by the interlocutor, verbal techniques, etc.)and facilitation (encouraging the interlocutor to speak);.  the interlocutor to speak);  DU11. knows how to adapt verbal communication to the needs of the patient,  expressing themselves in an understandable way and avoiding medical jargon;  DU12. knows how to recognise and analyse difficult situations and challenges related to communication, including crying, strong emotions, anxiety, interrupting speech, troublesome and sensitive issues, silence, withdrawal, aggressive and claims, and deal with them in a constructive manner;  DU13. knows how to establish contact with the patient and the person accompanying the patient to build an appropriate relationship (e.g. 4 Habits Model:  Invest in the beginning, Demonstrate empathy, Elicit the patient's perspective, Invest in the end);  DU14. is able to see the situation from the patient's perspective, building an appropriate  context of the conversation and using the elicitation method, and then incorporate it in the building verbal messages.  EU23. knows how to conduct a conversation with a patient taking into account the scheme of the conversation (starting the conversation, gathering information, clarifying and planning, end of conversation), taking into account the structuring of such a conversation and structuring the relationship with the patient using the chosen model (e.g. guidelines Calgary-Cambridge, Segue, Kalamazoo Consensus, Maastricht Maas Global guidelines), including through electronic means of communication;  EU24. is able to analyse a patient medical history for the occurrence of suicidal thoughts  EU25. knows how to convey information to the patient, adapting the amount and content to the patient's needs and abilities, and supplement verbal information with models and written information, including diagrams and instructions, and use them appropriately;  EU26. knows how to make diagnostic and therapeutic decisions together with the patient (assess the patient's level of involvement, needs of the patient, their needs and possibilities; knows how to encourage the patient to take an active part in the decision-making process, discuss the advantages, disadvantages and opportunities of the treatment) and obtain informed consent from the patient;  EU27. knows how to communicate with patients from groups at risk of exclusion economic or social exclusion, respecting their dignity;  EU28. is able to identify social determinants of health, indicators of the prevalence of anti-health and self-destructive behaviours and discuss them  with the patient and make a note in the medical record;  EU29. is able to identify possible indicators of violence, including domestic violence, take an interview to verify if there is a risk that the patient is experiencing violence, make a note in the medical records and initiate the ‘Blue Card’ procedure;  EU30. knows how to apply the principles of feedback (constructive, non-evaluative, descriptive) as part of team collaboration;  EU31. is able to accept, explain and analyse their own role and responsibilities  in the team and recognise their role as a clinician in the team;  EU32. is able to obtain information from team members respecting their diverse opinions and specialist competences, and incorporate this information in the patient's diagnostic and therapeutic plan;  EU33. knows how to discuss the patient's situation in the team excluding subjective  assessments, respecting the dignity of the patient;  EU34. is able to apply the following protocols (e.g. when handing over the care of a  patient care, ordering or providing patient consultation):  1) ATMIST (A (Age), T (Time of injury ), M  (Mechanism of injury), I (Injury suspected), S (Symptom), T (Treatment/Time  arrival));  2) EMPATHY: E (Emotions), M (Place), P (Patient's perspective), A (Adequate  language), T (Message content), I (Additional information), A (Annotation in the  documentation),  3) ABCDE: A (Advance preparation), B (Build  therapeutic environment - establish good contact with the family), C  (Communicate well - conveying a bad message, taking into account the principles of  communication), D (Dealing with reactions - dealing with difficult emotions), E (Encourage and validate emotions - the right to show emotions, redirecting  them and respond appropriately, aiming to end the encounter)  - including supporting the family in the process of dying with dignity for the patient and informing the family about the patient's death;  FU22. knows how to obtain information from team members respecting their  diverse opinions and specialist competencies, and incorporate this information in the patient's diagnostic and therapeutic plan, and apply the ATMIST, RSVP/ISBAR protocols. | Summarising methods e.g.:  Completion of a specific credit assignment  -designing a mind map  -Case study analysis  Formative methods, e.g.:  -observation of student work  -evaluation of activity during classes  -evaluation of individual activities  -evaluation of preparation for classes  -discussion during classes  -case description - presentation  -continuous teacher assessment |
| K1. respects medical confidentiality and the patient’s rights,  K2. can establish and maintain a profound and respectful contact with the patient and show understanding for worldview and cultural differences,  K3. is guided by the well-being of the patient,  K4. recognizes and acknowledges their own limitations and carries out a self-assessment of deficits and learning needs,  K5. acts towards the patient on the basis of ethical principles, with the awareness of social conditions and limitations resulting from the illness,  K7. uses objective sources of information,  K8. formulates conclusions from their own measurements or observations,  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment,  K11. takes responsibility for decisions made in the course of their professional activity, including in terms of their own safety and the safety of others. | Summary methods, e.g.:  - Continuous assessment carried out by the teacher (observation).  Formative methods, e.g.:  - Observation of student’s work,  - Discussion during classes,  - Opinions of patients, colleagues. |

## SUBJECT/MODULE: Public health

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| **Learning outcomes/curriculum content** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| DW2. knows the meaning of health and disease, the influence of the social environment (family, work, social relationships) and the socio-cultural conditions (descent, social status, religion, nationality, and ethnic group) on the patient’s health condition,  EW38. knows the principles of health-promoting behaviour, the basics of prevention and early detection of the most common civilization diseases and the principles of screening of these diseases,  GW1. knows methods of assessing individual and population health status, measures and principles of monitoring population health status, disease classification systems and medical procedures,  GW3. knows the epidemiology of infectious diseases, including those related to health care, and non-infectious diseases, the types and methods of prevention at different stages of the natural history of the disease, and the role and principles of epidemiological surveillance,  GW4. knows the concept and functioning of public health, the concept, tasks and methods of health promotion, the concept of quality in health care and factors influencing it, the structure and organization of the health care system at national and global level, and the impact of economic determinants on health care capacity,  GW6. knows the regulations regarding an organization and financing of the health care system, provision of publicly financed health care services and the principles of organization of health care entities, principles of information and communication tools and services in health care (e-health),  GW8. knows the legal regulations concerning medical experimentation and the conduct of scientific research with human subjects. | Summarizing methods, e.g.:  - Written assessment (knowledge test).  Formative methods, e.g.:  - Class discussion. |
| BU8. knows how to use medical databases and correctly interpret the information they contain to solve problems in basic and clinical sciences,  DU5. is able to critically analyse medical literature, including in English, and draw conclusions,  GU1. describes the demographic structure of the population and based on this, assesses and predicts population health problems,  GU2. knows how to collect information on the determinants and presence of risk factors for infectious and non-infectious diseases and plan precautionary actions at different levels of prevention,  GU3. is able to interpret positive and negative measures of health,  GU4. is able to evaluate the epidemiological situation of infectious and non-infectious diseases in Poland and worldwide,  GU5. explains to people receiving medical health services their basic entitlements and the legal basis for the provision of these services,  GU10. knows how to organize the work environment in a manner ensuring the safety of the patient and other people taking into account the influence of human factors and ergonomic principles,  IU27. is able to find relevant legal acts containing norms for providing health services and practicing the medical profession. | Summary methods, e.g.:  - Written assessment (completion of a specific task).  Formative methods, e.g.:  - Class discussion. |
| K4. recognizes and acknowledges their own limitations and carries out a self-assessment of deficits and learning needs,  K6. promotes pro-health behaviour,  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment. | Summarizing methods, e.g.:  - Continuous assessment carried out by the teacher (observation).  Formative methods, e.g.:  - Observation of student’s work,  - Class discussion. |

## SUBJECT/MODULE: Medical psychology

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| **Learning outcomes/programme content** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| DW1. knows the psychophysical development of a human being from birth to death, including the specifics of physical, emotional, cognitive and social development,  DW4. knows the concept of stress, including eustress and distress, and the influence of stress on the aetiopathogenesis and course of somatic diseases and mental disorders, and mechanisms of coping with stress,  DW5. knows social attitudes towards illness, disability and old age and the specific impact of stereotypes, prejudices and discrimination,  DW6. Knows the concept of empathy and the phrases and behaviours for expressing it,  DW7. understands the nature and role of verbal communication (conscious construction of messages) and non-verbal communication (e.g. facial expressions, gestures, management of silence and space),  DW8. understands the psychosocial consequences of hospitalisation and acute and chronic illness in children, including adolescents and adults,  DW9. knows the psychosocial consequences of hospitalisation in children, including adolescents, and adults in emergency situations and chronic illnesses,  DW10. knows the psychosocial consequences of illness for the patient's family (family with ill child, including adolescent, adult and elderly person),  DW11. knows the family role of the patient in the process of illness (disease recognition, adaptation to the disease, recovery) and ways of coping with difficult situations (disease progression, dying process, mourning),  DW13. knows the forms of violence, including domestic violence, the social conditions of various forms of violence and the doctor's role in its recognition, as well as the principles of proceeding in case of suspicion of violence, including the ‘Blue Card’ procedure,  IW38. knows the assumptions of psychological therapy based on empirical research. | Summary methods, e.g.:  - Oral examination covering the entire material,  - Written assessment of the material discussed in the laboratory classes.  Formative methods, e.g.:  a) During classes:  - Observation of student’s work,  - Activity during classes,  - Discussion during classes,  - Case study;  b) During lectures:  - Observation of direction of student’s attention and providing feedback,  - Discussion after the lecture. |
| DU7. knows how to develop and improve their self-awareness, ability to self-reflect and care for themselves and consider with others their own way of communicating and behaving,  DU8. knows how to recognize their own emotions and manage them in their relationships with other people in order to perform effectively despite their own emotional reactions,  DU9. knows how to describe and critically evaluate their own behaviour and way of communicating, taking into account the possibility of alternative behaviour. | Summary methods, e.g.:  - Project, presentation.  Formative methods, e.g.:  - Observation of student’s work,  - Discussion during classes,  - Credit for participation and activity in psychological workshops,  - Case study. |
| K1. respects medical confidentiality and the patient’s rights,  K2. can establish and maintain a profound and respectful contact with the patient and show understanding for worldview and cultural differences,  K3. is guided by the well-being of the patient,  K4. recognizes and acknowledges their own limitations and carries out a self-assessment of deficits and learning needs,  K5. acts towards the patient on the basis of ethical principles, with the awareness of social conditions and limitations resulting from the illness,  K7. uses objective sources of information,  K8. formulates conclusions from their own measurements or observations,  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment,  K11. takes responsibility for decisions made in the course of their professional activity, including in terms of their own safety and the safety of others . | Summary methods, e.g.:  - Continuous assessment carried out by the teacher (observation).  Formative methods, e.g.:  - Observation of student’s work,  - Discussion during classes,  - Credit for participation and activity in psychological workshops,  - Feedback from colleagues. |

## SUBJECT/MODULE: Regenerative medicine

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| BW16. knows the ways in which cells communicate with each other and between the cell and the extracellular matrix, as well as the signal transmission pathways in the cell and examples of disruptions in these processes leading to cancer and other diseases,  BW17. knows processes such as the cell cycle, cell proliferation, differentiation and ageing of the cell, apoptosis and necrosis and their importance for the functioning of the organism,  BW18. knows the functions and applications of stem cells in medicine,  BW21. knows the processes occurring during the ageing of an organism and changes in organ function associated with ageing,  BW26. knows the principles of conducting scientific research for the development of medicine,  CW17. knows the basics of disinfection, sterilisation and aseptic technique,  CW23. knows how to define the clinical course of specific and non-specific inflammations and describes the processes of tissue and organ regeneration. | Summary methods, e.g.:  - Written assessment.  Formative methods, e.g.:  - Observation of student’s work,  - Evaluation of student’s activity during classes,  - Discussion during classes. |
| BU11. knows how to plan and carry out scientific research and interpret the results and formulate conclusions. | Summary methods, e.g.:  - Completion of a specific task,  - Project, presentation.  Formative methods, e.g.:  - Observation of student’s work,  - Evaluation of student’s activity during classes,  - Credit for individual activities,  - Evaluation of preparation for classes,  - Discussion during classes,  - Presentation of results. |
| K4. recognizes and acknowledges their own limitations and carries out a self-assessment of deficits and learning needs,  K7. uses objective sources of information,  K8. formulates conclusions from their own measurements or observations. | Summary methods, e.g.:  - Continuous assessment carried out by the teacher (observation).  Formative methods, e.g.:  - Observation of student’s work,  - Discussion during classes,  - Feedback from colleagues. |

## SUBJECT/MODULE: Pharmacology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW28. knows specific groups of medicinal products, understands their mechanisms and effects of action, knows basic indications and contraindications and basic pharmacokinetic and pharmacodynamic parameters,  CW29. knows and understands physiological and pathological conditions of absorption, metabolism and elimination of medication by the human body,  CW30. knows the basic principles of pharmacotherapy including its effectiveness,  CW31. knows the major side effects of drugs, interactions and the problem of poly-pragmasy,  CW32. understands the problem of drug resistance, including multidrug resistance, and the principles of rational antibiotic therapy,  CW33. knows the possibility and types of biological, cellular, and gene therapy, and target therapies in specific diseases,  CW34. knows basic concepts of general toxicology,  CW35. knows groups of drugs whose abuse can lead to poisoning,  CW36. knows the symptoms of the most common acute poisonings with selected groups of drugs, alcohols and other psychoactive substances, fungi and heavy metals,  EW8. knows the principles of pharmacotherapy in patients with kidney failure and Renal Replacement Therapy. | Summary methods, e.g.:  - Written assessment (multiple-choice test).  Formative methods, e.g.:  - Observation of student’s work,  - Evaluation of student’s activity during classes,  - Credit for individual activities (prescriptions, theory),  - Evaluation of preparation for classes,  - Discussion during classes,  - Partial credit (prescriptions, tests). |
| CU8. performs simple pharmacokinetic calculations,  CU9. selects drugs in appropriate doses to correct pathological phenomena in the human body and in individual organs,  CU10. designs a scheme for rational chemotherapy of infections - empirical and targeted,  CU11. can prepare records of prescription forms of selected medical substances and issue prescriptions, including e-prescriptions, in accordance with legislation,  CU12. knows how to search for reliable information on medicinal products, with particular regard to the summary of product characteristics (ChPL) and databases,  CU13. can estimate toxicological hazards in specific age groups and in liver and kidney failure states and prevent drug poisoning. | Summary methods, e.g.:  - Completion of a specific task, ability to write prescriptions.  Formative methods, e.g.:  - Observation of student’s work,  - Evaluation of activity during classes,  - Credit for individual activities (prescriptions, theory),  - Evaluation of preparation for classes,  - Discussion during classes,  - Partial credit (prescriptions, tests). |
| K3. is guided by the well-being of the patient,  K4. recognizes and acknowledges their own limitations and carries out a self-assessment of deficits and learning needs,  K7. uses objective sources of information,  K10. forms opinions on various aspects of professional activity,  K11. takes responsibility for decisions made in the course of their professional activity, including in terms of their own safety and the safety of others. | Summary methods, e.g.:  - Continuous assessment by the teacher during each activity.  Formative methods, e.g.:  - Observation of student’s work,  - Discussion during classes. |

## SUBJECT/MODULE: Internal diseases

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| **Learning outcomes/ programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW7. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic procedure for the most common internal paediatric diseases occurring in adults and their associated complications:   1. Cardiovascular diseases, including ischaemic heart disease, heart defects, endocardial diseases, myocardium, pericardium, heart failure (acute and chronic), arterial and venous vascular diseases, hypertension: primary and secondary, pulmonary hypertension, 2. Respiratory diseases, including: airway respiratory diseases, chronic obstructive pulmonary disease, asthma, bronchial dilatation, cystic fibrosis, respiratory infections, tuberculosis, interstitial lung diseases, pleurisy, mediastinum, obstructive and central sleep apnoea, respiratory failure (acute and chronic), respiratory tumours, 3. Gastrointestinal diseases, including diseases of the mouth, oesophagus, stomach and duodenum, intestines, pancreas, liver, biliary tract and gallbladder, as well as tumours of the gastrointestinal tract, 4. Diseases of the endocrine system, including diseases of the hypothalamus and pituitary gland, thyroid gland, parathyroid glands, adrenal cortex and medulla, ovaries and testes, as well as neuroendocrine tumours, polyglandular syndromes, different types of diabetes, metabolic syndrome: obesity, dyslipidaemia and hypoglycaemia, ovarian, testicular and thyroid tumours, neuroendocrine tumours, 5. Diseases of the kidney and urinary tract, including acute kidney injury and chronic kidney disease in all stages and their complications, glomerular diseases (primary and secondary, including diabetic nephropathy and systemic diseases) and interstitial kidney diseases, renal hypertension, kidney cysts, kidney stones, urinary tract infections, urinary tract neoplasms, (upper and lower), kidney diseases during pregnancy, urinary tract neoplasms - kidney cancer, bladder cancer, prostate cancer, 6. Diseases of the haematopoietic system, including bone marrow aplasia, anaemia, granulocytopenia and agranulocytosis, thrombocytopenia, acute and chronic leukaemia, myeloma, myeloproliferative neoplasms, myelodysplastic syndromes, haemorrhagic diathesis, thrombophilia, blood disorders in diseases of other organs, 7. Rheumatic diseases, including systemic connective tissue diseases, (rheumatoid arthritis, early arthritis, systemic lupus erythematosus, Sjogren's syndrome, sarcoidosis, systemic scleroderma, idiopathic inflammatory myopathies), spondyloarthropathies, crystallopathies, erythema nodosum, arthritis associated with infectious factors, vasculitis and non-inflammatory joint and bone diseases (osteoarthritis, soft tissue rheumatism, osteoporosis, fibromyalgia), soft tissue and bone sarcomas, 8. Allergic diseases, including anaphylaxis and anaphylactic shock and angioedema, 9. Water-electrolyte and acid-base disorders: dehydration states, hyperhydration states, electrolyte imbalances, acidosis and alkalosis,   EW8. knows the principles of pharmacotherapy in patients with renal failure and renal replacement therapy;  EW9. knows the principles of nutritional and fluid therapy in various disease states;  EW14. knows the types of vascular accesses and their use, particularly in oncology;  EW38. knows the principles of health-promoting behaviour, the basics of prevention and early detection of the most common civilization diseases and the principles of screening of these diseases;  E.W42. knows the indications for treatment with blood components and the principles of their application;  F.W10. knows the most common life-threatening conditions in children and adults and the procedures to be followed in these conditions, in particular in:  1) sepsis;  2) shock;  3) haemorrhage;  4) water-electrolyte and acid-base disorders;  5) poisoning;  6) burns, hypothermia and hyperthermia;  7) other acute conditions of origin:  a) cardiovascular,  b) respiratory,  c) neurological,  d) renal,  e) oncological and haematological,  f) diabetes and endocrinology,  g) psychiatric,  h) ophthalmology,  i) laryngological,  j) gynaecology, obstetrics and urology;  F.W21. knows the principles of promoting tissue and cell donation, indications for transplantation of blood-forming organs, tissues and haematopoietic cells, complications of treatment and principles of long-term care after transplantation;  F.W22. knows the conditions where life expectancy, functional status or patient preference restricts treatment according to disease-specific guidelines; | Summarizing methods, e.g.:  - Written examination.  Formative methods, e.g.:  - Observation of student’s work,  - Evaluation of activity during classes,  - Discussion during classes,  - Case study,  - Written assessment. |
| EU1. knows how to collect the medical history of an adult patient, including an elderly person, using skills concerning the content, process and perception of communication, taking into account the biomedical and patient perspective,  EU3. knows how to take a medical history in a health and life-threatening situation using the SAMPLE scheme (S - Symptoms, A - Allergies, M - Medications, P - Past medical history, L - Last meal, E - Events prior to injury/illness),  EU4. carries out a targeted physical examination of the adult breast and prostate gland,  EU5. knows how to perform a complete and focused physical examination of an adult appropriate to the specific clinical situation, including:   1. Physical examination;   EU9. knows how to recognise the most common symptoms of disease in adults, apply diagnostic tests and interpret their results, carry out differential diagnosis, implement therapy, monitor the effects of treatment and assess the indications for specialist consultation, in particular for symptoms such as:  1) fever;  2) weakness;  3) loss of appetite;  4) weight loss;  5) shock;  6) cardiac arrest;  7) impairment of consciousness, including fainting;  8) swelling;  9) rash;  10) coughing and expectoration;  11) haemoptysis;  12) shortness of breath;  13) nasal and ear discharge;  14) chest pain;  15) heart palpitations;  16) cyanosis;  17) nausea and vomiting;  18) swallowing disorder;  19) abdominal pain;  20) presence of blood in stool;  21) constipation and diarrhoea;  22) jaundice;  23) bloating and abdominal resistance;  24) anaemia;  25) lymphadenopathy;  26) urinary dysfunction;  27) haematuria and proteinuria;  28) menstrual disorders;  29) lowered mood and anxiety;  30) memory and cognitive dysfunction;  31) headache;  32) dizziness;  33) paresis;  34) seizures;  35) back pain;  36) joint pain;  37) trauma or burn;  38) dehydration and hyperhydration;  EU14. can perform basic medical procedures and treatments, including:   * 1. the measurement and assessment of basic vital functions (temperature, pulse, blood pressure) and their monitoring using a cardio monitor and pulse oximeter;   2. various forms of inhalation therapy, and make the choice of inhaler for the patient's clinical condition;   3. measurement of peak expiratory flow measurement of peak expiratory flow;   4. oxygen therapy using non-invasive methods;   5. non-instrumented and instrumented airway clearance;   6. intravenous, intramuscular and subcutaneous drug injection;   7. drawing and securing blood for laboratory tests, including microbiology;   8. collection of arterial blood and arterialised capillary blood;   9. collection of swabs for microbiological and cytological tests;   10. urinary catheterisation of the bladder in man and woman;   11. insertion of a gastric tube;   12. rectal administration;   13. placing of resting electrocardiogram, and interpreting the results;   14. defibrillation, cardioversion and external electro-stimulation;   15. strip testing, including glucose measurement using a glucometer;   16. pleural procedures: puncture and decompression of emphysema;   17. anterior epistaxis nasal pack;   18. life-threatening ultrasound examination according to the FAST (Focussed Assessment with Sonography in Trauma) protocol or equivalent, and interpret the result;   EU15. knows how to apply personal protective equipment appropriate to the clinical situation,  EU17. knows how to participate in the process of dignified death of a patient, using the potential of palliative care,  EU18. can maintain patient medical records, including in electronic form, in accordance with the law,  EU20. knows how to provide health care services using available ICT or communication systems used in health care,  EU21. knows how to provide health education to the patient, including personalised nutritional education,  EU22. knows how to apply reasonable antibiotic therapy according to the patient's clinical condition,  EU25. can convey information to the patient, adjusting the amount and content to the patient's needs and abilities, and to supplement verbal information with models and written information, including diagrams and instructions, and to use them accordingly,  EU26. can make diagnostic and therapeutic decisions together with the patient (assess the patient's level of engagement, his/her needs and capacities, encourage the patient to take an active part in the decision-making process, discuss the advantages, disadvantages, expected outcomes and consequences of the decision) and obtain informed consent from the patient,  EU27. knows how to communicate with patients from groups at risk of economic or social disadvantage, respecting their dignity;  EU28. knows how to identify social determinants of health, indicators of the occurrence of anti-health and self-destructive behaviours and discuss them with the patient and make a note in the medical record,  EU30. knows how to apply the principles of feedback (constructive, non-judgmental, descriptive) in team collaboration,  EU31. can accept, explain and analyse his/her own role and responsibilities in the team and recognise his/her role as a doctor in the team,  EU32. knows how to obtain information from team members, respecting their diverse opinions and specialist competences, and incorporate this information into the patient's diagnostic and therapeutic plan,  EU33. knows how to discuss the patient's situation as a team, excluding subjective judgements and respecting the dignity of the patient,  EU34. knows how to use the following protocols (e.g., when transferring patient care, ordering or providing patient consultation):  1) ATMIST (A (Age), T (Time of injury), M (Mechanism of injury), I (Injury suspected), S (Symptoms/Signs), T (Treatment/Time)),  2) RSVP/ISBAR (R (Reason), S (Story), V (Vital signs), P (Plan) /I (Introduction), S (Situation), B (Background), A (Assessment), R (Recommendation)),  FU4. Knows how to recognise the most common life-threatening conditions, including using various imaging techniques,  FU12. Knows how to perform Advanced Life Support (ALS) in adults according to ERC guidelines,  FU21. Knows how to convey negative messages using the chosen protocol, e.g.:  1) SPIKES: S (Setting - appropriate setting), P (Perception - knowing the state of knowledge of the interlocutor), I (Invitation/Information - inviting to talk / informing), K (Knowledge - conveying the negative information), E (Emotions and empathy), S (Strategy and summary),  2) EMPATIA: E (Emotions), M (Place), P (Patient's perspective), A (Adequate language), T (Message content), I (Additional information), A (Annotation in documentation),  3) ABCDE: A (Advance preparation - preparing for the interview), B (Build therapeutic environment - establishing good contact with the family), C (Communicate well - conveying the negative message, taking into account communication principles), D (Dealing with reactions - dealing with difficult emotions), E (Encourage and validate emotions - the right to show emotions, redirecting them and responding appropriately, aiming to end the meeting)  - including supporting the family in the process of dying with dignity for the patient and informing the family about the patient's death,  FU22. knows how to obtain information from team members, respecting their differing opinions and specialist skills, and incorporate this information into the patient's diagnostic and therapeutic plan, and apply ATMIST, RSVP/ISBAR protocols,  GU11. knows how to determine the possibility of applying new treatments to a given patient based on current clinical findings,  HU1. knows how to measure and assess basic vital functions (temperature, pulse, blood pressure) and monitor them using a cardio monitor and pulse oximeter,  HU3. knows how to measure peak expiratory flow rate,  HU4. knows how to collect and secure blood and other biological material for laboratory tests, including microbiology,  HU5. knows how to perform intravenous, intramuscular and subcutaneous drug administration,  HU6. knows how to perform various forms of inhalation therapy and select an inhaler according to the clinical situation,  HU7. knows how to draw arterial blood and arterialised capillary blood,  HU8. knows how to perform strip tests, including measuring glucose concentration using a glucometer,  HU9. knows how to collect swabs for microbiological and cytological tests,  HU10. knows how to perform urinary catheterisation of the bladder in man and woman,  HU11. knows how to insert a gastric tube,  HU12. knows how to perform rectal administration,  HU13. knows how to perform pleural procedures: puncture and decompression of emphysema,  HU14. knows how to perform the placing of resting electrocardiogram, and interpret the results,  HU15. knows how to perform defibrillation, cardioversion and external electro-stimulation,  HU23. knows how to perform a life-threatening ultrasound examination according to the FAST protocol or equivalent and interpret the result,  HU24. knows how to apply personal protective equipment appropriate to the clinical situation,  HU25. knows how to collect the medical history of an adult patient, including an elderly person, using skills concerning the content, process and perception of communication, taking into account the biomedical and patient perspective,  HU28. knows how to perform a complete and targeted physical examination of an adult tailored to a specific clinical situation,  HU30. knows how to communicate negative messages using the chosen protocol (e.g. SPIKES, EMPATIA, ABCDE), including supporting the family in the process of dying with dignity for the patient and informing the family of the patient's death,  HU31. knows how to obtain information from team members respecting their differing opinions and specialist competencies, incorporate this information into the patient's diagnostic and therapeutic plan and use ATMIST, RSVP/ISBAR protocols,  HU33. knows how to declare the death of a patient,  HU36. knows how to perform oxygen therapy using non-invasive methods,  HU39. knows how to perform basic resuscitation (BLS) in adults, including with an automated external defibrillator, according to ERC guidelines,  HU40. knows how to perform advanced life support (ALS) in adults according to ERC guidelines,  HU41. knows how to recognise the most common life-threatening conditions, including using various imaging techniques, | Summary methods, e.g.:  - Practical exam,  - Completion of a specific task,  - Presentation.  Formative methods, e.g.:  - Observation of student’s work,  - Entrance test,  - Evaluation of activity during classes,  - Discussion during classes,  - Case study,  - Written assessment. |
| K1. respects medical confidentiality and the patient’s rights  K2. can establish and maintain a profound and respectful contact with the patient and show understanding for worldview and cultural differences,  K3. is guided by the well-being of the patient,  K4. recognizes and acknowledges their own limitations and carries out a self-assessment of deficits and learning needs,  K5. acts towards the patient on the basis of ethical principles, with the awareness of social conditions and limitations resulting from the illness,  K6. promotes pro-health behaviour,  K7. uses objective sources of information,  K8. formulates conclusions from their own measurements or observations,  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment,  K10. forms opinions on various aspects of professional activity,  K11. takes responsibility for decisions made in the course of their professional activity, including in terms of their own safety and the safety of others |  |

## SUBJECT/MODULE: Paediatrics

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW1. knows principles of natural breastfeeding, child nutrition and preventing obesity, and nutrition modifications due to diseases  EW2. knows children's disease prophylactics, including health screenings, check-ups and prophylactic vaccinations  EW3. knows environmental and epidemiological conditions, causes, symptoms, diagnosing principles and therapeutic procedure of the most common children’s diseases and their complications:   1. rachitis, tetany, water-electrolyte imbalance and acid-base imbalance 2. heart defects, myocarditis, endocarditis, pericarditis, cardiomyopathy, arrhythmia, channelopathy, heart failure, hypertension, syncopes, 3. respiratory system diseases and allergies, including respiratory system birth defects, bronchiectasis, respiratory system infections, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, atopic dermatitis, anaphylactic shock, angioedema, 4. anaemia, purpura, aplastic anaemia, childhood neoplastic diseases, including solid tumours typical for children, and primary and secondary immunodeficiency 5. acute and chronic stomach aches, vomiting, diarrhoea, constipations, gastrointestinal bleedings, peptic ulcer disease, inflammatory bowel diseases, pancreas diseases, cholestasis and liver diseases, food allergies, digestive tract birth defects, 6. acute kidney injury, chronic kidney disease, urinary tract infections, urinating disorders, urinary tract birth defects, vesicoureteral reflux disease, kidney stone disease, glomerulonephritis, renal tubulo-interstitial diseases (tubulopathy, renal tubular acidosis), genetically determined kidney diseases, nephrogenic hypertension 7. growth disorders, thyroid and parathyroid gland diseases, pituitary gland diseases, adrenal gland diseases, diabetes, obesity, puberty disorders and gonad functioning disorders, sex development disorders 8. cerebral palsy, encephalitis, meningitis, convulsions, epilepsy 9. most common childhood infectious diseases, 10. connective tissue disease, including juvenile idiopathic arthritis, systemic lupus erythematosus, dermatomyositis, vasculitis, and other causes of osteoarticular pains (noninflammatory, infectious and reactive arthritis and juvenile spondylarthritis);   EW4. knows concepts: abused child and sexually exploited child and the principles of intervention regarding such patients  EW5. concepts of mental impairment, behavioural disorders, psychosis, addictions, autism spectrum disorders, eating and excretion disorders in children.  EW14. types of vascular accesses and their usage, especially in oncology.  E.W24. issues from the field of oncology, including:  3) basics of early neoplasm detection, principles of screening tests and prophylactic actions in oncology;  6) the role of supporting treatment, including clinical nutrition;  7) principles of organising oncological patient care, including genetic counselling and multidisciplinary care;  EW33. knows and understands environmental and epidemiological conditions, causes, symptoms, diagnosing principles, therapeutic and prophylactic procedure, in the most common infectious diseases and their complications:  1) bacterial diseases, including infections of streptococcus, staphylococcus, pneumococcus, meningococcus, pertussis, tuberculosis, Lyme disease and digestive system infections;  2) viral disease, including infections of pulmonary tracts and digestive tract, viral hepatitis, Herpesviridae virus, human immunodeficiency virus and neurotropic viruses;  3) parasitic diseases, including giardiasis, amoebiasis, toxoplasmosis, malaria, toxocariasis, trichinelliasis, ascariasis, cestodiasis and enterobiasis;  4) mycosis, including candidiasis, aspergillosis and pneumocystis pneumonia;  5) hospital infections;  EW36. knows and understands causes, symptoms, diagnosing principles and therapeutic procedure in the most common ~~hereditary~~ genetically determined diseases in children  EW42. knows indication for endovascular treatment and its administering principles.  FW10. knows the most commonly occurring life-threatening states in children and the procedure principles in such states, especially in:  1) sepsis;  2) shock;  3) haemorrhage;  4) water-electrolyte and acid-base imbalances;  5) poisoning;  6)hypo- and hyperthermia;  7) other acute conditions of nature:  a) cardiovascular,  b) respiratory  d) nephric,  e) oncological and haematological,  f) diabetological and endocrinological,  FW11. knows the principles of procedure in case of suspected sexual violence.  FW21. principles of promoting donating tissues and cells, indications for blood-supplied organ, tissue and cell transplants, treatment complications and principles of post-transplant long-term care.  FW22. states, in which life expectancy, functional condition or patient's preferences limit proceeding with accordance to guidelines for a given disease. | Summarising methods e.g.:   * oral exam * written exam (test, descriptive exam – essay, report, SSQ etc.)   Formative methods, e.g.   * observation of student’s work * preliminary test * assessing engagement during lectures * passing particular activities * lecture preparation assessment * discussion during lectures * partial pass * pre-pass * case report |
| EU2. can take medical history of a child and its caretakers, using skills related to the content, process and perception of communicating, taking into account the biomedical perspective and patient's perspective  EU3. can conduct interview in a life and health threatening situation using SAMPLE pattern (S - Symptoms, A - Allergies, M - Medications, P - Past medical history, L - Last meal, E - Events prior to injury/illness);  EU6. can conduct full and targeted physical examination of a child aged from infancy to adolescence, adjusted to a given clinical situation, including:  1) general paediatric examination;  3)-musculoskeletal system examination;  EU8. can conduct health check-up, including compiling anthropometric and arterial blood pressure measurements with centile grid data and assessing puberty stage  E.U10. diagnose the most common disease symptoms in children, apply diagnostic tests and interpret their results, conduct differential diagnosis, implement treatment, monitor the effects and assess the indications for specialised consultation, especially in the case of symptoms such as:  1) fever;  2) cough and expectoration;  3) dyspnoea;  4) nose and ear secretions;  5) urinating disorders;  6) rash;  7) anaemia;  8) eating disorders;  9) growth disorders  10) convulsions and consciousness disorders;  11) palpitation;  12) fainting;  13) osteoarticular pains;  14) oedema;  15) lymphadenopathy;  16) stomach pains;  17) constipation and diarrhoea;  18) presence of blood in the stool;  19) dehydration;  20) hepatitis;  21) cyanosis;  22) headache;  EU13. can qualify patient for prophylactic vaccinations  EU14. can conduct medical procedures, including:   1. measuring and assessing basic life functions (temperature, pulse, arterial blood pressure) and monitor them using cardiac monitor and pulse oximeter; 2. various forms of inhalation therapy, and choosing an appropriate inhaler for the patient's clinical state; 3. measuring peak expiratory flow; 4. oxygen therapy using non-invasive methods; 5. clearing airways with and without tools; 6. intravenous, intramuscular and hypodermic medicine administration; 7. drawing and securing blood for laboratory testing, including microbiological testing; 8. drawing arterial blood and arterialisation of capillary blood; 9. taking swabs for microbiological and cytological tests; 10. catheterisation of bladder in ~~women and men~~; children 11. inserting stomach tube; 12. intrarectal infusions; 13. standard resting electrocardiogram, and interpreting its results; 14. strip tests, including glucose level using glucometer;   EU15. can use personal protective equipment adequate to the clinical situation  EU18. is capable of keeping patient's medical records, including in electronic form, in accordance with the law;  EU20. can provide health benefits using available IT systems or communications systems used in health care;  EU21. can educate patient about health, including educating about nutrition tailored to individual needs;  EU25. can provide patient with information, adjusting the amount and content to the patient's needs and capabilities, and supplement verbal information with models and written information, including graphs and instructions, and adjust them accordingly;  EU26. can cooperatively make diagnostic-therapeutic decisions with the patient (assess patient's engagement level, his/her needs and capabilities in this regard, encourage the patient to actively participate in the decision-making process, discuss advantages, disadvantages, expected results and consequences resulting from the decision) and obtain patient's consent;  EU27. can communicate with patients from groups threatened with economic or social exclusion, respecting their dignity;  EU28. can identify social health determinants, prevalence rates of unhealthy and self-destructive behaviours, and discus them with patients and make a note in medical records;  EU29. can identify possible violence indicators, including domestic violence, collect data focusing on verification if there is a risk of patient experiencing violence, make a note in medical records and initiate "Blue Card" procedure;  EU30. can apply feedback principles (constructive, non-judgmental, descriptive) in regard to teamwork;  EU31. can accept, explain and analyse his/her own role and degree of responsibility in a team and recognise his/her own role as a physician in a team;  EU32. can gather information from team members, respecting their diverse opinions and specialised capabilities, and take the information into consideration regarding patient's diagnostic-therapeutic plan;  EU33. can discuss the patient's situation with the team, excluding subjective judgments, and respecting the patient's dignity;  FU4. can diagnose the most common life-threatening conditions, including using various imaging techniques  GU11. can determine the applicability of new treatment options for a given patient based on current clinical examination results.  HU1. can take measurements and assess basic vital functions (temperature, pulse, arterial blood pressure) and monitor them using cardiac monitor and pulse oximeter;  HU4. can collect and secure blood samples and other biological material for laboratory tests, including microbiological tests;  HU5. can administer medicine intravenously, intramuscularly and hypodermically;  HU6. can conduct various forms of inhalation therapy and choose an appropriate inhaler for the clinical situation;  HU7. can take samples of arterial blood and arterialised capillary blood;  HU8. can conduct strip tests, including measuring glucose level using glucometer;  HU9. can take swabs for microbiological and cytological tests;  HU10. can perform bladder catheterisation in a child  HU11. can insert a stomach tube;  HU12. can perform intrarectal infusion;  HU14. can conduct standard resting electrocardiogram and interpret its result;  HU24. can use personal protective equipment adequate to the clinical situation  HU26. can take medical history of a child and its caretakers, using skills related to the content, process and perception of communicating, taking into account the biomedical perspective and patient's perspectives;  HU27. can conduct interview in a life and health threatening situation using SAMPLE pattern;  HU29. can conduct full and targeted physical examination of a child aged from infancy to adolescence, adjusted to a given clinical situation, including:  HU30. can convey unfortunate information using a given protocol (e.g. SPIKES, EMPATIA, ABCDE), including supporting family in the process of patient's dignified dying and inform the family about patient's death;  HU31. can gather information from team members, respecting their diverse opinions and specialised capabilities, and take the information into consideration regarding patient's diagnostic-therapeutic plan and apply ATMIST, RSVP/ISBAR protocols;  HU33. can pronounce a patient's death;  HU34. can conduct health check-up, including compiling anthropometric and arterial blood pressure measurements with centile grid data and assessing puberty stage;  HU35. can qualify patient for prophylactic vaccinations;  HU36. can conduct oxygen therapy using non-invasive methods;  HU37. can perform basic resuscitation (BLS) in infants and children with accordance to the ERC guidelines;  HU41. can diagnose the most common life-threatening conditions, including using various imaging techniques; | Summarising methods e.g.:   * practical exam (with simulator, mannequin) * realisation of a given task * project, presentation   Formative methods, e.g.   * observation of student’s work * preliminary test * assessing engagement during lectures * passing particular activities * lecture preparation assessment * discussion during lectures * partial pass * pre-pass * case report |
| K1. respects physician-patient privilege and patient's rights  K2. can establish and maintain deep and respectful contact with a patient, and show understanding regards cultural and worldview differences  K3. is guided by the patient's welfare  K4. notices and recognises own limitations and assesses his/her own deficits and educational needs  K5. takes actions regarding the patient based on ethical principles and with awareness of social conditions and limitations resulting from the disease  K6. propagates pro-health behaviours  K7. uses objective information sources  K8. formulates conclusions from his/her own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, and in a multicultural and multinational environment  K10. formulates opinions regarding various aspects of professional activities  K11. accepts responsibility connected to decisions made in regard to professional activity, including in the categories of own safety and of others | Summarising methods, e.g.:  - constant assessment by the teacher (observation)  Formative methods, e.g..   * observing student's work * discussion during lectures * patients' and peers' opinions |

## SUBJECT/MODULE: Neonatology with intense infant therapy

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW1. . knows principles of natural breastfeeding, child nutrition and preventing obesity, and nutrition modifications due to diseases  EW2. knows children's disease prophylactics, including health screenings, check-ups and prophylactic vaccinations knows children's disease prophylactics, including health screenings, check-ups and prophylactic vaccinations  FW2. causes, symptoms, diagnosing principles and therapeutic procedure in the case of the most common birth defects and diseases requiring surgical treatment in children.  F.W10. knows the most commonly occurring life-threatening states in children and the procedure principles in such states, especially in:  1) sepsis;  2) shock;  3) haemorrhage;  4) water-electrolyte and acid-base imbalances; | 1. Summarising methods:    * Pass Final grade based on the exercise grade result and practical skills (patient examination). 2. Formative methods:    * observation of student’s work    * assessing engagement during lectures    * lecture preparation assessment    * discussion during lectures |
| EU2. can take medical history of a child and its caretakers, using skills related to the content, process and perception of communicating, taking into account the biomedical perspective and patient's perspective  EU6. can conduct full and focused physical examination of a child aged from infancy to adolescence, adjusted to a given clinical situation, including:  1) general paediatric examination;  E.U10. diagnoses the most common disease symptoms in children, apply diagnostic tests and interpret their results, conduct differential diagnosis, implement treatment, monitor the effects and assess the indications for specialised consultation, especially in the case of symptoms such as:  1) fever;  2) cough and expectoration;  3) suffocation;  7) anaemia;  10) convulsions and consciousness disorders;  14) oedema;  18) presence of blood in the stool;  19) dehydration;  20) hepatitis;  21) cyanosis;  EU13. can qualify patient for prophylactic vaccinations  EU14. can conduct medical procedures, including:  1).measuring and assessing basic life functions (temperature, pulse, arterial blood pressure) and monitor them using cardiac monitor and pulse oximeter;  4).oxygen therapy using non-invasive methods;  5).clearing airways with and without tools;  7).drawing and securing blood for laboratory testing, including microbiological testing;  11).inserting stomach tube;  12).intrarectal infusions;  13).standard resting electrocardiogram, and interpreting its results;  15).strip tests, including glucose level using glucometer;  18).ultrasound scan in life-threatening states according to FAST protocol (Focussed Assessment with Sonography in Trauma) or its equivalent, and interpretation of its results;  EU15. can use personal protective equipment adequate to the clinical situation  EU18. is capable of keeping patient's medical records, including in electronic form, in accordance with the law;  FU4. can diagnose the most common life-threatening conditions, including using various imaging techniques  FU9. can perform basic resuscitation (Basic Life Support, BLS) in infants and children with accordance to the European Resuscitation Council guidelines (ERC);  FU10. can perform advanced resuscitating actions in infants (Newborn Life Support, NLS) and children (Paediatric Advanced Life Support, PALS) according to ERC guidelines;  GU11. can determine the applicability of new treatment options for a given patient based on current clinical examination results.  HU1. can take measurements and assess basic vital functions (temperature, pulse, arterial blood pressure) and monitor them using cardiac monitor and pulse oximeter;  HU4. can collect and secure blood samples and other biological material for laboratory tests, including microbiological tests;  HU7. can take samples of arterial blood and arterialised capillary blood;  HU8. can conduct strip tests, including measuring glucose level using glucometer;  HU9. can take swabs for microbiological and cytological tests;  HU10. can perform bladder catheterisation in women and men;  HU11. can insert a stomach tube;  HU12. can perform intrarectal infusion;  HU30. can convey unfortunate information using a given protocol (e.g. SPIKES, EMPATIA, ABCDE), including supporting family in the process of patient's dignified dying and inform the family about patient's death; | Summarising methods:  - realisation of a particular task  Formative methods:   * observation of student’s work * assessing engagement during lectures * lecture preparation assessment * discussion during lectures * partial pass |
| K1. respects physician-patient privilege and patient's rights  K2. can establish and maintain deep and respectful contact with a patient, and show understanding regards cultural and worldview differences  K3. is guided by the patient's welfare  K4. notices and recognises own limitations and assesses his/her own deficits and educational needs  K5. takes actions regarding the patient based on ethical principles and with awareness of social conditions and limitations resulting from the disease  K6. propagates pro-health behaviours  K7. uses objective information sources  K8. formulates conclusions from his/her own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, and in a multicultural and multinational environment  K10. formulates opinions regarding various aspects of professional activities  K11. accepts responsibility connected to decisions made in regard to professional activity, including in the categories of own safety and of others | Summarising methods:  - constant assessment by the teacher (observation)  Formative methods:   * observation of student’s work * discussion during lectures |

## SUBJECT/MODULE: Surgery

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW7. knows environmental and epidemiological conditions, causes, symptoms, diagnosing principles and therapeutic procedure in cases of the most common internal diseases occurring in adults, and their complications:   1. circulatory system diseases, including: coronary artery disease, heart defects, diseases of endocardium, myocardium, pericardium, heart failure (acute and chronic), arrhythmia, diseases of arterial and venous vessels, arterial hypertension: primary and secondary, pulmonary hypertension, 2. respiratory system diseases, including: respiratory tract diseases, chronic obstructive pulmonary disease, asthma, bronchiectasis, cystic fibrosis, respiratory system infections, tuberculosis, diseases of interstitial lung, pleura, and mediastinum, obstructive and central sleep apnoea, respiratory failure (acute and chronic), respiratory system tumours, 3. digestive system diseases, including: diseases of oral cavity, oesophagus, stomach and duodenum, bowels, pancreas, liver, bile ducts and gall bladder, digestive system tumours   EW9. knows principles of clinical nutrition and IV therapy in various states of disease  EW24. oncology related issues, including:  4) the option and limitations of modern neoplasm treatment (surgical methods, radiotherapy and system methods, including immunotherapy), indications for cell and gene therapy and directed and tailored treatment  6) the role of supporting treatment, including clinical nutrition;  EW42. knows indications for endovascular treatment and its administering principles  FW1. causes, symptoms, diagnosing principles and therapeutic procedure in the case of the most common birth defects and diseases requiring surgical treatment in adults   1. acute and chronic abdomen diseases, 2. chest diseases, 3. limb, head and neck diseases   FW3. knows basic classic and minimally invasive surgical techniques.  FW4. knows qualification rules for basic surgical procedures and invasive diagnostic-therapeutic procedures, and the most common complications  FW6. knows principles of surgery safety, preparing patient for a surgery, performing general and regional anaesthesia, and controlled sedation  F.W7. knows principles of after-surgery treatment with anti-pain therapy and after-surgery monitoring  FW10. knows the most commonly occurring life-threatening states in adults and the procedure principles in such states, especially in:  1) sepsis;  2) shock;  3) haemorrhage;  4) water-electrolyte and acid-base imbalances;  5) poisoning;  6)burns, hypo- and hyperthermia;  7) other acute conditions of nature:  a) cardiovascular,  b) respiratory,  c) neurological  d) nephric,  e) oncological and haematological,  f) diabetological and endocrinological,  g) psychiatric,  h) ophthalmological,  i) laryngological,  j) gynaecological, obstetric and urological;  FW13. knows invasive pain treatment methods;  FW14. knows principles of procedure with central long-lasting venous catheters;  FW17. has knowledge from the field of modernly used imaging tests, especially:   1. radiological symptomatology of basic diseases 2. instrumental methods and imaging techniques used for treatment procedures, 3. indications, counter-indications and preparing patients for specific types of imaging tests, and counter-indications for contrast agent usage   FW22. states, in which life expectancy, functional condition or patient's preferences limit proceeding with accordance to guidelines for a given disease  FW23. knows principles of putting forwards suspicion of brain death and diagnosing it | Summarising methods:  Learning programme covered in 4 years, test exam and practical exam in VI study year  Formative methods:   * pre-passes * observation of student’s work * lecture preparation assessment * assessing engagement during lectures * passing particular activities * case report * partial passes |
| EU1. can gather information from an adult, including an older person, using skills related to the content, process and perception of communicating, taking into account the biomedical perspective and patient's perspective;  EU4. can conduct focused physical examination of an adult in regard to breasts and prostate gland  EU5. can conduct full and focused physical examination of an adult adjusted to a specific clinical situation, including examinations:  1) general internal;  2) neurological;  3) gynaecological;  4) musculoskeletal system;  5) ophthalmological;  6) otorhinolaryngological;  7) geriatric;  E.U9. can recognise the most common disease symptoms in adults, apply diagnostic tests and interpret their results, conduct differential diagnosis, start therapy, monitor treatment effects and assess indications for specialist consultation, especially in the case of such symptoms:  1) fever;  2) weakness;  3) appetite loss;  4) body mass loss;  5) shock;  6) sudden cardiac arrest;  7) awareness disorder, including fainting;  8) oedema;  9) rash;  10) cough and expectoration;  11) haemoptysis;  12) dyspnoea;  13) nose and ear secretions;  14) chest pains;  15) palpitation;  16) cyanosis;  17) nausea and vomiting;  18) swallowing disorders;  19) stomach-ache;  20) presence of blood in the stool;  21) constipation and diarrhoea;  22) hepatitis;  23) abdominal bloat and resistance;  24) anaemia;  25) lymphadenopathy;  26) urination disorders;  27) haematuria and proteinuria;  28) menstruation disorders;  29) negative mood states and anxiety;  30) memory and cognitive functions disorders;  31) headache;  32) dizziness;  33) atony;  34) convulsions;  35) back pain;  36) joint pain;  37) injury or burn;  38) dehydration and overhydration;  EU14. can perform procedures and medical treatments, including:   1. pleuritic treatments: emphysema puncture and decompression;   EU15. can use personal protective equipment adequate to the clinical situation;  EU16. can pronounce a patient dead  EU18. is capable of keeping patient's medical records, including in electronic form, in accordance with the law;  EU20. can provide health benefits using available IT systems or communications systems used in health care;  EU21. can educate patient about health, including educating about nutrition tailored to individual needs;  EU22. can apply rational antibiotic therapy depending on the patient's clinical state;  EU23. can lead a conversation with a patient, with consideration of conversation pattern (conversation start, gathering information, explaining and planning, conversation end), with consideration of giving structure to such conversation and forming relations with the patient using a chosen model (e.g. guidelines of Calgara-Cambridge, Segue, Kalamazoo Consensus, Maastricht Maas Global), including using electronic means of communication, with accordance to the law;  EU24. can collect data from a patient focused on the occurrence of suicidal thoughts, in cases where it is justified;  EU25. can provide patient with information, adjusting the amount and content to the patient's needs and capabilities, and supplement verbal information with models and written information, including graphs and instructions, and adjust them accordingly;  EU26. can cooperatively make diagnostic-therapeutic decisions with the patient (assess patient's engagement level, his/her needs and capabilities in this regard, encourage the patient to actively participate in the decision-making process, discuss advantages, disadvantages, expected results and consequences resulting from the decision) and obtain patient's consent;  EU27. can communicate with patients from groups threatened with economic or social exclusion, respecting their dignity;  EU28. can identify social health determinants, prevalence rates of unhealthy and self-destructive behaviours, and discus them with patients and make a note in medical records;  EU29. can identify possible violence indicators, including domestic violence, collect data focusing on verification if there is a risk of patient experiencing violence, make a note in medical records and initiate "Blue Card" procedure;  EU30. can apply feedback principles (constructive, non-judgmental, descriptive) in regard to teamwork;  EU31. can accept, explain and analyse his/her own role and degree of responsibility in a team and recognise his/her own role as a physician in a team;  EU32. can gather information from team members, respecting their diverse opinions and specialised capabilities, and take the information into consideration regarding patient's diagnostic-therapeutic plan;  EU33. can discuss the patient's situation with the team, excluding subjective judgments, and respecting the patient's dignity;  EU34. can apply the following protocols (e.g. when transmitting care over patient, requesting or giving a medical consultation):  1) ATMIST (A (Age), T (Time of injury), M (Mechanism of injury), I (Injury suspected), S (Symptoms/Signs), T (Treatment/Time);  2) RSVP/ISBAR (R (Reason), S (Story), V (Vital signs), P (Plan)/I (Introduction), S (Situation), B (Background ), A (Assessment), R (Recommendation).  FU1. can surgically wash hands, put on sterile gloves, dress for operation or sterility-demanding procedure, prepare surgery field according to aseptic rules and participate in a surgery  FU2. can apply and change sterile dressing  FU3. can dress a simple wound, apply and change sterile surgical dressing, assess and dress a simple wound, including regional anaesthesia (topical, infiltrative), apply and remove sutures, apply and change sterile surgical dressing  FU4. can diagnose the most common life-threatening conditions, including using various imaging techniques;  FU8. can dress external bleeding  FU12. can perform advanced resuscitating actions (Advanced Life Support, ALS) in adults according to ERC guidelines;  FU21. can convey unfortunate information using a given protocol, e.g..:  1) SPIKES: S (Setting), P (Perception), I (Invitation/Information), K (Knowledge), E (Emotions and empathy), S (Strategy and summary),  2) EMPATIA: E (Emotions), M (Place), P (Patient's perspective), A (Appropriate language), T (Communication content), I (Additional information), A (Document annotation),  3) ABCDE: A (Advance preparation - conversation preparation), B (Build therapeutic environment - establishing good contact with the family), C (Communicate well - giving the bad news, considering communication principles), D (Dealing with reactions - coping with difficult emotions), E (Encourage and validate emotions - the right to show emotions, directing them and appropriate reacting, reaching end of the meeting)  - including supporting family in the process of patient's dignified dying and inform the family about patient's death;  FU22. can gather information from team members, respecting their diverse opinions and specialised capabilities, and take the information into consideration regarding patient's diagnostic-therapeutic plan, as well as apply ATMIST, RSVP/ISBAR protocols;  HU4. can collect and secure blood samples and other biological material for laboratory tests, including microbiological tests;  HU5. can administer medicine intravenously, intramuscularly and hypodermically;  HU6. can conduct various forms of inhalation therapy and choose an appropriate inhaler for the clinical situation;  HU7. can take samples of arterial blood and arterialised capillary blood;  HU8. can conduct strip tests, including measuring glucose level using glucometer;  HU9. can take swabs for microbiological and cytological tests;  HU10. can perform bladder catheterisation in women and men;  HU11. can insert a stomach tube;  HU12. can perform intrarectal infusion;  HU13. can perform pleuritic treatments: emphysema puncture and decompression;  HU14. can conduct standard resting electrocardiogram and interpret its result;  HU15. can perform defibrillation, electrical cardioversion, external electrostimulation;  HU16. can surgically wash hands, put on sterile gloves, dress for operation or sterility-demanding procedure, prepare surgery field according to aseptic rules and participate in a surgery  HU17. can apply and change sterile dressing  HU18. can assess and dress a simple wound, including regional anaesthesia (topical, infiltrative), apply and remove sutures, apply and change sterile surgical dressing;  HU19. can dress external bleeding;  HU20. can pro tempore immobilise a limb, including choosing type of immobilisation in typical clinical situations and check the limb's blood supply after application of the immobilising dressing  HU24. can use personal protective equipment adequate to the clinical situation  HU27. can conduct interview in a life and health threatening situation using SAMPLE pattern;  HU30. can convey unfortunate information using a given protocol (e.g. SPIKES, EMPATIA, ABCDE), including supporting family in the process of patient's dignified dying and inform the family about patient's death;  HU31. can gather information from team members, respecting their diverse opinions and specialised capabilities, and take the information into consideration regarding patient's diagnostic-therapeutic plan and apply ATMIST, RSVP/ISBAR protocols;  HU36. can conduct oxygen therapy using non-invasive methods;  HU41. can diagnose the most common life-threatening conditions, including using various imaging techniques | Summarising methods:  - realisation of a particular task  Formative methods:   * assessing engagement during lectures * passing particular activities |
| K1. respects physician-patient privilege and patient's rights  K2. can establish and maintain deep and respectful contact with a patient, and show understanding regards cultural and worldview differences  K3. is guided by the patient's welfare  K4. notices and recognises own limitations and assesses his/her own deficits and educational needs  K5. takes actions regarding the patient based on ethical principles and with awareness of social conditions and limitations resulting from the disease  K6. propagates pro-health behaviours  K7. uses objective information sources  K8. formulates conclusions from his/her own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, and in a multicultural and multinational environment  K10. formulates opinions regarding various aspects of professional activities  K11. accepts responsibility connected to decisions made in regard to professional activity, including in the categories of own safety and of others | Summarising methods:  - constant assessment by the teacher (observation)  Formative methods:   * observation of student’s work * discussion during lectures |

## SUBJECT/MODULE: Toxicology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW13. knows the consequences of exposing human body to chemical and physical factors and prophylactic principles  CW34. knows the basic terms of general toxicology  CW36. knows the symptoms of the most commonly occurring acute poisonings with chosen medicine groups, alcohols and other psychoactive substances, fungi and heavy metals  CW37. knows the basic principles of diagnostic and therapeutic procedure in poisonings | assessed based on active participation in exercises and two written tests (test form) covering the entire curriculum  Summarising methods:   * passing particular exercises * two written tests (test questions)   Formative methods:   * assessing engagement during lectures * lecture preparation assessment * discussion during lectures |
| CU13. can estimate toxicological danger in given age groups and in conditions of liver and kidney failure, as well as prevent medicine poisoning | assessed based on active participation in exercises and two written tests (test form)  Summarising methods:   * realisation of a particular task * passing particular exercises * two written tests (test questions)   Formative methods:   * assessing engagement during lectures * lecture preparation assessment * discussion during lectures * case report |
| K4. notices and recognises own limitations and assesses his/her own deficits and educational needs  K6. propagates pro-health behaviours  K7. uses objective information sources | constant assessment by the teacher  Summarising methods:  - constant assessment by the teacher (observation)  Formative methods:  - discussion during lectures |

## SUBJECT/MODULE: Maxillofacial surgery

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW17. Knows basics of disinfection, sterilisation and aseptic procedure  IW16. Knows basic factors of dental caries development  IW17. Knows fluoride prophylactic  IW18. Knows the relation of focal disease with oral cavity's pathological condition  IW19. Knows procedures of diagnosing infection focal points in the masticatory apparatus  IW20. Knows odontogenic soft tissue inflammation  IW21. Knows oncological prophylactic  IW22. Knows masticatory apparatus defects | Summarising methods:  - written pass, minimum 60% of correct answers in the test needed to pass. Final grades based on the  Final grade based on the exercise grade result and practical skills (patient examination).  Formative methods:   * observation of student’s work * assessing engagement during lectures * lecture preparation assessment * discussion during lectures |
| EU18. is able to keep the patient's medical records, including in electronic form, in accordance with the law;  FU1. can surgically wash hands, put on sterile gloves, put on surgical clothes for operation or procedure requiring sterility, prepare the operating area in accordance with the aseptic techniques and participate in an operation  FU4. is able to assess and treat a simple wound, including local anaesthesia (superficial, infiltrative), insert and remove surgical sutures, put on and change a sterile surgical dressing;  FU8. is able to deal with external bleeding;  IU5. can put on dressings, treat a wound, fracture;  IU11. can determine the hygiene status and frequency of caries and indicate the possibility of its prevention  IU12. knows the possibilities of preventing malocclusion in the early development of the child and also the later ;  IU13. knows the risks of fluoride prophylaxis in the form of a dietary supplement (oral tablets);  IU14. is able to cooperate with the dentist in terms of diagnosis of inflammation focus and focal disease;  IU15. is able to provide first aid in inflammatory statuses and injuries of the facial skeleton;  IU16. is able to recognize a malformation, precancerous condition and neoplasm in the facial skeleton;  IU19. is able to describe the case of a patient using specialist terminology; | Summary methods:  - implementation of a specific task  Formative methods:   * observation of the student's work * assessment of activity during classes * assessment of preparation for classes * discussion during classes * partial credits * case narrative |
| K1. respects the doctor-patient privilege and patient rights  K2. is able to establish and maintain deep and respectful contact with the patient, as well as show understanding of worldview and cultural differences  K3. is guided by the interests of the patient  K4. notices and recognizes their own limitations and makes a self-assessment of educational deficits and needs  K5. takes actions towards the patient based on ethical principles, being aware of social conditions and limitations resulting from the disease  K6. promotes health-seeking behaviours  K7. uses objective sources of information  K8. makes conclusions from their own assessments or observations  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K10. formulates opinions concerning various aspects of professional activity  K11. accepts responsibility related to decisions made in professional activity, including in terms of their own and others' safety | Summary methods:  - continuous assessment by the teacher (observation)  Formative methods:   * observation of the student's work * discussion during classes |

## SUBJECT/MODULE: Medical Law

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| DW13. Forms of violence, including domestic violence, social factors of various forms of violence and the role of the doctor in recognizing it, as well as the principles of conduct in the case of suspected violence, taking into account the "Blue Card" procedure;  GW5. Knows the legal regulations regarding the rights of the patient and the Patient Rights Ombudsman and the legal regulations relevant to the field of therapeutic activity, as well as the labour law, the basics of medicine practice and the functioning of the medical self-government;  GW6. Knows the legal regulations regarding the organization and financing of the health care system, the provision of health services financed from public funds and the principles of organization of healthcare facilities, the principles of functioning of information and communication tools and services in health care (e-health);  GW7. Knows the legal obligations of the doctor in terms of declaration of death of the patient;  GW8. Knows the legal regulations regarding medical experiments and conducting scientific research with human subjects  GW9. knows legal issues related to transplants, artificial procreation, abortion, beauty treatments, palliative care, medical futility, mental illness, infectious diseases;  GW10. Knows legal regulations regarding the doctor's obligations in the case of suspected domestic violence;  GW11. Knows the basic legal regulations in the field of pharmaceutical law, including the principles of trading medicinal and medical products, issuing prescriptions, including e-prescriptions, reimbursement of medicines, cooperation between a doctor and a pharmacist, reporting adverse drug reactions  GW12. Knows the legal regulations regarding medical confidentiality, criminal, civil and professional liability of a doctor, the rules of medical record-keeping, storing and sharing, including e-documentation, and personal data protection  GW18. Knows the concept and typology of adverse events, including medical errors and medical events, their most common causes and effects, the principles of prevention and opinion in such cases  GW20. Legal regulations in the field of passing the information about patient’s health during their lifetime and after their passing, including the field of information, people authorized to them and the principles of passing the information to other people, as well as limiting regarding passing such information; | Summary methods:  - a written exam in the form of a single-choice test with one short open-ended (descriptive) question  Formative methods:   * observation of the student's work * discussion during classes * partial credits |
| GU5. Is able to explain to people using health services their basic rights and the legal basis for providing such services;  GU6. Is able to issue medical notes and certifications, prepare opinions for the patient, authorized bodies and entities, prepare and maintain medical records (in electronic and paper form) and use information and communication tools and services in health care (e-health);  GU7. Is able to recognize behaviours and symptoms indicating the possibility of violence, including domestic violence during the examination of the patient  GU8. Is able to act in a manner that enables prevention of adverse events and ensures the preservation of quality in the protection of patient health and safety, monitor the occurrence of adverse events and react to them, as well as inform about their occurrence and analyse their causes | Summary methods:  - a written exam in the form of a single-choice test with one short open-ended (descriptive) question  Formative methods:  - observation of the student's work |
| K1. Respects the doctor-patient privilege and patient's rights  K5. Takes actions towards the patient based on ethical principles, being aware of social conditions and limitations resulting from the disease  K7. Uses objective sources of information  K10. Formulates opinions concerning various aspects of professional activity | Summary methods:  - continuous assessment by the teacher  Formative methods:  - discussion during classes |

## SUBJECT/MODULE: Dermatology and venereology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW35. Knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management in the most common dermatological diseases | Summary methods:  Exercises - oral exam  Credit for classes - written test exam  Formative methods:   * observation of the student's work * assessment of activity during classes * credit for particular activities * assessment of preparation for classes * discussion during classes |
| EU1. Is able to conduct an interview with an adult, including an elderly person, using skills related to the content, process and perception of communication, taking into account the biomedical and the patient's perspective;  EU2. Is able to conduct an interview with the child and their guardians, using skills related to the content, process and perception of communication, taking into account the biomedical and patient's perspective;  EU12. Is able to recognize conditions that require hospital treatment  EU18. Is able to keep medical records of the patient, including electronic form, in accordance with the law;  EU20. Is able to provide health services using available ICT systems or communication systems used in health care;  EU21. Is able to provide patient health education, including nutritional education tailored to individual needs; | Summary methods:  - practical exam  Formative methods:   * observation of the student's work * assessment of activity during classes * credit for particular activities * assessment of preparation for classes * discussion during classes |
| K1. Respects the doctor-patient privilege and patient's rights  K1. Respects the doctor-patient privilege and patient rights  K2. Is able to establish and maintain deep and respectful contact with the patient, as well as show understanding of worldview and cultural differences  K3. Is guided by the interests of the patient  K4. Notices and recognizes their own limitations and makes a self-assessment of educational deficits and needs  K5. Takes actions towards the patient based on ethical principles, being aware of social conditions and limitations resulting from the disease  K6. Promotes health-seeking behaviours  K7. Uses objective sources of information  K8. Makes conclusions from their own assessments or observations  K9. Implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K10. Formulates opinions concerning various aspects of professional activity  K11. Accepts responsibility related to decisions made in professional activity, including in terms of their own and others' safety | Summary methods:  - continuous assessment by the teacher  Formative methods:   * observation of the student's work * discussion during classes * opinions of patients, colleagues |

## SUBJECT/MODULE: Neurology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW3. Knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management of the most common diseases occurring in children and their complications:  8) cerebral palsy, encephalitis and meningitis, convulsions, epilepsy,  EW15. Knows the basic sets of neurological symptoms  EW16. Knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management in the case of the most commonneurological diseases and their complications:   1. headaches, including migraine, tension headache and headache syndromes, and neuralgia of the V nerve, 2. cerebrovascular diseases, in particular stroke, 3. epilepsy, 4. infections of the nervous system, in particular meningitis, Lyme disease, herpes simplex encephalitis, neurotransmission diseases, 5. dementia, in particular Alzheimer's disease, frontal dementia, vascular dementia and other dementia syndromes, 6. base ganglia diseases, in particular Parkinson's disease, 7. demyelinating diseases, in particular multiple sclerosis, 8. diseases of the neuromuscular system, in particular amyotrophic lateral sclerosis and sciatica, entrapment neuropathies 9. craniocerebral injuries, in particular concussions; 10. neoplasms   F.W10. The most common life-threatening conditions in children and the principles of management in these conditions, in particular in:  7) other acute conditions of origin:  c) neurological,  FW20. Issues in the field of neurology and neurosurgery, in particular the causes, symptoms, principles of diagnosis and therapeutic management in the case of the most common diseases of the central nervous system in the field of:  1) cerebral edema and its consequences, with particular emphasis on the emergencies,  2) other forms of intracranial tightness with their consequences,  3) craniocerebral injuries,  4) vascular defects of the central nervous system,  5) tumours of the central nervous system,  6) diseases of the spine and spinal cord; | Summary methods:  Exercises - oral exam  Credit for classes - written test exam  Formative methods:   * observation of the student's work * assessment of activity during classes * credit for particular activities * assessment of preparation for classes * discussion during classes |
| EU1. Is able to conduct an interview with an adult, including an elderly person, using skills related to the content, process and perception of communication, taking into account the biomedical and patient's perspective  EU5. Is able to perform a full and targeted physical examination of an adult adjusted to a specific clinical situation, including:   1. neurological;   E.U6. Is able to perform a full and targeted physical examination of the child from the neonatal to the adolescent period, adjusted to a specific clinical situation, including the types of examinations as follows:  2) neurological  EU12. is able to qualifyconditions requiring treatment in a hospital setting;  EU18. Is able to keep medical records of the patient, including electronic form, in accordance with the law;  HU1. Is able to measure and assess basic vital functions (temperature, heart rate, blood pressure) and monitor them using a cardiac monitor and pulse oximeter  HU4. Is able to draw and store blood and other biological material for laboratory tests, including microbiological tests;  HU5. Can perform intravenous, intramuscular and subcutaneous administration of the drug;  HU6. Can perform various forms of inhalation therapy and select an inhaler according to the clinical situation;  HU7. Can draw arterial blood and arterialized capillary blood; | Summary methods:  Exercises - oral exam  Credit for classes - written test exam  Formative methods:   * observation of the student's work * assessment of activity during classes * credit for particular activities * assessment of preparation for classes   discussion during classes |
| K1. Respects the doctor-patient privilege and patient's rights  K2. Is able to establish and maintain deep and respectful contact with the patient, as well as show understanding of worldview and cultural differences  K3. Is guided by the interests of the patient  K4. Notices and recognizes their own limitations and makes a self-assessment of educational deficits and needs  K5. Takes actions towards the patient based on ethical principles, being aware of social conditions and limitations resulting from the disease  K6. promotes health-seeking behaviours  K7. Uses objective sources of information  K8. Makes conclusions from their own assessments or observations  K9. Implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K10. Formulates opinions concerning various aspects of professional activity  K11. Accepts responsibility related to decisions made in professional activity, including in terms of their own and others' safety | Summary methods:  - continuous assessment by the teacher  Formative methods:   * observation of the student's work * discussion during classes * opinions of patients, colleagues |

## SUBJECT/MODULE: Laboratory diagnostics

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| Learning outcomes/programme contents | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW16. Principles for the diagnosis of infectious, allergic, autoimmune and cancer diseases and blood diseases, based on the antigen-antibody reaction  CW43. Practical elements of molecular biology and immunology, used in the diagnosis and treatment of oncological diseases  EW7. Knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management in the case of the most common internal medicine diseases occurring in adults and their complications:   1. cardiovascular diseases, including: ischemic heart disease, heart defects, endomyocardial diseases, heart muscle, pericardium, heart failure (acute and chronic), arterial and vascular diseases, primary and secondary hypertension, pulmonary hypertension, 2. respiratory diseases, including: airway diseases, chronic obstructive pulmonary disease, asthma, bronchiectasis~~,~~ cystic fibrosis, respiratory tract infections, tuberculosis, interstitial lung diseases, pleura, mediastinum, obstructive and central sleep apnoea, respiratory failure (acute and chronic), respiratory cancers, 3. diseases of the digestive system, including diseases of the oral cavity, oesophagus, stomach and duodenum, intestines, pancreas, liver, bile ducts and gall bladder, gastrointestinal cancers 4. diseases of the endocrine system, including diseases of the hypothalamus and pituitary gland, thyroid, parathyroid, adrenal cortex and medulla, ovaries and testes, as well as neuroendocrine tumours, multi-glandular syndromes, various types of diabetes, metabolic syndrome: obesity, dyslipidaemia and hypoglycaemia, ovarian, testicular and thyroid cancers, neuroendocrine cancers; 5. kidney and urinary tract diseases, including acute kidney injury and chronic kidney disease at all stages and their complications, glomerular (primary and secondary, including diabetic nephropathy and systemic diseases) and interstitial kidney diseases, renal hypertension, renal cyst, nephrolithiasis, urinary tract infections (upper and lower), kidney diseases during pregnancy, urinary tract neoplasms – kidney tumours, bladder, prostate 6. diseases of the hematopoietic system, including aplasia bone marrow, anaemia, granulocytopenia and agranulocytosis, thrombocytopenia, acute and chronic leukaemia, myeloma, myeloproliferative neoplasms, myelodysplastic syndromes, haemorrhagic diathesis, thrombophilia, blooddisorders in diseases of other organs 7. rheumatic diseases, including systemic connective tissue diseases (rheumatoid arthritis, early arthritis, systemic lupus erythematosus, Sjogren's syndrome, sarcoidosis, systemic scleroderma, idiopathic inflammatory myopathies), spondyloarthritis, FMS), nodular erythema, arthritis associated with infectious factors, vasculitis and non-inflammatory joint and bone diseases (degenerative disease, soft tissue rheumatism, osteoporosis, fibromyalgia), soft tissue and bone sarcomas 8. allergic diseases, including: anaphylaxis and anaphylactic shock and angioedema, 9. water-electrolyte and acid-base disorders: dehydration states, fluid overload states, electrolyte disturbances, acidosis and alkalosis   EW39. Knows the types of biological materials used in laboratory diagnostics and the rules for drawing material for testing  EW40. Knows and understands the possibilities and limitations of laboratory tests | Summary Methods  - written exam (test)  Formative methods   * observation of the student's work * assessment of activity during classes * assessment of preparation for classes * discussion during classes * partial credits * initial credits * case narrative |
| EU9. Is able to recognize the most common symptoms of the disease in adults, apply diagnostic tests and interpret their results, perform differential diagnosis, implement therapy, monitor the effects of treatment and assess the indications for specialist consultation  EU10. Is able to recognize the most common symptoms of the disease in children, apply diagnostic tests and interpret their results, perform differential diagnosis, implement therapy, monitor the effects of treatment and assess the indications for specialist consultation | Summary methods:  - written exam (test)  Formative methods   * observation of the student's work * assessment of activity during classes * assessment of preparation for classes * discussion during classes * partial credits * initial credits * case narrative * assessment of the ability to microscopically assess peripheral blood smear * assessment of the ability to verify the risk of neurodegenerative diseases based on the Erlangen Score and neuroinflammatory diseases based on isofocusing and Reibergrams |
| K1. Respects the doctor-patient privilege and patient's rights  K2. Is able to establish and maintain deep and respectful contact with the patient, as well as show understanding of worldview and cultural differences  K3. Is guided by the interests of the patient  K4. Notices and recognizes their own limitations and makes a self-assessment of educational deficits and needs  K11. Accepts responsibility related to decisions made in professional activity, including in terms of their own and others' safety | Summary methods:  - continuous assessment by the teacher (observation)  Formative methods:   * observation of the student's work * discussion during classes * opinions of colleagues |

## SUBJECT/MODULE: Emergency Medicine

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| FW4. Knows the principles of qualification and performance of basic surgical procedures and invasive diagnostic and therapeutic procedures and the most common complications  FW7. Knows the principles of postoperative treatment with analgesic therapy and postoperative monitoring  FW8. Knows the indications and principles for the use of intensive care  FW9. Knows the principles for cardiopulmonary resuscitation of newborns, children and adults  FW10. the most common life-threatening conditions in children and adults and the principles of conduct in these conditions, in particular in:  1) sepsis;  2) shock;  3) haemorrhages;  4) electrolyte and acid-base imbalance;  5) poisoning;  6) burns, hypo and hyperthermia;  7) other acute conditions of origin:  a) cardiovascular,  b) respiratory,  c) neurological,  d) renal,  e) oncological and haematological,  f) diabetological and endocrinological,  g) psychiatric,  h) ophthalmic,  i) laryngological,  j) gynaecological, obstetrical and urological;  FW12. Knows the principles of functioning of the integrated system of National Medical Rescue  FW17. Knows the issues of contemporary imaging tests  FW20. Knows the issues in the field of neurology and neurosurgery, in particular the causes, symptoms , principles of diagnosis and therapeutic management in relation to the most common CNS diseases in the field of:   1. edema cerebral and its consequences, with particular emphasis on emergencies 2. other forms of intracranial tightness with their consequences   FW23. Knows the principles of suspicion and recognition of cerebral death | Summary methods, e.g.:   * credit for exercises in the written form * written exam (multiple choice test)   Formative methods, e.g.   * observation of the student's work, assessment of activity during classes * assessment of preparation for classes * discussion during classes |
| EU3. Can conduct an interview in a situation of threat to health and life using the SAMPLE scheme (S - Symptoms, A - Allergies, M - Medications, P - Past medical history, L - Last meal, E - Events prior to injury/illness);  EU9. Is able to recognize the most common symptoms of the disease in adults, apply diagnostic tests and interpret their results, perform differential diagnosis, implement therapy, monitor the effects of treatment and assess indications for specialist consultation, in particular in the case of symptoms such as:  1) fever;  2) weakness;  3) loss of appetite;  4) weight loss;  5) shock;  6) cardiac arrest;  7) disturbance of consciousness, including fainting;  8) swelling;  9) rash;  10) cough and expectoration;  11) haemoptysis;  12) shortness of breath;  13) discharge from the nose and ear;  14) chest pain;  15) palpitations;  16) cyanosis;  17) nausea and vomiting;  18) swallowing disorders;  19) abdominal pain;  20)blood in the stool;  21) constipation and diarrhoea;  22) jaundice;  23) bloating and resistance in the abdomen;  24) anaemia;  25) lymphadenopathy;  26) urination disorders;  27) haematuria and proteinuria;  28) menstrual disorders;  29) depression and anxiety;  30) memory and cognitive impairment;  31) headache;  32) dizziness;  33) paresis;  34) convulsions;  35) back pain;  36) joint pain;  37) injury or burn;  38) dehydration and fluid overload;  E.U14. Can perform medical procedures and surgeries, including:  1) Measuring and assessing basic vital functions (temperature, heart rate, blood pressure) and monitoring them with the use of a cardio monitor and pulse oximeter;  2) Various forms of inhalation therapy, and select the inhaler for the clinical condition of the patient;  3) measurement of peak expiratory flow;  4) oxygen therapy using non-invasive methods;  5) instrument-free and instrumental opening of the airways;  6) intravenous, intramuscular and subcutaneous administration of the drug;  7) drawing and storing blood for laboratory tests, including microbiological tests;  8) collection of arterial and arterialized capillary blood;  9) taking smears for microbiological and cytological tests;  10) Male and female bladder catheterization ;  11) insertion of a nasogastric tube feeding;  12) rectal ingot;  13) standard resting electrocardiogram, and interpret its result;  14) defibrillation, electrical cardioversion and external electrostimulation;  15) dipsticks, including glucose measurement with a glucose meter;  16) pleural procedures: puncture and release of pneumothorax;  17) anterior nose tamponade;  18) ultrasound examination in life-threatening conditions according to the FAST protocol (Focused Assessment with Sonography in Trauma) or its equivalent, and interpret its result;  EU15. Is able to apply personal protective equipment adequate to the clinical situation  FU3. Is able to assess and treat a simple wound, including local anaesthesia (superficial, infiltrative), put on and remove surgical sutures, put on and change a sterile surgical dressing  FU4. Is able to recognize the most common life-threatening conditions, including the use of various imaging techniques  FU5. Is able to diagnose the most common types of fractures, especially longbones, on the basis of radiological examination  FU6. can temporarily immobilize a limb, including choosing the type of immobilization in typical clinical situations and checking the correct blood supply to the limb after applying the immobilizing dressing  FU7. Is able to immobilize the cervical and thoracolumbar spine after injury  FU8. Is able to treat external bleeding  FU9. Is able to conduct basic life support (BLS) in newborns and children in accordance with the guidelines of the European Resuscitation Council (ERC);  FU10. Is able to carry out advanced resuscitation activities in newborns (Newborn Life Support, NLS) and children (Paediatric Advanced Life Support, pals) in accordance with the ERC guidelines;  FU11. Is able to perform basic BLS resuscitation procedures in adults, including using an automatic external defibrillator in accordance with ERC guidelines  FU12. Is able to perform Advanced Life Support (ALS) activities in adults in accordance with ERC guidelines  HU2. Is able to perform instrument-free and instrumental opening of the airways;  HU8. Is able to perform dipsticks, including glucose value measurement with a glucose meter;  HU9. Is able to take smears for microbiological and cytological tests;  HU10. Is able to perform bladder catheterization in a woman and a man;  HU11. Is able to insert a nasogastric tube feeding;  HU12. Is able to perform rectal ingot;  HU13. Is able to perform pleural procedures: puncture and release of pneumothorax;  HU14. Is able to perform a standard resting electrocardiogram and interpret its result;  HU15. Is able to perform defibrillation, electrical cardioversion, external electrical stimulation;  HU17. Is able to put on and change a sterile dressing  HU18. Is able to assess and treat a simple wound, including local anaesthesia (superficially, infiltratively), put on and remove surgical sutures, put on and change a sterile surgical dressing;  HU19. Is able to deal with external bleeding;  HU20. Is able to temporarily immobilize a limb, including choosing the type of immobilization in typical clinical situations and checking the correct blood supply to the limb after applying the immobilizing dressing;  HU21. Is able to immobilize the cervical and thoracolumbar spine after injury  HU23. Is able to perform an ultrasound examination in life-threatening conditions according to the FAST protocol or its equivalent and interpret its result;  HU24. Is able to apply personal protective equipment according to the clinical situation;  HU27. Is able to conduct an interview in a situation of threat to health and life using the SAMPLE scheme  HU30. Is able to pass unsuccessful messages using the selected protocol (e.g. SPIKES, EMPATHY, ABCDE), including supporting the family in the process of dignified death of the patient and informing the family about the patient's death;  HU31. Is able to obtain information from team members respecting their diverse opinions and specialist competences, include this information in the patient's diagnostic and therapeutic plan and use ATMIST, RSVP/ISBAR protocols;  HU33. Is able to declare the patient's death  HU37. Is able to perform basic resuscitation procedures (BLS) in newborns and children in accordance with ERC guidelines;  HU38. Is able to perform advanced resuscitation activities in newborns (NLS) and children (pals) in accordance with ERC guidelines;  HU39. Is able to perform basic resuscitation procedures (BLS) in adults, including using an automatic external defibrillator, in accordance with the ERC guidelines;  HU40. Is able to perform advanced resuscitation activities (als) in adults in accordance with ERC guidelines;  HU41. Is able to recognize the most common life-threatening conditions, including the use of various imaging techniques; | Summary methods e.g.:  - practical examination with a simulator, phantom, simulated patient  Formative methods,  − observation of the student's work  − assessment of activity during classes  − completion of individual activities  − assessment of preparation for classes  − discussion during classes  − partial passes  − preliminary examinations  − case report |
| K1. Respects the doctor-patient privilege and patient's rights  K2. Is able to establish and maintain deep and respectful contact with the patient, as well as show understanding of worldview and cultural differences  K3. Is guided by the interests of the patient  K4. Notices and recognizes their own limitations and makes a self-assessment of educational deficits and needs  K5. Takes actions towards the patient based on ethical principles, being aware of social conditions and limitations resulting from the disease  K6. promotes health-seeking behaviours  K7. uses objective sources of information  K8. Makes conclusions from their own assessments or observations  K9. Implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K10. Formulates opinions concerning various aspects of professional activity  K11. Accepts responsibility related to decisions made in the field of professional activity, including in terms of their own and others' safety | Summary methods, e.g.:  - continuous assessment by the teacher (observation)  Formative methods, e.g.   * observation of the student's work * discussion during classes * opinions of patients, colleagues |

## SUBJECT/MODULE: Paediatric surgery

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| **Learning outcomes/curriculum content** | **Ways of verification and evaluation of learning outcomes achieved by the student** |
| EW42. Indications for treatment with blood components and the principles of their administration.  FW2. Causes, symptoms, principles of diagnosis, and therapeutic management of the most common congenital malformations and diseases requiring surgical treatment in children;  FW3. Basic classical and minimally invasive surgical techniques;  FW4. The student knows the principles of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures and the most common complications.  FW10. The most common life-threatening conditions in children and adults and the principles of management of these conditions, particularly in:  1) sepsis;  2) shock;  3) haemorrhages;  4) water-electrolyte and acid-base disorders;  5) poisoning;  6) burns, hypo and hyperthermia;  7) other acute conditions of origin:  (a) cardiovascular,  (b) respiratory,  (c) neurological,  (d) renal,  (e) oncology and haematology,  (f) diabetology and endocrinology,  (g) psychiatric,  (h) ophthalmology,  (i) ENT,  (j) gynaecology, obstetrics and urology; | written credit - test |
| FU1. knows how to surgically wash hands, apply sterile gloves, dress for an operation or procedure requiring asepsis, prepare the surgical field according to aseptic principles, and participate in the surgical procedure  FU2. knows how to apply and change a sterile dressing  FU3. the student is able to assess and supply a simple wound, including local anaesthesia (superficial, intrathecal), place and remove surgical sutures, place and change a sterile surgical dressing  FU4. knows how to recognize the most common life-threatening conditions, including using various imaging techniques  FU9. knows how to perform Basic Life Support (BLS) on newborns and children according to European Resuscitation Council (ERC) guidelines;  FU10. knows how to perform advanced resuscitation in newborns (Newborn Life Support, NLS) and children (Paediatric Advanced Life Support, PALS) according to ERC guidelines;  HU13. knows how to perform pleural procedures: puncture and decompression of emphysema;  HU16. knows how to surgically wash hands, apply sterile gloves, dress for an operation or procedure requiring asepsis, prepare the surgical field according to aseptic principles, and participate in the surgical procedure;  HU17. Knows how to apply and change a sterile dressing;  HU18. knows how to assess and care for a simple wound, including local anaesthesia (superficial, epidural), placement and removal of surgical sutures, placement and change of a sterile surgical dressing;  HU19. knows how to provide for external bleeding;  HU20. knows how to immobilize a limb on an ad hoc basis, including the selection of the type of immobilization in typical clinical situations, and to check the correctness of the blood supply to the limb after the immobilization dressing is applied;  HU24. knows how to apply personal protective equipment appropriate to the clinical situation;  HU41. knows how to recognize the most common life-threatening conditions, including using various imaging techniques; | credit |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences  K3. is guided by the welfare of the patient  K4. perceives and recognizes own limitations and performs self-assessment of deficits and educational needs  K5. takes action towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes health-promoting behaviour  K7. uses objective sources of information  K8. Formulates conclusions from his/her own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, including in a multicultural and multinational environment  K10. Formulates opinions on various aspects of professional activities  K11. accepts responsibility related to decisions made in the course of professional activities, including in terms of safety of oneself and others | Continuous assessment by the teacher |

## SUBJECT/MODULE: Gynaecology and obstetrics

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW6. knows the basic methods of fatal diagnosis and therapy  EW24. issues in oncology, including:   * 1. Principles of conducting targeted adult physical examinations of the breast and prostate;   FW4. knows the principles of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures and the most common complications  FW10. the most common life-threatening conditions in children and adults and the principles of management of these conditions, in particular in:  (j) gynaecology, obstetrics and urology;  FW11. rules for dealing with suspected sexual violence;  FW15 has knowledge of female reproductive functions, related disorders and diagnostic and therapeutic management, concerning in particular:   1. The menstrual cycle and its disorders, 2. pregnancy, 3. Physiological labour, pathological labour and puerperium, 4. Inflammation and cancer in the genital area, 5. birth control and assisted reproduction 6. menopause, 7. basic methods of gynaecological diagnosis and procedures. | Summary methods:  - written exam (multiple-choice test)  Formative methods:   * prerequisite credits * observation of the student's work * evaluation of activity during classes * evaluation of preparation for classes * class discussion * partial credit * case description |
| EU4. Knows how to perform a focused physical examination of an adult regarding the breast and prostate gland  EU5. Knows how to perform a complete and focused physical examination of an adult tailored to a specific clinical situation, including examination:  3) gynaecological;  FU1. Knows how to surgically wash hands, apply sterile gloves, dress for an operation or procedure requiring asepsis, prepare the surgical field according to aseptic principles, and participate in the surgical procedure  FU3. knows how to evaluate and dress a simple wound, including local anaesthesia (superficial, intrathecal), insert and remove surgical sutures, insert and change a sterile surgical dressing  FU13. knows how to apply the correct medical management of physiological pregnancy and puerperium in accordance with the standards of perinatal care  FU14. knows how to recognize the most common symptoms indicating abnormal course of pregnancy and puerperium, apply and interpret diagnostic tests, perform differential diagnosis, implement therapy, monitor the effects of treatment and assess indications for specialist consultation, especially in the case of abdominal pain, uterine contractions, bleeding from the reproductive tract, abnormal heart rate and fatal motility, hypertension  FU15. Knows how to detect and interpret fatal heart function  FU16. recognizes incipient labour and signs of abnormal labour  FU17. Knows how to assist in physiologic childbirth;  FU18. Knows how to apply the correct medical management of abnormal genital tract bleeding, absence of menstruation, pelvic pain (pelvic inflammatory disease, ectopic pregnancy), vaginitis and vulvodynia, sexually transmitted diseases;  FU19. Knows how to apply proper medical management of birth control  HU9. knows how to take swabs for microbiological and cytological tests  HU10. Knows how to perform bladder catheterization in a man and woman  HU14. knows how to perform a standard resting electrocardiogram and interpret its result  HU43. knows how to detect and interpret fatal heart function;  HU44. knows how to perform activities, assisting in physiological childbirth | Summary methods:   * practical exam (with phantom) * execution of a specific task   Formative methods:   * observation of the student's work * evaluation of activity during classes * credit for individual activities * evaluation of preparation for classes * case description |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences  K3. is guided by the welfare of the patient  K4. perceives and recognizes own limitations and performs self-assessment of deficits and educational needs  K5. takes action towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes health-promoting behaviour  K7. uses objective sources of information  K8. Formulates conclusions from his/her own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, including in a multicultural and multinational environment  K10. Formulates opinions on various aspects of professional activities  K11. accepts responsibility related to decisions made in the course of professional activities, including in terms of safety of oneself and others | Summary methods:  - Continuous assessment by the teacher (observation)  Formative methods:   * observation of the student's work * class discussion * feedback from patients, colleagues |

## SUBJECT/MODULE: Infectious diseases

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW7. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management of the most common internal medicine diseases occurring in adults, and their complications:   1. In the field of diseases of the digestive system, including: diseases, oral cavity, oesophagus, stomach and duodenum, intestines, pancreas, liver, biliary tract and gallbladder   EW16. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management of the most common neurological diseases and their complications   1. Infections of the nervous system, especially meningitis, Lyme disease, herpes encephalitis, neurotransmission diseases   EW32. knows the principles of management in case of suspicion and detection of infectious disease  EW33. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic and preventive management of the most common infectious diseases and their complications:   * 1. Bacterial diseases, including streptococcal, staphylococcal, pneumococcal and meningococcal infections, whooping cough, tuberculosis, Lyme disease and gastrointestinal infections;   2. Viral diseases, including respiratory and gastrointestinal infections, viral hepatitis, Herpesviridae, human immunodeficiency virus and neurotropic virus infections;   3. Parasitic diseases, including giardiasis, amebiasis, toxoplasmosis, malaria, toxocariasis, trichomoniasis, roundworm, tapeworm and pinworm;   4. Mycoses, including candidiasis, aspergillosis and pneumocystosis;   5. hospital-acquired infections;   EW34. rules of conduct in case of exposure to potentially infectious material  EW39. knows the types of biological materials used in laboratory diagnosis and the principles of collecting material for testing | Exercises - observation of student work, evaluation of activity during classes, evaluation of preparation for classes, discussion during classes, oral credit  Seminars - partial credit, oral credit  Summary methods Credit for classes - written test exam - one-choice test |
| EU1. Knows how to collect an interview with an adult, including an elderly person, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives  EU13. is able to qualify a patient for immunization  EU15. Knows how to apply personal protective equipment appropriate to the clinical situation  EU18. is able to maintain patient medical records, including in electronic form, in accordance with the law;  EU22. knows how to apply rational antibiotic therapy depending on the patient's clinical condition  HU1. Knows how to measure and assess basic vital functions (temperature, heart rate, blood pressure) and monitor them using a cardiac monitor and pulse oximeter  HU4. Knows how to collect and secure blood and other biological material for laboratory testing, including microbiology;  HU5. knows how to perform intravenous, intramuscular and subcutaneous drug administration;  HU6. knows how to perform various forms of inhalation therapy and make the selection of an inhaler according to the clinical situation;  HU7. knows how to draw arterialized blood and arterialized capillary blood  HU24. knows how to apply personal protective equipment appropriate to the clinical situation  HU35. knows how to qualify a patient for immunization | Exercises - observation of student work, evaluation of activity during class, evaluation of preparation for class, discussion during class, oral credit.  Performing certain standards of treatments |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences  K3. is guided by the welfare of the patient  K4. perceives and recognizes own limitations and performs self-assessment of deficits and educational needs  K5. takes action towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes health-promoting behaviour  K7. uses objective sources of information  K8. Formulates conclusions from his/her own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, including in a multicultural and multinational environment  K10. Formulates opinions on various aspects of professional activities  K11. accepts responsibility related to decisions made in the course of professional activities, including in terms of safety of oneself and others | Observation of student work, evaluation of activity during classes, evaluation of preparation for classes, discussion during classes, oral credit |

## SUBJECT/MODULE: Otolaryngology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW3. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management of the most common diseases occurring in children and their complications:   1. Respiratory diseases and allergies, including congenital respiratory defects, bronchial dilatation, respiratory infections, tuberculosis, cystic fibrosis, asthma, allergic rhinitis,   F.W3. basic classical and minimally invasive surgical techniques  F.W10. the most common life-threatening conditions in children and adults and the principles of management of these conditions, in particular in:  (i) ENT,  FW19. Has knowledge of laryngology, phoniatrics and audiology, in particular:   1. Causes, symptoms, principles of diagnosis and therapeutic management of diseases of the ear, nose, paranasal sinuses, oral cavity, pharynx and larynx in adults, 2. Diseases of the facial nerve and selected structures of the neck, 3. Principles of diagnostic and therapeutic management of mechanical injuries to the ear, nose, larynx and oesophagus, 4. Principles of diagnostic and therapeutic management of hearing; voice and speech disorders, | Summary methods  - written exam (test)  Formative methods   * observation of the student's work * evaluation of activity during classes * evaluation of preparation for classes * class discussion * partial credit |
| EU1. is able to collect an interview with an adult, including an elderly person, using content, process and perceptual communication skills, including biomedical and patient perspectives  EU2. is able to collect an interview with a child and his/her caregivers, using skills on the content, process and perception of communication, taking into account the biomedical perspective and the patient's perspective  EU5. knows how to perform a complete and focused physical examination of an adult tailored to a specific clinical situation, including examination:   * 1. otolaryngology;   E.U6. knows how to perform a complete and focused physical examination of a child from the neonatal to adolescent period adapted to a specific clinical situation, including examination:  5) otolaryngology  EU14. is able to perform medical procedures and treatments, including:   1. anterior nasal tamponade;   FU1. knows ~~how to~~ wash surgical hands, put on sterile gloves, dress for an operation or procedure requiring asepsis, prepare the surgical field according to aseptic principles, and participate in the surgical procedure  FU3. is able to evaluate and dress a simple wound, including local anaesthesia (superficial, intrathecal), place and remove surgical sutures, place and change a sterile surgical dressing  FU8. is able to provide for external bleeding  HU22. knows how to perform anterior nasal tamponade | Summary methods  - practical exam  Formative methods   * observation of the student's work * pre-test * evaluation of activity during classes * credit for individual activities * evaluation of preparation for classes * class discussion * partial credit * prerequisite credits * case description |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences  K3. is guided by the welfare of the patient  K4. perceives and recognizes own limitations and performs self-assessment of deficits and educational needs  K5. takes action towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes health-promoting behaviour  K7. uses objective sources of information  K8. Formulates conclusions from his/her own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, including in a multicultural and multinational environment  K10. Formulates opinions on various aspects of professional activities  K11. accepts responsibility related to decisions made in the course of professional activities, including in terms of safety of oneself and others | Summary methods   * Continuous assessment by the teacher (observation)   Formative methods   * observation of the student's work * class discussion * feedback from patients, colleagues |

## SUBJECT/MODULE: Palliative Medicine.

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| BW21. knows the processes of aging and changes in organ function associated with aging;  DW17. the philosophy of palliative care and its importance in the context of patient care at all stages of serious illness and death with dignity;  EW9. principles of nutritional and fluid therapy in various disease states  EW16. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management of the most common neurological diseases and their complications:   1. Headaches, including migraine, tension headache and headache syndromes, and V nerve neuralgia   EW25. knows the principles of eligibility for palliative care and therapeutic management of the most common problems of palliative medicine, including:   1. Symptomatic treatment of the most common somatic symptoms, 2. The management of cancer cachexia and the prevention and treatment of bedsores, 3. The most common emergencies in palliative medicine   EW26. knows the principles of palliative care management applied to the patient with suffering resulting from serious illness, including terminal conditions;  EW27. knows the classification of pain (acute and chronic or nociceptive, neuropathic and nociceptive) and its causes, pain assessment tools and principles of its pharmacological and non-pharmacological treatment  FW7. knows the principles of postoperative treatment with pain therapy and postoperative monitoring  FW13. invasive methods of pain management;  FW14. principles of management of central long-duration venous catheters;  IW36. understands the importance of physical activity in preventive health care and in the practice of medicine  IW37. Has knowledge of the socio-educational function of physical activity in preparing people for recreation and work | Formative methods:   * Pre-test * Observation of seminar participation. * Present a symptomatic treatment plan to the group. * Evaluation of activity during class. * Class report.   Summary Methods :  Result: Positive teacher evaluation. |
| EU16. is able to determine the death of a patient  EU17. Knows how to participate in the process of dying with dignity for the patient, using the potential of palliative care | Summary methods  - Presentation of planned treatment including qualification for pain management, pre-qualification for inpatient or home hospice stay  Formative methods,   * observation of the student's work * pre-test * evaluation of activity during classes * credit for individual activities * evaluation of preparation for classes * class discussion * partial credit |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences  K3. is guided by the welfare of the patient  K4. perceives and recognizes own limitations and performs self-assessment of deficits and educational needs  K5. takes action towards the patient based on ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes health-promoting behaviour  K7. uses objective sources of information  K8. Formulates conclusions from his/her own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, including in a multicultural and multinational environment  K10. Formulates opinions on various aspects of professional activities  K11. accepts responsibility related to decisions made in the course of professional activities, including in terms of safety of oneself and others | Summary methods  - Continuous assessment by the teacher (observation)  Formative methods   * observation of the student's work * class discussion * feedback from patients, colleagues |

## SUBJECT/MODULE: Ophthalmology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| FW3. knows basic classical and minimally invasive surgical techniques  FW4. knows the principles of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures and the most common complications  FW6. knows the principles of perioperative safety, preparing the patient for surgery, and performing local anaesthesia in ophthalmology  FW10. the most common life-threatening conditions in children and adults and the principles of management of these conditions, in particular in:  7) other acute conditions of origin:  (h) ophthalmology,  FW118. knows the issues of diseases of the organ of vision, in particular:   1. Causes, symptoms, principles of diagnosis and therapeutic management of the most common diseases of the organ of vision, 2. Ophthalmic complications of systemic diseases with their symptomatology and methods of managing these cases, 3. Surgical management of specific diseases of the eye, 4. groups of drugs used systemically, with which ophthalmic complications and contraindications are associated, and their mechanism of action | Summary methods   * Written credit at the end of the block in ophthalmology * Final written exam in the form of a test in the summer session   Formative methods, such as.   * Observation of the student's work during exercises * evaluation of activity during classes * credit for individual activities * evaluation of preparation for classes * class discussion |
| EU5. Knows how to perform a complete and focused physical examination of an adult tailored to a specific clinical situation, including examination:  5)Ophthalmology;  EU6. Knows how to perform a complete and focused physical examination of a child from the neonatal to adolescent period adapted to a specific clinical situation, including examination:  4) Ophthalmology;  E.U10. Recognize the most common symptoms of disease in children, apply diagnostic tests and interpret their results, carry out differential diagnosis, implement therapy, monitor the effects of treatment, and assess indications for specialist consultation, especially for symptoms such as:  23) red eye syndrome;  FU1. Knows how to surgically wash hands, apply sterile gloves, dress for an operation or procedure requiring asepsis, prepare the surgical field according to aseptic principles, and participate in the surgical procedure  FU3. is able to evaluate and dress a simple wound, including local anaesthesia (superficial, intrathecal), place and remove surgical sutures, place and change a sterile surgical dressing  FU20. recognizes ophthalmic conditions requiring urgent specialized care and provides initial prehospital care for physical and chemical injuries to the eye  HU42. recognize ophthalmic conditions requiring urgent specialized assistance and provide initial prehospital care in cases of physical and chemical injuries to the eye; | Summary methods  - credit with the assistant at the end of the block in ophthalmology  Formative methods   * Observation of the student's work during exercises * evaluation of activity during classes * credit for individual activities |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences  K3. is guided by the welfare of the patient  K4. perceives and recognizes own limitations and performs self-assessment of deficits and educational needs  K5. takes action towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes health-promoting behaviour  K7. uses objective sources of information  K8. Formulates conclusions from his/her own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, including in a multicultural and multinational environment  K10. Formulates opinions on various aspects of professional activities  K11. accepts responsibility related to decisions made in the course of professional activities, including in terms of safety of oneself and others | Summary methods  - Continuous assessment by the teacher (observation)  Formative methods   * observation of the student's work * class discussion * feedback from patients, colleagues |

## SUBJECT/MODULE: Clinical pharmacology

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| **Learning outcomes/curriculum content** | **Ways of verification and evaluation of learning outcomes achieved by the student** |
| CW29. knows the physiological and pathological conditions of drug absorption, metabolism and elimination by the human body  CW30. knows the basic principles of pharmacotherapy including its effectiveness  CW31. knows the more important adverse drug reactions, interactions and the problem of poly-pragmasy  CW33. knows the possibility and types of biological, cellular, gene and targeted therapies in specific diseases  CW35. knows the groups of drugs whose abuse can lead to poisoning  CW36. knows the symptoms of the most common acute poisonings with selected groups of drugs, alcohol and other psychoactive substances, fungi and heavy metals  EW8. knows the principles of pharmacotherapy in patients with renal failure and renal replacement therapy  EW41. knows the indications for implementing monitored therapy | Summary methods e.g.:  - written exam (test)  Formative methods, such as.   * observation of the student's work * evaluation of activity during classes * evaluation of preparation for classes * class discussion * partial credit * Clinical exercises - preparation of a proposal for the patient's pharmacotherapy on the basis of physical and subject examination and analysis of test results |
| CU8. performs simple pharmacokinetic calculations  CU9. selects drugs in appropriate doses to correct pathological phenomena in the human body and in individual organs  CU12. search for reliable information about medicinal products, with particular attention to the characteristics of medicinal products (SmPCs) and databases  CU13. is able to estimate the toxicological danger in certain age groups and in states of liver and kidney failure, as well as to prevent drug poisoning  EU19. Knows how to plan diagnostic, therapeutic and prophylactic management of cancer on the basis of test results and medical documentation provided  EU22. knows how to apply rational antibiotic therapy depending on the patient's clinical condition  EU26. knows how to make diagnostic and therapeutic decisions together with the patient (assess the patient's level of involvement, his/her needs and possibilities in this regard, encourage the patient to take an active part in the decision-making process, discuss the advantages, disadvantages, expected results and consequences of the decision) and obtain informed consent from the patient; | Summary methods e.g.:  - written exam (test)  Formative methods, such as.   * observation of the student's work * evaluation of activity during classes * evaluation of preparation for classes * class discussion * partial credit * Clinical exercises - preparation of a proposal for the pharmacotherapy of the patient on the basis of physical and subject examination and analysis of test results. |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences  K3. is guided by the welfare of the patient  K4. perceives and recognizes own limitations and performs self-assessment of deficits and educational needs  K5. takes action towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes health-promoting behaviour  K7. uses objective sources of information  K8. Formulates conclusions from his/her own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, including in a multicultural and multinational environment  K10. Formulates opinions on various aspects of professional activities  K11. takes responsibility related to decisions made in the course of professional activities, including in terms of safety of oneself and others | Continuous assessment by the teacher |

## SUBJECT/MODULE: Radiology and imaging diagnostics

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| CW13. knows the consequences of exposure of the human body to chemical and physical factors and the principles of prevention  FW17. has knowledge of the modern imaging studies, in particular:   1. radiological symptomatology of basic diseases, 2. instrumental methods and imaging techniques used to perform therapeutic procedures, 3. indications, contraindications and preparation of patients for different types of imaging examinations and contraindications to the use of contrast agents | 1. Summary methods:    * credit    * written exam (test) 2. Formative methods:    * observation of the student's work    * assessment of activity during classes    * assessment of preparation for classes    * discussion during classes    * prerequisite credits    * case description |
| EU14. is able to perform medical procedures and treatments, including:  12. ultrasound examination in life-threatening conditions according to the  FAST (Focussed Assessment with Sonography in Trauma) protocol or its equivalent, and interpret the result;  FU4. knows how to recognize the most common life-threatening conditions, including those using various imaging techniques  FU5. know how to recognize the most common types of broken bones, especially long bones, on the basis of radiological examination  HU41. recognize the most common life-threatening conditions, including with the use of various imaging techniques | Summary methods:  - credit  Formative methods:   * observation of student work * assessment of activity during classes * assessment of preparation for classes * discussion during classes * preliminary assessment * case description |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences  K3. is guided by the welfare of the patient  K4. recognizes and acknowledges own limitations and performs self-assessment of deficits and educational needs  K5. takes action towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes pro-health behaviour  K11. accepts responsibility related to decisions made in the course of professional activity, including in terms of safety of own and other persons | Summary methods:  - continuous assessment by the teacher (observation) |

## SUBJECT/MODULE: Nuclear Medicine

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| FW4. knows the principles of eligibility for basic surgery and invasive diagnostic and treatment procedures and the most common complications;  FW5. knows the most common complications of modern oncological treatment  FW17. knows the issues of modern imaging studies, in particular:  1) radiological symptomatology of basic diseases;  2) instrumental methods and imaging techniques used to perform medical procedures;  3) indications, contraindications and preparation of the patient for the various types of imaging examinations and contraindications to the use of contrast agents;  IW1. demonstrates knowledge of the theoretical basis and practical principles of applying procedures related to radiological protection  IW2. Demonstrates knowledge of the construction and principle of operation of equipment used in radioisotope diagnostics( gamma planar camera, SPECT-CT, PET-CT).  IW3. Demonstrates knowledge of diagnostic and treatment procedures associated with the use of open sources of radiation including:   1. radioisotopic examinations of the cardiovascular system 2. radioisotopic examinations of the endocrine glands 3. radioisotopic examinations of the digestive system 4. radioisotopic examinations of the genitourinary system 5. radioisotopic examinations of the osteoarticular system 6. radioisotopic examinations of the nervous system 7. radioisotopic examinations of the respiratory system 8. radioisotopic examinations used in the diagnosis of neoplastic diseases 9. radioisotopic examinations used in the diagnosis of inflammatory foci 10. radioisotopic examinations used in paediatrics 11. radioisotopic procedures for the treatment of benign and neoplastic thyroid diseases, joint diseases, pain symptoms in cancerous metastatic lesions to the skeletal system 12. radioisotopic treatment procedures used in other neoplastic diseases ( treatment with MIBG, monoclonal antibodies, somatostatin derivatives, treatment of neoplastic effusions into the pleural cavity, peritoneum)   IW4. Demonstrates knowledge of how to obtain artificial radioisotopes  IW5. Demonstrates knowledge of methods of quality control of measuring apparatus, radiopharmaceuticals and the course of studies  IW6. Demonstrates knowledge of the principles of extracorporeal radioisotope determinations( RIA technique, IRMA and others). | Summary methods:  - written credit  Formative methods:   * observation of the student's work * assessment of activity during classes * assessment of preparation for classes * discussion during classes |
| IU1. Demonstrates the ability to:  a) independently perform measurements of radioactive activity of radiopharmaceuticals  b) interpretation of scintigraphy studies  c) knowledge of methodology of radioisotopic treatment of benign and malignant diseases | Summary methods:  - written credit  Formative methods:   * observation of student work * assessment of activity during classes * active participation and evaluation of activity during the performance of individual procedures * assessment of preparation for classes * discussion during classes |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences  K3. is guided by the welfare of the patient  K4. recognizes and acknowledges own limitations and performs self-assessment of deficits and educational needs  K7. uses objective sources of information  K8. formulates conclusions from own measurements or observations | Summary methods:  - continuous assessment by the teacher (observation)  Formative methods:   * observation of student work * discussion during classes * feedback from patients, colleagues |

## SUBJECT/MODULE: Family Medicine

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW1. knows the principles of natural feeding, nutrition of a healthy child and prevention of obesity, and nutritional modifications due to diseases;  EW3. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic proceedings  of the most common diseases occurring in children and their complications:   1. respiratory diseases and allergies, including congenital respiratory defects, bronchial dilatation, respiratory infections, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, atopic dermatitis, anaphylactic shock, angioedema, 2. anaemia, 3. acute and chronic abdominal pain, vomiting, diarrhoea, constipation, gastrointestinal bleeding, peptic ulcer disease, 4. acute kidney injury, chronic kidney disease, urinary tract infections, urinary disorders, congenital defects of the urinary system, vesicoureteral reflux disease, kidney stones, glomerular diseases, tubulointerstitial diseases (tubulopathies, tubular acidosis), genetically determined kidney diseases, renal hypertension, 5. growth disorders, diabetes, obesity, pubertal disorders and gonadal dysfunction, 6. the most common infectious diseases of childhood.   EW7. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management of the most common internal medicine diseases occurring in adults, and their complications:   1. cardiovascular diseases, including: ischemic heart disease, heart failure (acute and chronic), arterial and venous vascular diseases, hypertension: primary and secondary 2. respiratory diseases, including: respiratory diseases, chronic obstructive pulmonary disease, asthma, respiratory infections, 3. diseases of the digestive system, including: diseases, oesophagus, stomach and duodenum, intestines, pancreas, liver, bile ducts and gallbladder, tumours of the digestive system, 4. diseases of the endocrine system, including: thyroid, parathyroid, type II diabetes, metabolic syndrome: hypoglycaemia, obesity, dyslipidaemia and hypoglycaemia 5. kidney and urinary tract diseases, including: urinary tract infections, 6. rheumatic diseases   EW16. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management of the most common neurological diseases and their complications   1. headaches, including migraine, tension headache and headache syndromes   EW21. knows the symptoms of mental disorders in the course of somatic diseases, their impact on the course of the underlying disease and prognosis, and the principles of their treatment;  EW24. knows issues in oncology, including:  3) basics of early cancer detection, principles of screening and preventive measures in oncology;  EW33. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic and preventive management of the most common infectious diseases and their complications:  1) bacterial diseases, including streptococcal, staphylococcal, pneumococcal and meningococcal infections, whooping cough, tuberculosis, Lyme disease and gastrointestinal infections;  2) viral diseases, including respiratory and gastrointestinal infections, viral hepatitis, Herpesviridae~~,~~ human immunodeficiency virus and neurotropic virus infections;  3) parasitic diseases, including giardiasis, amebiasis, toxoplasmosis, malaria, toxocariasis, trichomoniasis, roundworm, tapeworm and pinworm;  4) mycoses, including candidiasis, aspergillosis and pneumocystis;  5) nosocomial infections;  EW37. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management of the most common diseases in family physician practice;  IW30. knows and understands the possible benefits and potential harms of screening tests  IW34. knows the mechanisms as well as the goals and treatment of psychoactive substance addiction | Summary methods e.g.:   * written exam: test and descriptive questions, * presentation of a clinical case report   Formative methods, e.g.:   * observation of student work * assessment of activity during the class * credit for individual activities * discussion during classes * partial credits * case description |
| EU1. knows how to collect an interview with an adult, including an elderly person, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives  EU2. knows how to collect an interview with a child and his/her caregivers, using skills on the content, process and perception of communication, taking into account the biomedical perspective and the patient's perspective  EU4. knows how to perform a focused physical examination of an adult regarding the breast and prostate gland  EU6. Knows how to perform a complete and focused physical examination of a child from the neonatal to adolescent period adapted to a specific clinical situation, including examination:  1) general paediatric;  2) musculoskeletal system;  EU8. performs balance examinations including comparing anthropometric and blood pressure measurements with data on centile grids and assessing the degree of puberty  EU9. knows how to recognize the most common symptoms of disease in adults, apply diagnostic tests and interpret their results, carry out differential diagnosis, implement therapy, monitor the effects of treatment, and assess indications for specialist consultation, especially for symptoms such as:  1) fever;  2) weakness;  3) loss of appetite;  4) weight loss;  5) shock;  6) cardiac arrest;  7) disturbance of consciousness, including fainting;  8) edema;  9) rash;  10) coughing and expectoration;  11) haemoptysis;  12) shortness of breath;  13) nasal and ear discharge;  14) chest pain;  15) palpitations;  16) cyanosis;  17) nausea and vomiting;  18) swallowing disorders;  19) abdominal pain;  20) presence of blood in the stool;  21) constipation and diarrhoea;  22) jaundice;  23) bloating and abdominal resistance;  24) anaemia;  25) lymphadenopathy;  EU10. Knows how to recognize the most common symptoms of disease in children, apply diagnostic tests and interpret their results, carry out differential diagnosis, implement therapy, monitor the effects of treatment and assess the indications for specialist consultation, especially in the case of symptoms such as:  1) fever;  2) coughing and expectoration;  3) shortness of breath;  4) nasal and ear discharge;  5) urinary disturbances;  6) rash;  7) anaemia;  8) eating disorders;  9) growth disorders;  10) convulsions and disturbances of consciousness;  11) palpitations;  12) fainting;  13) osteoarticular pain;  14) edema;  15) lymphadenopathy;  16) abdominal pain;  17) constipation and diarrhoea;  18) presence of blood in the stool;  19) dehydration;  20) jaundice;  21) cyanosis;  22) headache;  23) red eye syndrome;  EU12. performs differential diagnosis of the most common diseases of adults and children;  EU13. assesses and describes the somatic and mental state of the patient;  EU11. knows how to recognize the symptoms of risky and harmful use of alcohol, and problematic use of other psychoactive substances, symptoms of addiction to psychoactive substances and behavioural addictions and propose correct therapeutic and medical management  EU12. knows how to recognize conditions requiring treatment in the hospital setting;  EU13. knows how to qualify a patient for immunizations  EU14; knows how to perform medical procedures and treatments including:  1) measuring and assessing basic vital functions (temperature, pulse, blood pressure) and monitoring them using a cardio monitor and pulse oximeter;  2) different forms of inhalation therapy, and make the selection of inhaler for the patient's clinical condition;  3) measurement of peak expiratory flow;  4) intravenous, intramuscular and subcutaneous drug application;  5) drawing and securing blood for laboratory tests, including microbiology;  6) collection of swabs for microbiological and cytological tests;  7) catheterization of the urinary bladder in women and men;  8) rectal infusion;  9) standard resting electrocardiogram, and interpret the result;  10) strip tests, including glucose measurement with a glucometer;  11) frontal nasal tamponade;  EU15. knows how to apply personal protective equipment appropriate to the clinical situation  EU16. knows how to determine the death of a patient  EU18. knows how to maintain a patient's medical records, including in electronic form, in accordance with the law;  EU20. knows how to provide health care services using available ICT or communication systems used in health care;  EU21. knows how to provide health education to the patient, including nutrition education tailored to individual needs;  EU22. knows how to apply rational antibiotic therapy depending on the patient's clinical condition;  EU25. knows how to convey information to the patient, adapting the amount and content to the patient's needs and abilities, and supplement verbal information with models and written information, including charts and instructions, and use them appropriately;  EU26. knows how to make diagnostic and therapeutic decisions with the patient (assess the patient's level of involvement, needs and capabilities in this regard, encourage the patient to take an active part in the decision-making process, discuss the advantages, disadvantages, expected results and consequences of the decision) and obtain informed consent from the patient;  EU27. knows how to communicate with patients from groups at risk of economic or social exclusion, respecting their dignity  EU29. knows how to identify possible indicators of violence, including domestic violence, collect an interview towards verifying whether a patient is at risk of experiencing violence, make a note in the medical record and initiate the “Blue Card” procedure;  EU30. knows how to apply the principles of feedback (constructive, non-evaluative, descriptive) in the framework of team collaboration;  EU31. is able to accept, explain and analyse his/her own role and responsibilities in the team and recognize his/her role as a physician in the team;  EU32. knows how to obtain information from team members, respecting their diverse opinions and specialised competencies, and incorporate this information into the patient's diagnostic and therapeutic plan;  EU33. knows how to discuss the patient's situation in the team excluding subjective judgments, respecting the dignity of the patient;  EU34. knows how to use the following protocols (e.g., when transferring patient care, ordering or providing patient consultation):  1) ATMIST (A (Age), T (Time of injury), M (Mechanism of injury), I (Injury suspected), S (Symptoms/Signs), T (Treatment/Time));  2) RSVP/ISBAR (R (Reason - cause, why), S (Story - patient's story), V (Vital signs ), P (Plan - plan for patient)/I (Introduction), S (Situation), B (Background), A (Assessment), R (Recommendation)).  HU1. Knows how to measure and assess basic vital functions (temperature, heart rate, blood pressure) and monitor them using a cardiac monitor and pulse oximeter  HU5. knows how to perform intramuscular and subcutaneous drug administration;  HU6. knows how to perform various forms of inhalation therapy and select an inhaler according to the clinical situation;  HU24. knows how to apply personal protective equipment appropriate to the clinical situation;  HU25. knows how to collect an interview with an adult, including an elderly person, using skills regarding the content, process and perception of communication, taking into account the biomedical perspective and the patient's perspective;  HU26. knows how to collect an interview with a child and his/her caregivers, using skills on the content, process and perception of communication, taking into account the biomedical perspective and the patient's perspective;  HU30. knows how to convey inconsolable news using a protocol of choice (e.g., SPIKES, EMPATIA, ABCDE), including supporting the family in the process of dying with dignity for the patient and informing the family of the patient's death;  HU31. knows how to obtain information from team members while respecting their diverse opinions and specialised expertise, incorporate this information into the patient's diagnostic and therapeutic plan, and apply ATMIST, RSVP/ISBAR protocols  HU33. knows how to determine the death of a patient;  HU34. knows how to perform balance examinations, including comparing anthropometric and blood pressure measurements with data on centile grids, and assessing maturation;  HU35. knows how to qualify a patient for immunizations  IU26. knows how to select screening tests according to age and gender | Summary methods e.g.:   * a test of the performance of a given skill during exercises (with, phantom) * execution of a specific task * presentation   Formative methods, e.g.:   * observation of student work * assessment of activity during classes * credit for individual activities * assessment of preparation for classes * discussion during classes * partial credit * case description |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences  K3. is guided by the welfare of the patient  K4. recognizes and acknowledges his/her own limitations and performs self-assessment of deficits and educational needs  K5. takes actions towards the patient based on ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes pro-health behaviour  K7. uses objective sources of information  K8. formulates conclusions from own measurements or observations  K9. implements the principles of professional collegiality and cooperation in a team of specialists, including with representatives of other medical professions, including in a multicultural and multinational environment  K10. Formulates opinions on various aspects of professional activity  K11. accepts responsibility related to decisions taken in the course of professional activity, including in terms of safety of their own and others | Summary methods e.g.:  - continuous assessment by the teacher (observation)  Formative methods, e.g.:   * observation of the student's work * discussion during class * opinions of patients, colleagues |

## SUBJECT/MODULE: Paediatric orthopaedics and traumatology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| FW2. knows the causes, symptoms, principles of diagnosis and therapeutic management of the most common congenital malformations and diseases requiring surgical treatment in children;  FW3. knows basic classical and minimally invasive surgical techniques  FW4. knows the principles of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures and the most common complications | Summary methods :  - written exam - test  Formative methods :   * observation of the student's work * preliminary test * credit for individual activities * assessment of preparation for classes * discussion during classes |
| EU6. knows how to carry out a complete and focused physical examination of the child from the neonatal to adolescent period adapted to the specific clinical situation, including examination of:  3. the musculoskeletal system  FU1. knows how to wash hands surgically, put on sterile gloves, dress for surgery or a procedure requiring asepsis, prepare the surgical field according to the principles of asepsis and participate in the surgical procedure  FU3. be able to assess and provide simple wound care, including local anaesthesia (superficial, intrathecal), place and remove surgical sutures, place and change a sterile surgical dressing  FU5. knows how to recognise the most common types of broken bones, especially long bones, based on radiographic examination  FU6. knows how to immobilise a limb ad hoc, including the choice of the type of immobilisation in typical clinical situations and check the correctness of the limb's blood supply after the immobilisation dressing has been applied  FU7. knows how to immobilise the cervical and thoracolumbar spine after trauma;  FU8. knows how to dress external bleeding;  HU20. knows how to immobilise a limb on an ad hoc basis, including the choice of the type of immobilisation in typical clinical situations and how to check the correctness of the limb's blood supply after the immobilisation dressing has been applied;  HU21. knows how to immobilise the cervical and thoracolumbar spine after trauma;  IU5. knows how to apply a dressing, dress a wound, dress a fracture | Summary methods :   * practical exam * fulfilment of a specific task   Formative methods :   * observation of the student's work * assessment of activity during classes * credit for individual activities * assessment of preparation for classes * discussion during classes |
| K1. respects medical confidentiality and the patient's rights  K2. is able to establish and maintain a deep and respectful contact with the patient and show understanding for world-view and cultural differences  K3. is guided by the welfare of the patient  K4. recognises and acknowledges his/her own limitations and carries out a self-assessment of deficits and learning needs  K5. acts towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes pro-health behaviour  K7. uses objective sources of information  K8. formulates conclusions from own measurements or observations  K9. implements the principles of professional collegiality and cooperation in a team of specialists, including with representatives of other medical professions, also in a multicultural and multinational environment  K10. forms opinions on various aspects of professional activity  K11. accepts responsibility connected with decisions made in the course of professional activity, including in terms of his/her own safety and the safety of others | Summary methods :  - continuous assessment by the teacher (observation)  Formative methods :   * observation of the student's work * discussion during classes * feedback from patients, colleagues |

## SUBJECT/MODULE: Rehabilitation

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW28. knows and understands the concept of disability  EW29. knows the role of medical rehabilitation and methods used in it  EW30. knows the indications for medical rehabilitation in the most common diseases | Summary methods e.g.:  - oral credit  Formative methods, e.g.:   * observation of the student's work * assessment of activity in class * assessment of the preparation for classes * discussion during classes |
| EU1. knows how to interview an adult, including an older person, using skills relating to content, process and perception of communication, taking into account the biomedical and patient perspective;  EU2. knows how to take an interview with a child and their carers, using skills relating to content, process and perception of communication, taking into account the biomedical perspective and the patient's perspective;  EU5. knows how to perform a complete and focused physical examination of an adult adapted to a specific clinical situation, including:  1. general internal medicine;  EU6. knows how to perform a complete and focused physical examination of a child from the neonatal to adolescent period adapted to a specific clinical situation, including:  1) general paediatric;  EU12. knows how to recognise conditions requiring in-patient treatment;  EU26. is able to make diagnostic and therapeutic decisions together with the patient (assess the degree of involvement of the patient, his/her needs and possibilities, encourage the patient to take an active part in the decision-making process, discuss the advantages, disadvantages, expected results and consequences of the decision) and obtain the patient's informed consent;  EU32. knows how to obtain information from members of the team, respecting their diverse opinions and specialist competences, and integrate this information into the patient's diagnostic and therapeutic plan; | Summary methods :  Formative methods :   * observation of the student's work * assessment of activity in class * assessment of the preparation for classes * discussion during classes |
| K1. respects medical confidentiality and the patient's rights  K2. is able to establish and maintain a deep and respectful contact with the patient and show understanding for world-view and cultural differences  K3. is guided by the welfare of the patient  K4. recognises and acknowledges his/her own limitations and carries out a self-assessment of deficits and learning needs  K5. acts towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes pro-health behaviour  K11. accepts responsibility related to decisions made within the scope of professional activity, including in terms of his/her own safety and the safety of others | * continuous teacher assessment (observation) |

## SUBJECT/MODULE: Orthopaedics and traumatology

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| **Learning outcomes/curriculum content** | **Ways of verification and evaluation of learning outcomes achieved by the student** |
| FW1. knows the causes, symptoms, principles of diagnosis and therapeutic management of the most common diseases requiring surgical treatment in adults   1. limb, head and neck diseases, 2. bone fractures and organ injuries;   FW3. knows basic classical and minimally invasive surgical techniques  FW4. knows the principles of qualification for basic surgery and invasive diagnostic and therapeutic procedures and the most common complications  FW6. knows the principles of perioperative safety, preparation of the patient for surgery, performance of general and local anaesthesia and controlled sedation;  FW7. knows the principles of postoperative treatment with analgesic therapy and postoperative monitoring;  FW12. knows the principles of the integrated system of National Emergency Medical Services;  FW17. has knowledge of contemporary imaging studies, in particular knows:   1. radiological symptomatology of the underlying diseases, 2. instrumental methods and imaging techniques used to perform therapeutic procedures, 3. indications, contraindications and preparation of patients for different types of imaging examinations and contraindications to the use of contrast agents; | Summary methods :  - written test exam  Formative methods :   * observation of the student's work * assessment of the preparation for classes * discussion during classes |
| FU1. is able to wash his/her hands surgically, to put on sterile gloves, to dress for an operation or a procedure requiring asepsis, to prepare the operating field according to the principles of asepsis and to participate in an operation  FU3. is able to assess and dress a simple wound, including local anaesthesia (superficial, intrathecal), place and remove surgical sutures, place and change a sterile surgical dressing  FU5. knows how to recognise the most common types of broken bones, especially long bones, based on radiographic examination  FU6. knows how to immobilise a limb ad hoc, including the choice of the type of immobilisation in typical clinical situations and check the correctness of the limb's blood supply after the immobilisation dressing has been applied  FU7. knows how to immobilise the cervical and thoracolumbar spine after an injury  FU8. knows how to dress external bleeding;  FU11. knows how to perform basic BLS resuscitation in adults, including with an automated external defibrillator according to ERC guidelines;  HU20. knows how to immobilise a limb ad hoc, including the choice of the type of immobilisation in typical clinical situations and how to check the correctness of the limb's blood supply after the immobilisation dressing has been applied;  HU21. knows how to immobilise the cervical and thoracolumbar spine after an injury;  IU5. knows how to apply dressings, dress a wound, fracture | Summary methods :  – written test exam  Formative methods :   * observation of the student's work * assessment of the preparation for classes * discussion during classes |
| K1. respects medical confidentiality and the patient's rights  K2. is able to establish and maintain a deep and respectful contact with the patient and show understanding for world-view and cultural differences  K3. is guided by the welfare of the patient  K4. recognises and acknowledges his/her own limitations and carries out a self-assessment of deficits and learning needs  K5. acts towards the patient on the basis of ethical principles, with awareness of social conditions and limitations resulting from the disease  K6. promotes pro-health behaviour  K7. uses objective sources of information  K8. formulates conclusions from own measurements or observations  K9. implements the principles of professional collegiality and cooperation in a team of specialists, including with representatives of other medical professions, also in a multicultural and multinational environment  K10. formulates opinions on various aspects of professional activity | Summary methods :   * continuous teacher assessment (observation)   Formative methods :   * observation of the student's work * discussion during classes * feedback from patients, colleagues |

## SUBJECT/MODULE: Anaesthesiology and intensive care

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW9. knows the principles of nutritional and fluid therapy in various disease states  EW14. knows the types of vascular accesses and their use, particularly in oncology  FW6. knows the principles of perioperative safety, preparing the patient for surgery, administering general and local anaesthesia and controlled sedation;  FW7. knows the principles of postoperative treatment with pain therapy and postoperative monitoring;  FW8. knows the indications and principles of intensive care;  FW9. knows the current guidelines for cardiopulmonary resuscitation of neonates, children and adults;  F.W10. the most common life-threatening conditions in children and adults and the principles of management of these conditions, particularly in:  1) sepsis;  2) shock;  3) haemorrhage;  4) water-electrolyte and acid-base disorders;  5) poisoning;  6) burns, hypo and hyperthermia;  7) other acute conditions of origin:  (a) cardiovascular,  (b) respiratory,  (c) neurological,  (d) renal  (e) oncological and haematological,  (f) diabetes and endocrinology,  (g) psychiatric,  (h) ophthalmology  (i) ENT,  (j) gynaecology, obstetrics and urology;  FW13. knows invasive methods of pain management;  FW14. knows the management of central long-standing venous catheters;  FW22. knows the conditions in which life expectancy, functional status or patient preference limits management according to the guidelines defined for the disease;  FW23. knows the principles of raising suspicions and detecting brain death | Summary methods e.g.:   * credit for written exercises * written examination (multiple-choice test)   Formative methods, e.g.:   * observation of the student during CPR * assessment of activity in class * assessment of the preparation for classes * discussion during classes |
| EU3. Knows how to collect information in health and life-threatening situations with the application of SAMPLE scheme (S - Symptoms, A - Allergies, M - Medications, P - Past medical history, L - Last meal, E - Events prior to injury/illness;  EU9. Knows how to detect the most frequent symptoms of diseases in adults, apply diagnostic tests and interpret their results, conduct differential diagnosis, implement a therapy, monitor treatment effects and assess indications for specialist consultation, in particular, in case of such symptoms as:  1) fever;  2) attenuation;  3) loss of appetite;  4) loss of body weight;  5) shock;  6) cardiac arrest;  7) loss of consciousness, including fainting;  8) oedema;  9) rash;  10) cough and expectoration;  11) haemoptysis;  12) dyspnoea;  13) nose and ear discharge;  14) pain in one's chest;  15) heart palpitations;  16) cyanosis;  17) nausea and vomits;  18) swallowing disorders;  19) stomach-ache;  20) presence of blood in the stool;  21) constipation and diarrhoea;  22) jaundice;  23) bloating and resistance in the abdominal cavity;  24) anaemia;  25) lymphadenopathy;  26) urination disorders;  27) haematuria and proteinuria;  28) menstrual disorders;  29) depressed mood and anxiety;  30) memory and cognitive disorders;  31) headache;  32) dizziness;  33) paresis;  34) convulsions;  35) back pain;  36) joint pain;  37) injury or burn;  38) dehydration and overhydration;  EU14. can perform basic medical procedures and treatments, including:  1) measurement and assessment of basic vital functions (temperature, heart rate, blood pressure) and monitoring them using a cardio monitor and a pulse oximeter;  2) various forms of inhalation therapy, and select the inhaler according to the patient's clinical condition;  3) peak expiratory flow measurement;  4) oxygen therapy using non-invasive methods;  5) non-instrumental and instrumental unblocking of the respiratory tract;  6) intravenous, intramuscular and subcutaneous drug administration;  7) collecting and securing blood for laboratory tests, including microbiological ones;  8) collection of arterial blood and arterialized capillary blood;  9) taking swabs for microbiological and cytological tests;  10) urinary bladder catheterization in women and men;  11) insertion of a gastric tube;  12) rectal enema;  13) standard resting electrocardiogram, and interpret its result;  14) defibrillation, electrical cardioversion and external electrostimulation;  15) strip tests, including measurement of glucose concentration using a glucometer;  16) pleural procedures: puncture and decompression of pneumothorax;  17) anterior nasal tamponade;  18) ultrasound examination in life-threatening conditions according to the FAST (Focused Assessment with Sonography in Trauma) protocol or its equivalent, and interpret its result;  EU15. knows how to use personal protective equipment appropriate to the clinical situation  FU4. is able to recognize the most common life-threatening conditions, including the use of various imaging techniques;  FU11. knows how to perform basic BLS resuscitation procedures in adults, including the use of an automatic external defibrillator in accordance with ERC guidelines  FU12. is able to conduct advanced life support (Advanced Life Support, ALS) in adults in accordance with ERC guidelines  HU2. knows how to perform non-instrumental and instrumental unblocking of the respiratory tract  HU8. knows how to perform strip tests, including measuring glucose concentration using a glucometer;  HU9. knows how to take swabs for microbiological and cytological tests;  HU10. knows how to perform urinary bladder catheterization in women and men;  HU13. knows how to perform pleural procedures: puncture and decompression of pneumothorax;  HU14. is able to perform a standard resting electrocardiogram and interpret its result;  HU15. can perform defibrillation, electrical cardioversion, and external electrostimulation  HU24. knows how to use personal protective equipment appropriate to the clinical situation  HU30. is able to convey unfavourable news using a selected protocol (e.g. SPIKES, EMPATHY, ABCDE), including supporting the family in the process of the patient's dying with dignity and informing the family about the patient's death;  HU31. is able to obtain information from team members while respecting their diverse opinions and specialist competences, take this information into account in the patient's diagnostic and therapeutic plan and use ATMIST, RSVP/ISBAR protocols  HU33. can determine the patient's death  HU39. knows how to perform basic life support (BLS) in adults, including using an automatic external defibrillator, in accordance with ERC guidelines;  HU40. knows how to conduct advanced life support (ALS) in adults in accordance with ERC guidelines; | Assessment of the work and actions of the student during classes  Practical exam on phantoms |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with the patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs  K5. takes action towards the patient based on ethical principles, being aware of the social determinants and limitations resulting from the disease  K6. promotes healthy behaviours  K7. uses objective sources of information  K8. formulates conclusions based on own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K10. formulates opinions on various aspects of professional activity  K11. accepts responsibility for decisions made in the course of professional activity, including in terms of the safety of oneself and other people | Continuous assessment by the teacher  Observation of student work  Discussion during classes  Opinions of colleagues |

## SUBJECT/MODULE: Anaesthesiology and intensive therapy in children and teens

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW3. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic procedures of the most common diseases occurring in children and their complications:   1. rickets, tetany, water-electrolyte and acid-base disorders 2. heart defects, inflammation of the myocardium, endocardium and pericardium, cardiomyopathy, cardiac arrhythmias, heart failure, arterial hypertension, pulmonary hypertension, syncope, 3. respiratory diseases and allergies, including congenital defects of the respiratory system, bronchiectasis, respiratory infections, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, atopic dermatitis, anaphylactic shock, angioedema 4. anaemia, bleeding disorders, bone marrow failure, childhood cancers, including solid tumours typical of childhood, primary and secondary immunodeficiencies 5. acute and chronic abdominal pain, vomiting, diarrhoea, constipation, gastrointestinal bleeding, peptic ulcer disease, inflammatory bowel diseases, pancreatic diseases, cholestasis and liver diseases, food allergies, congenital defects of the gastrointestinal tract, 6. acute kidney injury, chronic kidney disease, urinary tract infections, urination disorders, congenital defects of the urinary tract, vesicoureteral reflux disease, nephrolithiasis, glomerular diseases, tubulointerstitial diseases (tubulopathies, tubular acidosis), genetic kidney diseases conditioned, renal hypertension 7. growth disorders, thyroid and parathyroid diseases, adrenal gland diseases, diabetes, obesity, puberty disorders, gonadal dysfunctions, 8. cerebral palsy, encephalitis and meningitis, 9. the most common infectious diseases of childhood, 10. systemic connective tissue diseases, including juvenile idiopathic arthritis, systemic lupus erythematosus, dermatomyositis, systemic vasculitis, and other causes of osteoarticular pain (non-inflammatory, infectious and reactive arthritis and juvenile spondyloarthropathies)   FW4. knows the principles of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures as well as the most common complications  FW6. knows the principles of perioperative safety, patient preparation for surgery, general and local anaesthesia and controlled sedation  FW9. Knows current guidelines for cardiopulmonary resuscitation of newborns, children and adults  FW10. knows the most common life-threatening conditions in children and adults and the rules of conduct in these conditions, in particular in:  1) sepsis;  2) shock;  3) haemorrhages;  4) water-electrolyte and acid-base disorders;  5) poisonings;  6) burns, hypo and hyperthermia;  7) other acute conditions of origin:  a) cardiovascular,  b) respiratory,  c) neurological,  d) renal,  e) oncology and haematology,  f) diabetes and endocrinology,  g) psychiatric,  h) ophthalmology,  i) ENT,  j) gynaecological, obstetric and urological;  FW13. knows invasive methods of pain treatment;  FW14. knows the principles of dealing with long-term central venous catheters;  FW22. knows conditions in which the duration of life, functional status or preferences of the patient limit treatment in accordance with the guidelines specified for a given disease;  FW13. knows invasive methods of pain treatment;  FW14. knows the principles of dealing with long-term central venous catheters;  FW22. knows conditions in which the duration of life, functional status or preferences of the patient limit treatment in accordance with the guidelines specified for a given disease; | Formative methods:  − Entrance test  − Observation of participation in the seminar.  − Presenting the symptomatic treatment plan to the group.  − Assessment of activity during classes.  − Report from classes.  Summary methods:  - Result: Positive assessment |
| EU3. Knows how to collect information in health and life-threatening situations with the application of SAMPLE scheme (S - Symptoms, A - Allergies, M - Medications, P - Past medical history, L - Last meal, E - Events prior to injury/illness;  EU9. Knows how to detect the most frequent symptoms of diseases in adults, apply diagnostic tests and interpret their results, conduct differential diagnosis, implement a therapy, monitor treatment effects and assess indications for specialist consultation, in particular, in case of such symptoms as:  1) fever;  2) attenuation;  3) loss of appetite;  4) loss of body weight;  5) shock;  6) cardiac arrest;  7) loss of consciousness, including fainting;  8) oedema;  9) rash;  10) cough and expectoration;  11) haemoptysis;  12) dyspnoea;  13) nose and ear discharge;  14) pain in one's chest;  15) heart palpitations;  16) cyanosis;  17) nausea and vomits;  18) swallowing disorders;  19) stomach-ache;  20) presence of blood in the stool;  21) constipation and diarrhoea;  22) jaundice;  23) bloating and resistance in the abdominal cavity;  24) anaemia;  25) lymphadenopathy;  26) urination disorders;  27) haematuria and proteinuria;  28) menstrual disorders;  29) depressed mood and anxiety;  30) memory and cognitive disorders;  31) headache;  32) dizziness;  33) paresis;  34) convulsions;  35) back pain;  36) joint pain;  37) injury or burn;  38) dehydration and overhydration  EU10. is able to recognize the most common symptoms of the disease in children, use diagnostic tests and interpret their results, perform differential diagnosis, implement therapy, monitor the effects of treatment and assess indications for specialist consultation, in particular in the case of symptoms such as:   * 1. fever;   2. cough and expectoration;   3. dyspnoea;   4. nose and ear discharge;   5. urination disorders;   6. rash;   7. anaemia;   8. eating disorders;   9. growth disorders;   10. convulsions and disturbances of consciousness;   11. heart palpitations;   12. fainting;   13. osteoarticular pain;   14. swelling;   15. lymphadenopathy;   16. stomach-ache;   17. constipation and diarrhoea;   18. presence of blood in the stool;   19. dehydration;   20. jaundice;   21. cyanosis;   22. headache;   23. red eye syndrome   EU15. knows how to use personal protective equipment appropriate to the clinical situation  FU4. is able to recognize the most common life-threatening conditions, including the use of various imaging techniques  FU9. knows how to conduct basic life support (Basic Life Support, BLS) in newborns and children in accordance with the guidelines of the European Resuscitation Council (ERC);  FU10. knows how to conduct advanced life support in newborns (Newborn Life Support, NLS) and children (Paediatric Advanced Life Support, PALS) in accordance with ERC guidelines  HU2. knows how to perform non-instrumental and instrumental unblocking of the respiratory tract  HU8. knows how to perform strip tests, including measuring glucose concentration using a glucometer;  HU9. knows how to take swabs for microbiological and cytological tests;  HU10. knows how to perform urinary bladder catheterization in women and men  HU13. knows how to perform pleural procedures: puncture and decompression of pneumothorax;  HU14. is able to perform a standard resting electrocardiogram and interpret its result;  HU15. can perform defibrillation, electrical cardioversion, and external electrostimulation  HU24. knows how to use personal protective equipment appropriate to the clinical situation  HU30. is able to convey unfavourable news using a selected protocol (e.g. SPIKES, EMPATHY, ABCDE), including supporting the family in the process of the patient's dying with dignity and informing the family about the patient's death;  HU31. is able to obtain information from team members while respecting their diverse opinions and specialist competences, take this information into account in the patient's diagnostic and therapeutic plan and use ATMIST, RSVP/ISBAR protocols  HU33. can determine the patient's death  HU37. knows how to conduct basic life support (BLS) in newborns and children in accordance with ERC guidelines;  HU38. is able to conduct advanced life support in newborns (NLS) and children (PALS) in accordance with ERC guidelines | * discussion during classes * partial credits |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with the patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs  K5. takes action towards the patient based on ethical principles, being aware of the social determinants and limitations resulting from the disease  K6. promotes healthy behaviours  K7. uses objective sources of information  K8. formulates conclusions based on own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K10. formulates opinions on various aspects of professional activity  K11. accepts responsibility for decisions made in the course of professional activity, including in terms of the safety of oneself and other people | Summary methods e.g.:  - continuous assessment by the teacher (observation)  Formative methods, e.g.  − observation of the student's work  − discussion during classes  − opinions of patients and colleagues |

## SUBJECT/MODULE: Neurosurgery

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning effects achieved by the student** |
| FW1. knows and understands the causes, symptoms, principles of diagnosis and therapeutic procedures in the most common diseases requiring surgical treatment in adults   * 1. acute and chronic abdominal diseases,   2. chest diseases,   3. diseases of the limbs and head and neck,   4. bone fractures and organ injuries,   5. cancer;   FW3. knows basic classic and minimally invasive treatment techniques  FW4. Knows the principles of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures as well as the most common complications  FW6. knows the principles of perioperative safety, patient preparation for surgery, general and local anaesthesia and controlled sedation;  FW7. knows the principles of postoperative treatment, including analgesic therapy and postoperative monitoring  FW8. knows the indications and principles of intensive therapy  FW13. knows invasive methods of pain treatment  FW17. knows the issues of contemporary imaging tests, in particular:   * 1. radiological symptomatology of basic CNS diseases   2. instrumental methods and imaging techniques used to perform therapeutic procedures in the field of medical neurosurgery   3. indications, contraindications and preparation of patients for particular types of imaging tests and contraindications to the use of contrast agents   FW20. Knows issues in the field of neurology and neurosurgery, in particular causes, symptoms, principles of diagnosis and therapeutic procedures in relation to the most common diseases of the central nervous system in the field of:   1. cerebral edema and its consequences, with particular emphasis on emergencies 2. other forms of intracranial compartment with their consequences 3. craniocerebral injuries 4. vascular defects of the central nervous system 5. cancerous tumours of the central nervous system 6. diseases of the spine and spinal cord   FW23. Knows the principles of suspecting and recognizing brain death | * assessment of activity during classes * discussion during classes * completion of individual activities * comprehensive credits |
| FU3. Is able to assess and treat a simple wound, including local anaesthesia (superficial, infiltration), applying and removing surgical sutures, applying and changing a sterile surgical dressing  FU5. is able to recognize the most common types of fractures, especially long bones, based on radiological examination  FU8. Can relieve external bleeding  HU4. is able to collect and secure blood and other biological material for laboratory tests, including microbiological ones  HU5. knows how to administer drugs intravenously, intramuscularly and subcutaneously;  HU6. knows how to perform various forms of inhalation therapy and select an inhaler appropriate to the clinical situation;  HU7. can collect arterial blood and arterialized capillary blood  HU13. knows how to perform pleural procedures: puncture and decompression of pneumothorax;  HU14. is able to perform a standard resting electrocardiogram and interpret its result;  HU15. can perform defibrillation, electrical cardioversion, external electrostimulation;  HU16. is able to wash surgical hands, put on sterile gloves, dress for an operation or procedure requiring sterility, prepare the surgical field in accordance with the principles of asepsis and participate in the surgical procedure;  HU17. knows how to apply and change a sterile dressing  HU18. is able to assess and treat a simple wound, including local anaesthesia (superficial, infiltration), applying and removing surgical sutures, applying and changing a sterile surgical dressing;  HU19. knows how to treat external bleeding;  HU20. is able to temporarily immobilize a limb, including choosing the type of immobilization in typical clinical situations and checking the proper blood supply to the limb after applying the immobilization dressing  HU24. knows how to use personal protective equipment appropriate to the clinical situation | * observation of the student's work * assessment of activity during classes * completion of individual activities * assessment of preparation for classes * discussion during classes |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with the patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs  K5. takes action towards the patient based on ethical principles, being aware of the social determinants and limitations resulting from the disease  K6. promotes healthy behaviours  K7. uses objective sources of information  K8. formulates conclusions based on own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K10. formulates opinions on various aspects of professional activity  K11. accepts responsibility for decisions made in the course of professional activity, including in terms of the safety of oneself and other people | * continuous assessment by the teacher * observation of the student's work * discussion during classes |

## SUBJECT/MODULE: Urology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW24. knows issues in the field of oncology, including:  10) principles of conducting targeted physical examinations of adults regarding the breast and prostate gland;  FW3. knows basic classic and minimally invasive treatment techniques  FW4. knows the principles of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures as well as the most common complications  FW10. knows the most common life-threatening conditions in children and adults and the rules of conduct in these conditions, in particular in:  7) other acute conditions of origin:  j) gynaecological, obstetric and urological;  FW16. knows male reproductive functions and related disorders as well as diagnostic and therapeutic procedures | Summary methods  - written exam (multiple choice test)  Formative methods  − observation of the student's work  − assessment of activity during classes  − assessment of preparation for classes  − discussion during classes |
| FU1. is able to wash surgical hands, put on sterile gloves, dress for surgery or a procedure requiring sterility, prepare the surgical field in accordance with the principles of asepsis and participate in the surgical procedure  FU3. is able to assess and treat a simple wound, including local anaesthesia (superficial, infiltration), applying and removing surgical sutures, applying and changing a sterile surgical dressing | Formative methods  − observation of the student's work  − assessment of activity during classes  − assessment of preparation for classes  − discussion during classes |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with the patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs  K5. takes action towards the patient based on ethical principles, being aware of the social determinants and limitations resulting from the disease  K6. promotes healthy behaviours  K7. uses objective sources of information  K8. formulates conclusions based on own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K10. formulates opinions on various aspects of professional activity  K11. accepts responsibility for decisions made in the course of professional activity, including in terms of the safety of oneself and other people | Summary methods.:  - continuous assessment by the teacher (observation)  Formative methods.  − observation of the student's work  − discussion during classes  − opinions of patients and colleagues |

## SUBJECT/MODULE: Oncology

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| EW14. knows the types of vascular access and their use, especially in oncology;  E.W16. environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic procedures in the case of the most common neurological diseases and their complications:  10) cancer;  EW24. knows issues in the field of oncology, including:  1) genetic, environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic procedures in the most common cancers and their complications;  2) the most common paraneoplastic syndromes and their clinical symptoms;  3) basics of early detection of cancer, principles of screening tests and preventive measures in oncology;  4) possibilities and limitations of modern cancer treatment (surgical methods, radiotherapy and systemic methods, including immunotherapy), indications for cell and gene therapies as well as targeted and personalized treatment;  5) early and long-term complications of oncological treatment;  6) the role of supportive treatment, including nutritional treatment;  7) principles of organizing care for oncological patients, including genetic counselling and multidisciplinary care;  8) practical aspects of statistics in oncology, including principles of interpretation of clinical trial results;  9) the most important scales and classifications used in oncology;  10) principles of conducting targeted physical examinations of adults regarding the breast and prostate gland;  11) principles of planning diagnostic and therapeutic procedures  and preventive treatment of cancer based on test results and provided medical documentation;  EW25. knows the principles of qualification for palliative care and therapeutic procedures in the most common problems of palliative medicine, including:   1. symptomatic treatment of the most common somatic symptoms, 2. management of cancer cachexia and prevention and treatment of pressure ulcers, 3. the most common emergencies in palliative medicine   EW26. knows the principles of palliative care applied to a patient suffering from a serious illness, including a terminal condition  EW27. knows the classification of pain (acute and chronic or nociceptive, neuropathic and nociplastic) and its causes, pain assessment tools and the principles of its pharmacological and non-pharmacological treatment  F.W1. causes, symptoms, principles of diagnosis and therapeutic procedures in cases of the most common diseases requiring surgical treatment in adults:  5) cancer;  FW5. knows the most common complications of modern oncological treatment  FW10. knows the most common life-threatening conditions in children and adults and the rules of conduct in these conditions, in particular in:  7) other acute conditions of origin:  e) oncology and haematology,  FW14. knows the principles of dealing with long-term central venous catheters  FW22. knows conditions in which the duration of life, functional status or preferences of the patient limit treatment in accordance with the guidelines specified for a given disease  GW21. knows the epidemiology of cancer diseases, in particular their nutritional, environmental and other lifestyle conditions influencing oncological risk;  GW22. knows the importance of screening tests in oncology, including the risks associated with diagnostic tests of healthy people, and the health benefits in relation to the most common cancer diseases in the Republic of Poland | Summary methods  Passing lectures and seminars based on the final test  Formative methods  − observation of the student's work  − assessment of activity during classes  − assessment of preparation for classes  − discussion during classes |
| EU1. is able to conduct an interview with an adult, including an older person, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives  EU2. is able to conduct an interview with a child and his/her caregivers, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives  EU19. is able to plan diagnostic, therapeutic and preventive procedures in the field of cancer treatment based on test results and provided medical documentation  HU1. is able to measure and assess basic vital functions (temperature, heart rate, blood pressure) and monitor them using a cardiac monitor and a pulse oximeter  HU4. knows how to collect and secure blood and other biological material for laboratory tests, including microbiological ones;  HU5. knows how to administer drugs intravenously, intramuscularly and subcutaneously;  HU6. knows how to perform various forms of inhalation therapy and select an inhaler appropriate to the clinical situation;  HU7. can collect arterial blood and arterialized capillary blood | Summary methods  Practical assessment of exercises  Formative methods  − observation of the student's work  − assessment of activity during classes  − assessment of preparation for classes |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with the patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs  K5. takes action towards the patient based on ethical principles, being aware of the social determinants and limitations resulting from the disease  K6. promotes healthy behaviours  K7. uses objective sources of information  K8. formulates conclusions based on own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K10. formulates opinions on various aspects of professional activity  K11. accepts responsibility for decisions made in the course of professional activity, including in terms of the safety of oneself and other people | Continuous assessment performed by the teacher |

## SUBJECT/MODULE: Psychiatry

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| DW12. knows problematic use of psychoactive substances and addictions to them, as well as behavioural addictions, methods of conducting short interventions for people who use psychoactive substances with problems, mechanisms of addiction development, goals and methods of treating addicted people, as well as effective preventive strategies, psychosomatic disorders occurring in people who are in a close relationship with a person addicted and methods of therapeutic treatment  DW14. knows the concept of norm and pathology of sexual behaviour  EW17. knows the general symptomatology of mental disorders and the principles of their classification according to the main classification systems;  EW18. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic procedures in cases of the most common psychiatric diseases and their complications:  1) schizophrenia,  2) affective disorders  3) neurotic and adaptive disorders  4) eating disorders,  5) disorders related to the use of psychoactive substances,  6) sleep disorders  7) dementia  8) personality disorders  EW19. knows the issues of suicidal behaviour  EW20. knows the specificity of mental disorders and their treatment in children, including teenagers, and the elderly  EW21. knows the symptoms of mental disorders in the course of somatic diseases, their impact on the course of the underlying disease and prognosis, and the principles of their treatment;  EW22. knows the issues of human sexuality and basic disorders related to it;  EW23. knows the legal regulations regarding mental health protection, with particular emphasis on the rules of admission to a psychiatric hospital  FW10. knows the most common life-threatening conditions in children and adults and the rules of conduct in these conditions, in particular in:  7) other acute conditions of origin:  g) psychiatric,  FW11. knows the rules of conduct in the event of suspected sexual violence | Summary methods  - written exam (test - written test exam (50 questions, 5 answers to choose from)  Formative methods  − observation of the student's work  − assessment of activity during classes  − assessment of preparation for classes  − discussion during classes  − preliminary examinations  − case report |
| EU1. is able to conduct an interview with an adult, including an older person, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives  EU2. is able to conduct an interview with the child and his/her caregivers, using skills related to the content, process and perception of communication, taking into account the biomedical perspective and the patient's perspective;  EU7. knows how to conduct a psychiatric examination of a patient and assess his mental state  EU11. is able to recognize symptoms of risky and harmful use of alcohol and problematic use of other psychoactive substances, symptoms of addiction to psychoactive substances and behavioural addictions, and propose appropriate therapeutic and medical procedures  EU18. is able to keep patient medical records, including in electronic form, in accordance with legal regulations;  EU24. collect an interview with the patient regarding the occurrence of suicidal thoughts, if justified  HU1. is able to measure and assess basic vital functions (temperature, heart rate, blood pressure) and monitor them using a cardio monitor and a pulse oximeter  HU4. knows how to collect and secure blood and other biological material for laboratory tests, including microbiological ones;  HU5. knows how to administer drugs intravenously, intramuscularly and subcutaneously;  HU6. knows how to perform various forms of inhalation therapy and select an inhaler appropriate to the clinical situation;  HU7. can collect arterial blood and arterialized capillary blood  HU32. is able to conduct a psychiatric examination of a patient and assess his mental state | Summary methods  - practical exam  Formative methods,  − observation of the student's work  − assessment of activity during classes  − discussion during classes  − case report |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with the patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs  K5. takes action towards the patient based on ethical principles, being aware of the social determinants and limitations resulting from the disease  K6. promotes healthy behaviours  K7. uses objective sources of information  K8. formulates conclusions based on own measurements or observations  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K10. formulates opinions on various aspects of professional activity  K11. accepts responsibility for decisions made in the course of professional activity, including in terms of the safety of oneself and other people | Summary methods  - continuous assessment by the teacher (observation)  Formative methods  − observation of the student's work  − discussion during classes  − opinions of patients and colleagues |

## SUBJECT/MODULE: Court medicine

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| GW5. Knows the legal regulations regarding patient rights and the Patient Ombudsman, as well as legal regulations relevant to medical activities in the field of labour law, the basics of practicing the medical profession and the functioning of the medical self-government  GW7. Knows the doctor's legal obligations in terms of confirming the patient's death  GW8. Knows the legal regulations regarding medical experiments and conducting scientific research involving humans  GW9. Knows legal regulations regarding transplants, artificial procreation, termination of pregnancy, aesthetic treatments, palliative care, persistent therapy, mental illnesses, infectious diseases  GW12. Knows the legal regulations regarding medical secrecy, criminal, civil and professional liability of a doctor, the rules of maintaining, storing and sharing medical records, including e-documentation, and the protection of personal data  GW13. Knows and understands the concept of violent death and sudden death and the differences between trauma and injuries  GW14. Knows the legal basis and rules of conduct of a doctor when examining a corpse at the place where it was discovered; and forensic medical examination of the body  GW15. Knows the principles of forensic medical diagnosis and opinions in cases involving infanticide and reconstruction of the circumstances of a road accident  GW16. rules for preparing opinions as an expert  GW17. Knows the principles of judicial and medical opinions regarding: ability to participate in procedural activities; biological effect and health damage  GW18. Knows the concept and typology of adverse events, including medical errors and medical events, their most common causes, effects, principles of prevention and opinions in such cases  GW19. Knows the principles of collecting material for toxicological and hemogenetic tests | Summary methods:  − written assessment of exercises (test)  − written exam (test consisting of 100 questions - each question has 4 answers, including one correct)  Formative methods  − observation of the student's work  − entrance test  − assessment of activity during classes  − completion of individual activities  − assessment of preparation for classes  − discussion during classes  − partial credits  − preliminary examinations  − case descriptions |
| GU5. Is able to explain to people using ~~medical~~ health services their basic rights and the legal basis for providing these services  GU6. is able to issue medical certificates and medical certificates, prepare opinions for the patient, authorized bodies and entities, prepare and maintain medical records (in electronic and paper form) and use information and communication tools and services in health care (e-health);  GU7. When examining a patient, he or she can recognize behaviours and symptoms indicating the possibility of violence, including domestic violence  GU9. Able to collect blood for toxicological tests and secure material for hemogenetic tests  IU27. Is able to find appropriate legal acts containing standards regarding the provision of health services and practicing the medical profession | Summary methods e.g.:  − practical exam (with a simulator, phantom)  − implementation of a specific task  − project, presentation  Formative methods  − observation of the student's work  − entrance test  − assessment of activity during classes  − completion of individual activities  − assessment of preparation for classes  − discussion during classes  − partial credits  − preliminary examinations  − case descriptions |
| K1. respects medical confidentiality and patient rights  K7. uses objective sources of information  K8. formulates conclusions based on own measurements or observations  K10. formulates opinions on various aspects of professional activity | Summary methods:  - continuous assessment by the teacher (observation)  Formative methods:  − observation of the student's work  − discussion during classes  − opinions of patients and colleagues |

## SUBJECT/MODULE: Medical ethics

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| DW7. knows the specificity and role of verbal communication (conscious construction of messages) and non-verbal communication (e.g. facial expressions, gestures, management of silence and space)  DW14. knows the concept of norm and pathology of sexual behaviour;  DW15. knows the concept of humanism in medicine and the main concepts, theories and ethical principles serving as a general framework for the proper interpretation and analysis of moral and medical issues  DW17. knows the philosophy of palliative care and its importance in the context of patient care at all stages of serious illness and death with dignity  IW33. Knows the rules for protecting intellectual property or content related to copyright protection | Summary methods e.g.:  - oral examination  Formative methods:  − observation of the student's work  − assessment of activity during classes  − completion of individual activities  − assessment of preparation for classes  − discussion during classes  − partial credits  − preliminary examinations  − case reports |
| DU1. Follows ethical patterns in professional activities, including planning and carrying out the therapeutic process in accordance with ethical values ​​and the idea of ​​humanism in medicine;  DU2. can recognize the ethical dimension of medical decisions and distinguish factual from normative aspects  DU7. can develop and improve self-awareness, self-reflection and self-care, and reflect with others on their own way of communicating and behaving;  DU8. is able to recognize their own emotions and manage them in relationships with other people in order to perform work effectively despite their own emotional reactions;  DU9. can describe and critically evaluate their own behaviour and way of communicating, taking into account the possibility of alternative behaviour;  DU10. can use open and closed questions, paraphrase, clarification, internal and final summaries, signalling, active listening (e.g. capturing and recognizing signals sent by the interlocutor, verbal and non-verbal techniques) and facilitation (encouraging the interlocutor to speak) appropriate to the situation;  DU11. can adapt the method of verbal communication to the patient's needs, expressing himself in an understandable way and avoiding medical jargon;  DU12. can recognize and analyse difficult situations and challenges related to communication, including crying, strong emotions, anxiety, interruptions of speech, embarrassing and sensitive issues, silence, withdrawal, aggressive and demanding behaviour, and deal with them in a constructive way;  DU13. is able to establish contact with the patient and the person accompanying the patient in order to build an appropriate relationship (e.g. 4 Habits Model: Invest in the beginning), Demonstrate empathy, Recognize the patient's perspective , Invest in the end);  DU14. is able to look at the situation from the patient's perspective, building the appropriate context of the conversation and using the elicitation method, and then include it in building verbal messages  GU7. is able to recognize, during patient examination, behaviours and symptoms indicating the possibility of violence, including domestic violence | Summary methods:  − practical exam  − implementation of a specific task  − project, presentation  Formative methods:  − observation of the student's work  − assessment of activity during classes  − completion of individual activities  − assessment of preparation for classes  − discussion during classes  − partial credits  − preliminary examinations  − case reports |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with the patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs  K5. takes action towards the patient based on ethical principles, being aware of the social determinants and limitations resulting from the disease  K9. implements the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment  K11. accepts responsibility for decisions made in the course of professional activity, including in terms of the safety of oneself and other people | Summary methods:  - continuous assessment by the teacher (observation)  Formative methods:  − observation of the student's work  − discussion during classes  − opinions of patients and colleagues |

## SUBJECT/MODULE: Geriatrics

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| **Learning outcomes/programme contents** | **Methods of verifying and assessing the learning outcomes achieved by the student** |
| BW21. knows the processes occurring during the aging of the body and changes in the functioning of organs related to aging  EW9. knows the principles of nutritional treatment and fluid therapy in various disease states;  EW10. knows the course and symptoms of the aging process, as well as the principles of comprehensive geriatric assessment and interdisciplinary care for older people  EW11. knows the differences in clinical symptoms, diagnosis and therapy of the most common diseases occurring in older people  EW12. knows and understands the risks associated with hospitalization of older people  EW13. knows and understands the basic principles of organizing care for an elderly person and the burden placed on a caregiver of an elderly person;  EW16. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic procedures in the case of the most common neurological diseases and their complications   1. dementia, in particular Alzheimer's disease, frontal dementia, vascular dementia and other dementia syndromes, 2. diseases of the basal ganglia, in particular Parkinson's disease   EW20. knows the specificity of mental disorders and their treatment in older people | Summary methods:  − oral examination  − passing the case  Formative methods:  − observation of the student's work  − assessment of activity during classes  − completion of individual activities  − assessment of preparation for classes  − discussion during classes  − case report |
| EU1. is able to conduct an interview with an adult, including an older person, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives  EU5. is able to perform a complete and focused physical examination of an adult adapted to a specific clinical situation, including examination of:  7) geriatric;  EU9. is able to recognize the most common symptoms of the disease in adults, apply diagnostic tests and interpret their results, perform differential diagnosis, implement therapy, monitor the effects of treatment and assess indications for specialist consultation, in particular in the case of symptoms such as:  1) fever;  2) attenuation;  3) loss of appetite;  4) loss of body weight;  5) shock;  6) cardiac arrest;  7) loss of consciousness, including fainting;  8) oedema;  9) rash;  10) cough and expectoration;  11) haemoptysis;  12) dyspnoea;  13) nose and ear discharge;  14) pain in one's chest;  15) heart palpitations;  16) cyanosis;  17) nausea and vomits;  18) swallowing disorders;  19) stomach-ache;  20) presence of blood in stool;  21) constipation and diarrhoea;  22) jaundice;  23) bloating and resistance in the abdominal cavity;  24) anaemia;  25) lymphadenopathy;  26) urination disorders;  27) haematuria and proteinuria;  28) menstrual disorders;  29) depressed mood and anxiety;  30) memory and cognitive disorders;  31) headache;  32) dizziness;  33) paresis;  34) convulsions;  35) back pain;  36) joint pain;  37) injury or burn;  38) dehydration and overhydration;  EU12. knows how to qualify conditions requiring treatment in hospital conditions;  EU13. knows how to qualify the patient for vaccinations  EU16. can determine the patient's death  EU18. is able to keep patient medical records, including in electronic form, in accordance with legal regulations;  EU19. is able to plan diagnostic, therapeutic and preventive procedures in the field of cancer treatment based on test results and provided medical documentation;  EU20. knows how to provide health services using available teleinformation systems or communication systems used in health care;  EU21. is able to provide health education to the patient, including nutritional education tailored to individual needs;  EU22. knows how to apply rational antibiotic therapy depending on the patient's clinical condition;  EU23. is able to conduct a conversation with a patient, taking into account the conversation pattern (starting the conversation, collecting information, explaining and planning, ending the conversation), including giving structure to such a conversation and shaping the relationship with the patient using a selected model (e.g. Calgary-Cambridge, Segue, Kalamazoo Consensus guidelines, Maastricht Maas Global), including by means of electronic communication;  EU24. is able to interview the patient regarding the occurrence of suicidal thoughts, in case the above is justified;  EU25. is able to provide information to the patient, adjusting its quantity and content to the patient's needs and capabilities, and supplement verbal information with models and written information, including charts and instructions, and use them appropriately;  EU26. is able to make diagnostic and therapeutic decisions together with the patient (assess the patient's level of involvement, needs and possibilities in this area, encourage the patient to take an active part in the decision-making process, discuss the advantages, disadvantages, expected results and consequences resulting from the decision) and obtain an informed patient consent;  EU27. is able to communicate with patients from groups at risk of economic or social exclusion, respecting their dignity;  EU28. is able to identify social determinants of health, indicators of the occurrence of anti-health and self-destructive behaviours, discuss them with the patient and make notes in the medical documentation;  EU29. is able to identify possible indicators of violence, including domestic violence, conduct an interview to verify whether there is a risk that the patient is experiencing violence, make a note in the medical documentation and initiate the "Blue Card" procedure;  EU30. knows how to apply the principles of providing feedback (constructive, non-judgmental, descriptive) as part of team cooperation;  EU31. is able to assume, explain and analyse their own role and scope of responsibility in the team and recognize their role as a doctor in the team;  EU32. is able to obtain information from team members, respecting their diverse opinions and specialist competences, and take this information into account in the patient's diagnostic and therapeutic plan;  EU33. is able to discuss the patient's situation in the team, excluding subjective assessments, while respecting the patient's dignity;  EU34. knows how to apply the following protocols (e.g. when transferring patient care, ordering or providing patient consultation):  1) ATMIST (A (Age), T (Time of injury), M (Mechanism of injury), I (Injury suspected), S (Symptoms/Signs), T (Treatment/Time);  2) RSVP/ISBAR (R (Reason), S (Story), V (Vital signs), P (Plan)/I (Introduction), S (Situation), B (Background), A (Assessment), R (Recommendation).  HU1. is able to measure and assess basic vital functions (temperature, heart rate, blood pressure) and monitor them using a cardio monitor and a pulse oximeter  H.U4. collect and secure blood and other biological material for laboratory tests, including microbiological ones;  HU5. knows how to administer drugs intravenously, intramuscularly and subcutaneously;  HU6. knows how to perform various forms of inhalation therapy and select an inhaler appropriate to the clinical situation;  HU7. knows how to collect arterial blood and arterialized capillary blood;  HU25. is able to conduct an interview with an adult, including an older person, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives | Summary methods:  - preparation and completion of the patient's medical history  Formative methods:   * observation of student work * assessment of activity during classes * completing individual activities * assessment of preparation for classes * discussion during classes * case report |
| K1. respects medical confidentiality and patient rights  K5. takes action towards the patient based on ethical principles, being aware of the social conditions and limitations resulting from the disease  K6. promotes healthy behaviours  K7. uses objective sources of information  K8. formulates conclusions based on own measurements or observations  K11. accepts responsibility for decisions made in the course of professional activity, including in terms of the safety of oneself and other people | Summary methods:  - continuous assessment by the teacher (observation)  Formative methods:   * observation of student work * discussion during classes * opinions of patients and colleagues |

# DIMENSION, PRINCIPLES SAND FORM OF ORGANIZATION OF PROFESSIONAL PRACTICE

Total number of ECTS points to be obtained during professional practice: 20

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|  | Name of practice | Number of hours |
| After year 1: | Nursing practice | 120 |
| After year II: | Practice in out-patient healthcare (family MD)  Practice in the scope of emergency medical aid | 120 |
| After year III: | Practice in the scope of internal diseases, | 120 |
| After year IV: | Practice in the scope of paediatrics  Practice in the scope of surgery | 120 |
| After year V: | Practice in the scope of gynaecology and obstetrics  Practice in the scope of intensive care | 120 |

**I year**

During the first year of studies, students are required to complete nursing practice (120 teaching hours) in the clinics of University Teaching Hospitals or departments of Provincial and District Hospitals. The practice is conducted on the basis of an agreement concluded with the Hospital Management.

The Head of the Clinic (Head of the Department) or a supervisor designated by him supervises the implementation of the goals of the student's practice. The student practice should be supervised by a nurse with appropriate professional training. Student's absence can only be justified by sick leave.  
An illness longer than 1 week necessitates extending the practice for an appropriate period of time.

It is necessary for the student to keep a practice record sheet in which he or she accounts for individual days and notes the activities performed.

The aim of the practice is:

* getting acquainted with the hospital's organizational system,
* familiarizing the student with the work of a nurse in the process of treating a patient,
* acquiring skills in performing care procedures (e.g. measuring temperature, heart rate, blood pressure, number of respirations, toileting the patient, feeding the patient, preparing medicines for administration to the patient),
* learning the principles of performing subcutaneous and intramuscular injections and preparing an intravenous infusion.

## SUBJECT/MODULE: nursing practice

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| **Learning outcomes** | **Verification methods** |
| EU14. performs medical procedures and treatments, including:  1) measurement and assessment of basic vital functions (temperature, heart rate, blood pressure) and monitoring them using a cardio monitor and a pulse oximeter;  2) various forms of inhalation therapy, and select the inhaler according to the patient's clinical condition;  3) peak expiratory flow measurement;  4) oxygen therapy using non-invasive methods;  5) non-instrumental and instrumental unblocking of the respiratory tract;  6) intravenous, intramuscular and subcutaneous drug administration;  7) collecting and securing blood for laboratory tests, including microbiological ones;  8) collection of arterial blood and arterialized capillary blood;  9) taking swabs for microbiological and cytological tests;  10) urinary bladder catheterization in women and men;  11) insertion of a gastric tube;  12) rectal enema;  13) standard resting electrocardiogram, and interpret its result;  14) defibrillation, electrical cardioversion and external electrostimulation;  15) strip tests, including measurement of glucose concentration using a glucometer;  16) pleural procedures: puncture and decompression of pneumothorax;  17) anterior nasal tamponade;  18) ultrasound examination in life-threatening conditions according to the FAST (Focused Assessment with Sonography in Trauma) protocol or its equivalent, and interpret its result; | Assessment by the practice supervisor |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with a sick patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs | Continuous assessment |

**II year**

During the second year of studies, students are obliged to complete practice in the field of outpatient treatment (90 teaching hours) and in the field of emergency care (30 teaching hours).

The practice is conducted on the basis of an agreement concluded with the management of the unit. The head of the clinic or his/her designated supervisor supervises the implementation of the student's practice goals. The student practice should be supervised by a doctor with appropriate professional training. Student's absence can only be justified by sick leave. An illness longer than 1 week necessitates extending the practice for an appropriate period of time.

It is necessary for the student to keep a practice record sheet in which he accounts for individual days and notes the activities performed.

The aim of the practice is:

* getting acquainted with the scope and nature of the work of the clinic or doctor's office and the method of keeping documentation,
* participating in the implementation of preventive programs,
* getting acquainted with the methods of conducting health education,
* familiarizing yourself with the rules for writing prescriptions and all types of certificates and referrals
* becoming acquainted with the organization of work of the emergency department (keeping documentation, determining temporary incapacity for work, referring patients to hospital),
* deepening knowledge about providing first aid to the sick.

## SUBJECT/MODULE: practice in outpatient care (family doctor) and emergency care

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| **Learning outcomes** | **Verification methods** |
| GW4. knows the concept and functions of public health, the concept, tasks and methods of health promotion, the concept of quality in health care and factors influencing it, the structure and organization of the health care system at the national and global level, as well as the impact of economic conditions on health care opportunities,  GW5. knows the legal regulations regarding patient rights and the Patient Ombudsman as well as legal regulations relevant to medical activities in the field of labour law, the basics of practicing the medical profession and the functioning of the medical self-government  GW6. knows the legal regulations regarding the organization and financing of the health care system, the provision of health services financed from public funds and the principles of organizing healthcare entities, the principles of operation of information and communication tools and services in health care (e-health);  DW7. understands the specificity and role of verbal communication (conscious construction of messages) and non-verbal communication (e.g. facial expressions, gestures, management of silence and space)  FW9. Knows current guidelines for cardiopulmonary resuscitation of newborns, children and adults  IW7. Knows the causes, diagnosis and treatment of sudden cardiac arrest  IW8. Knows the principles of using automatic defibrillators (AED).  IW9. Knows the causes, diagnosis and treatment of acute respiratory failure.  IW11. Knows the rules of providing assistance in choking, aspiration and hanging  IW12. Knows the principles of first aid for fractures and injuries.  IW13. Knows the principles of assessing basic life functions  IW14. Knows the rules of care and nursing of an unconscious patient  IW15. Knows the principles of providing vascular access to peripheral veins and applying dressings | Assessment by the practice supervisor |
| EU1.is able to conduct an interview with an adult, including an older person, using skills related to the content, process and perception of communication, taking into account the biomedical perspective and the patient's perspective;  EU2. is able to conduct an interview with a child and his/her caregivers, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives  EU8. conducts balance tests, including comparing anthropometric and blood pressure measurements with data on percentile charts, and assessing the degree of puberty advancement  EU18. maintains patient medical records, including in electronic form, in accordance with legal regulations;  FU3. is able to assess and treat a simple wound, including local anaesthesia (superficial, infiltration), applying and removing surgical sutures, applying and changing a sterile surgical dressing  IU5. Knows how to apply dressings, treat wounds and fractures  IU6. Is able to perform basic care procedures for patients - positioning, physical therapy, blood pressure measurement | Pass granted by the practice supervisor |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with a sick patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs | Continuous assessment by the teacher |

**III year**

During the third year of studies, students are obliged to practice (120 teaching hours) in the field of internal diseases in the clinics of University Teaching Hospitals or departments of Provincial and District Hospitals. The practice is conducted on the basis of an agreement concluded with the Hospital Management.

The Head of the Clinic (Head of the Department) or a supervisor designated by him supervises the implementation of the goals of the student's practice. The student practice should be supervised by a doctor with appropriate professional training. Student's absence can only be justified by sick leave. An illness longer than 1 week necessitates extending the practice for an appropriate period of time.

It is necessary for the student to keep a practice record sheet in which he accounts for individual days and notes the activities performed.

The aim of practice at the Department of Internal Medicine is:

* supplementing information about the organization of the Internal Department (Clinic) and the organizational connection of the Department (Clinic) with open treatment,
* improving subjective and physical examination skills,
* learning the principles of first aid, resuscitation and reanimation,
* deepening the ability to recognize and differentiate basic disease entities, with particular emphasis on acute cases,
* becoming familiar with the principles of interpretation of laboratory, radiological and pathological test results,
* participation in medical rounds.

## SUBJECT/MODULE: practice at the Department of Internal Diseases

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| **Learning outcomes** | **Verification methods** |
| E.W7. knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic procedures in the case of the most common internal diseases occurring in adults and their complications:   * 1. circulatory system diseases, including: ischemic heart disease, heart defects, diseases of the endocardium, heart muscle, pericardium, heart failure (acute and chronic), arterial and venous diseases, hypertension: primary and secondary, pulmonary hypertension,   2. respiratory diseases, including: respiratory diseases, chronic obstructive pulmonary disease, asthma, bronchiectasis, cystic fibrosis, respiratory infections, tuberculosis, diseases of the interstitial lungs, pleura, mediastinum, obstructive and central sleep apnoea, respiratory failure (acute and chronic) , cancers of the respiratory system, diseases of the digestive system, including: diseases of the oral cavity, oesophagus, stomach and duodenum, intestines, pancreas, liver, bile ducts and gallbladder, | Pass granted by the practice supervisor |
| EU1. is able to conduct an interview with an adult, including an older person, using skills related to the content, process and perception of communication, taking into account the biomedical and patient perspectives  EU4. is able to perform a complete and focused physical examination of an adult regarding the breast and prostate gland | Pass granted by the practice supervisor |
| K1. Abide by the doctor’s confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with a sick patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs | Continuous assessment by the teacher |

**IV year**

During the fourth year, students are obliged to practice 60 teaching hours in the field of paediatrics at the Department or Clinic of Paediatric Diseases of University or District Hospitals, and practice 60 teaching hours that the student is to complete in the field of surgery. Students can complete practices in clinics and wards of the University Teaching Hospital, Provincial Hospitals, District Hospitals, or hospitals subordinate to the Ministry of Interior and Administration or the Ministry of National Defence. Practices may take place based on an agreement concluded between the Dean and the Director of the relevant hospital and the Head of the Clinic (Head of the Department). The student practice supervisor may be a specialist doctor working in the Clinic (Department) with appropriate professional preparation (specialization).

Students can complete practice in hospitals outside Poland, subject to applicable rules.

Each student is obliged to keep a practice record sheet in which daily activities performed are recorded and accounted for. Completion of the student practice must be certified by the supervisor's signature and his/her personal stamp specifying the specialization (anaesthesiologist, emergency medicine, general surgery or surgery specifying the detailed specialization, e.g. thoracic surgery, etc.). The lack of appropriate signatures and stamps will be an obstacle to obtaining credit for the practice.

The goal of paediatric practice is to:

* supplementing information about the organization of the Children's Department (Clinic) and the organizational connections of the Department (Clinic) with open treatment,
* getting acquainted with the principles of assessing the child's condition and its psychophysical development,
* learning about baby care,
* learning the principles of nutrition for a healthy and sick child,
* improving the skills of child’s physical examination,
* improving the ability to properly diagnose and differentiate basic disease entities, with particular emphasis on acute cases,
* learning the principles of interpretation of laboratory, radiological and pathological test results,
* participation in medical rounds and familiarization with the principles of keeping medical records,
* assessment of the infant's hydration level and determination of indications for rehydration treatment (amount and composition of the infusion fluid),
* learning about sanitary and epidemiological regulations in the Infant and Children's Ward and methods of preventing nosocomial infections,
* participating in specialist consultations.

The aim of practice in the Department of Surgery is:

* getting acquainted with the organization of work of the Department of Surgery (operating block/operating room, dressing/treatment room), including keeping documentation, admission rules, referral to treatment in other departments (hospitals), declaring temporary incapacity for work, prescribing other medical records (e.g. referral for outpatient treatment).
* learning about the types of surgical tools and equipment used in Departments of Surgery.
* improving the skills of medical examination and planning diagnostic procedures - especially in emergencies ("acute" conditions). Mastering the principles of treatment of fractures and burns. Getting to know the rules of qualification for surgical treatment.
* mastering the principles of asepsis and antisepsis, in particular washing techniques for surgical procedures and preparation of the surgical field.
* acquiring skills in applying dressings to wounds, performing minor surgical procedures, e.g. applying and removing sutures, installing a urinary catheter, learning the principles and methods of local anaesthesia.
* deepening knowledge about the management of emergency (intense) conditions, planning appropriate diagnostics (laboratory and radiological).
* student's participation in admitting patients for treatment in the Surgical Department.
* student's participation in medical rounds and briefings.

## SUBJECT/MODULE: practice in the scope of paediatrics, practice in the scope of surgery

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| **Learning outcomes** | **Verification methods** |
| EW3. Knows the environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic procedures in the case of the most common diseases occurring in children and their complications:  1) rickets, tetany, water-electrolyte and acid-base disorders;  2) heart defects, inflammation of the myocardium, endocardium and pericardium, cardiomyopathy, cardiac arrhythmias, heart failure, hypertension, pulmonary hypertension, syncope,  3) respiratory diseases and allergies, including congenital defects of the respiratory system, bronchiectasis, respiratory infections, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, atopic dermatitis, anaphylactic shock, angioedema,  4) anaemia, bleeding disorders, bone marrow failure, childhood cancers, including solid tumours typical of childhood, primary and secondary immunodeficiencies;  5) acute and chronic abdominal pain, vomiting, diarrhoea, constipation, gastrointestinal bleeding, peptic ulcer disease, inflammatory bowel diseases, pancreatic diseases, cholestasis, liver diseases, food allergies, congenital defects of the gastrointestinal tract,  6) acute kidney injury, chronic kidney disease, urinary tract infections, urination disorders, congenital defects of the urinary tract, vesicoureteral reflux disease, nephrolithiasis, glomerular diseases, tubulointerstitial diseases (tubulopathies, tubular acidosis), genetic kidney diseases conditioned, renal hypertension; 7) growth disorders, thyroid and parathyroid diseases, adrenal gland diseases, diabetes, obesity, puberty disorders, gonadal disorders,  7) growth disorders, thyroid and parathyroid diseases, adrenal gland diseases, diabetes, obesity, puberty disorders, gonadal disorders,  8) cerebral palsy, encephalitis and meningitis, convulsions, epilepsy,  9) the most common infectious diseases of childhood,  10) systemic connective tissue diseases, including juvenile idiopathic arthritis, systemic lupus erythematosus, dermatomyositis, systemic vasculitis, and other causes of osteoarticular pain (non-inflammatory, infectious and reactive arthritis and juvenile spondyloarthropathies);  F.W1 knows the causes, symptoms, principles of diagnosis and therapeutic procedures in cases of the most common diseases requiring surgical treatment in adults   * 1. acute and chronic abdominal diseases,   2. chest diseases,   3. diseases of the limbs, head and neck   FW4. knows the principles of qualification and performance of basic surgical procedures and invasive diagnostic and therapeutic procedures, as well as the most common complications | Pass granted by the practice supervisor |
| EU2 collects an interview with the child and his/her caregivers, using skills regarding the content, process and perception of communication, taking into account the biomedical and patient perspectives;  EU4. performs a complete and focused physical examination of a child from neonatal to adolescence, tailored to a specific clinical situation, including the following types of examination of:  1) general paediatrics;  2) neurological;  3) musculoskeletal system;  4) ophthalmological;  5) otolaryngological  FU3. is able to assess and treat a simple wound, including local anaesthesia (superficial, infiltration), applying and removing surgical sutures, applying and changing a sterile surgical dressing | Pass granted by the practice supervisor |
| K1. Abides by the doctor’s confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with a sick patient as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs | Continuous assessment by the teacher |

**V year**

During the 5th year of studies, students are required to practice (60 teaching hours) in the field of intensive care (potentially in the Intensive Care Unit of the Emergency Department) and in the field of gynaecology and obstetrics (60 teaching hours) in the Department or Clinic of Gynaecology and Obstetrics. The practice is conducted on the basis of an agreement concluded with the Hospital Management.

The Head of the Clinic (Head of the Department), or a supervisor appointed by the heads of the units, supervises the implementation of the goals of the student's practice. The student practice should be supervised by a doctor with appropriate professional training. Student's absence can only be justified by sick leave. An illness longer than 1 week necessitates extending the practice for an appropriate period of time.

It is necessary for the student to keep a practice record sheet in which he accounts for individual days and notes the activities performed.

The goal of gynaecology and obstetrics practice is:

* getting acquainted with the organization of work in the Gynaecological Emergency Room and in the Gynaecological Department (Clinic),
* discussion of the rules for qualifying patients for surgery,
* learning the rules of work in the treatment room and keeping treatment documentation, collecting material for histopathological and cytological examination,
* getting to know the rules of dealing with patients in the earlier postoperative period and keeping an observation card,
* learning the rules of conduct with patients hospitalized due to threatened miscarriage,
* learning the principles of prevention of cancer of the female genital organs and the mammary gland
* getting acquainted with the organization of work of the Maternity Emergency Room, the delivery ward and the postpartum ward,
* familiarizing yourself with the rules for admitting a woman in labour, preparing appropriate documentation,
* observing the progress of labour and keeping documentation of the course of labour, taking into account the most important parameters indicating the condition of the mother and foetus,
* becoming familiar with the use of equipment available in Maternity Departments (Clinics) (amnioscope, heart rate detector, etc.).

The goal of critical care practice is to:

* getting acquainted with the organization of work of the Intensive Care Unit (Intensive Emergency Department), including keeping documentation, rules for referral to treatment in other departments (hospitals), declaring temporary incapacity for work, issuing a death certificate,
* deepening knowledge about the management of emergency (intense) conditions, planning appropriate diagnostics (laboratory and radiological),
* student's participation in admitting patients for treatment in the Intensive Care Unit (ED),
* improving skills in dealing with sudden, serious and life-threatening conditions (participation in resuscitation/reanimation activities),
* student's participation in medical rounds and briefings

## SUBJECT/MODULE: gynaecology practice, intensive care practice

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| **Learning outcomes** | **Verification methods** |
| FW15. has knowledge about women's reproductive functions, related disorders and diagnostic and therapeutic procedures, in particular regarding:   1. menstrual cycle and its disorders, 2. Pregnancy, 3. physiological, pathological and postpartum delivery, 4. inflammation and cancer in the genital area, 5. birth control and reproductive support 6. menopause, 7. basic methods of gynaecological diagnostics and procedures | Pass granted by the practice supervisor |
| EU1.is able to conduct an interview with an adult, including an older person, using skills related to the content, process and perception of communication, taking into account the biomedical perspective and the patient's perspective;  EU4. performs a focused physical examination of an adult patient regarding the breast and prostate gland  FU14. recognizes the most common symptoms indicating an abnormal course of pregnancy and postpartum, apply and interpret diagnostic tests, perform differential diagnosis, implement therapy, monitor the effects of treatment and assess indications for specialist consultation, in particular in the case of abdominal pain, uterine contractions, vaginal bleeding, abnormal heart rate and fatal mobility, arterial hypertension  FU16. recognizes the beginning of labour and symptoms of abnormal labour  FU11. knows how to perform basic BLS resuscitation procedures in adults, including the use of an automatic external defibrillator in accordance with ERC guidelines  EU14. can perform medical procedures and procedures, including:  1) measurement and assessment of basic vital functions (temperature, heart rate, blood pressure) and monitoring them using a cardio monitor and a pulse oximeter;  2) various forms of inhalation therapy, and select the inhaler according to the patient's clinical condition;  3) peak expiratory flow measurement;  4) oxygen therapy using non-invasive methods;  5) non-instrumental and instrumental unblocking of the respiratory tract;  6) intravenous, intramuscular and subcutaneous drug administration;  7) collecting and securing blood for laboratory tests, including microbiological ones;  8) collection of arterial blood and arterialized capillary blood;  9) taking swabs for microbiological and cytological tests;  10) urinary bladder catheterization in women and men;  11) insertion of a gastric tube;  12) rectal enema;  13) standard resting electrocardiogram, and interpret its result;  14) defibrillation, electrical cardioversion and external electrostimulation;  15) strip tests, including measurement of glucose concentration using a glucometer;  16) pleural procedures: puncture and decompression of pneumothorax;  17) anterior nasal tamponade;  18) ultrasound examination in life-threatening conditions according to the FAST (Focused Assessment with Sonography in Trauma) protocol or its equivalent, and interpret its result;  EU15. knows how to use personal protective equipment appropriate to the clinical situation  FU12. is able to conduct advanced life support (Advanced Life Support, ALS) in adults in accordance with ERC guidelines |  |
| K1. respects medical confidentiality and patient rights  K2. is able to establish and maintain deep and respectful contact with a sick patient, as well as show understanding for ideological and cultural differences  K3. is guided by the good of the patient  K4. notices and recognizes their own limitations and self-assesses educational deficits and needs | Continuous assessment by the teacher |

# CONDITIONS FOR COMPLETING STUDY AND PROFESSIONAL TITLE OBTAINED:

The number of hours of classes and practices cannot be less than 5,700.

The number of ECTS points is not less than 360.

Medical graduates should have knowledge and practical skills in the field of prevention, treatment and rehabilitation necessary to practice as a doctor.

Medical graduates receive a diploma and professional title of doctor. After graduation, there is a Medical Final Examination.

**Chairman of the Senate**

**Rector**

**Prof. dr hab. Marcin Moniuszko**