

## SUBJECT CARD

Faculty of Medicine and Health Sciences

Field of studies: Medicine

Form of studies: Full-time

Degree: long-cycle Master's program

Specializations: No specialization

Academic year: 2022/2023

INTRODUCTION TO CLINICAL MEDICINE	
<b>SUBJECT</b>	<b>Introduction to clinical medicine</b>
<b>NUMBER OF ECTS POINTS</b>	10
<b>LANGUAGE OF INSTRUCTION</b>	English
<b>TEACHER(S)</b>	Professor Filip Gołkowski, MD, PhD Assoc. Professor Agata Bałdys-Waligórska, MD, PhD Assoc. Professor Zbigniew Żuber, MD, PhD Dariusz Wąchol, MD, PhD Krzysztof Wąż, MD, PhD Małgorzata Kloch, MD, PhD Maria Wieczorek-Grohman, MD, PhD Tomasz Kowalczyk, MD, PhD Tomasz Wojewoda, MD, PhD Alicja Toton, MD Angelika Chmaj, MD Anna Górak, MD Dagmara Kozłowska, MD Dorota Dębicka-Dąbrowska, MD Katarzyna Gotfryd-Bugajska, MD Katarzyna Kowalczyk, MD Katarzyna Niedrygas, MD Lidia Stopyra, MD Małgorzata Stelmachowska, MD Marta Kołodziej-Rzepa, MD Monika Połcik-Jastrząb, MD Patrycja Sikorska-Juśko, MD Przemysław Cuber, MD Sławomir Kiepusa, MD
<b>PERSON RESPONSIBLE</b>	Assoc. Professor Agata Bałdys-Waligórska, MD, PhD
NUMBER OF HOURS	
<b>LECTURES</b>	46 h
<b>CLASSES</b>	110 h
<b>SEMINARS</b>	14 h

## INTRODUCTION TO CLINICAL MEDICINE

### GENERAL OBJECTIVES

<b>OBJECTIVE 1</b>	<b>Clinical diagnostics:</b> Competence in basic clinical and differential diagnostics.
<b>OBJECTIVE 2</b>	<b>Clinical diagnostics:</b> Competence in providing medical documentation.
<b>OBJECTIVE 3</b>	<b>Surgery:</b> The student will be familiarized with the basic issues of general surgery.
<b>OBJECTIVE 4</b>	<b>Pediatrics:</b> Acquainting with issues of child development, proper division of periods of child development from prenatal to puberty. Acquaintance with issues related to childhood physiology and systemic pathology. Teaching pathophysiology of the neonatal period, including assessing the general condition of the newborn, familiarizing with the concepts of newborn born on time, normal birth weight, APGAR. Teaching how to describe pathological phenomena related to the concepts of a newborn at risk, prematurity, intra-fluid dystrophy, and a newborn baby small for his fetal age, large for his fetal age. To present and teach a detailed physical examination in all age groups, including groups of clinical problems typical of childhood.
<b>OBJECTIVE 5</b>	<b>Pediatrics:</b> Presentation of a logical interpretation of the results of laboratory and diagnostic tests depending on age, including developmental variability and the pathology found. Learning the principles of differential diagnosis leading to the diagnosis of the disease and teaching how to plan the outline of therapy in a broadly understood pediatric clinic.

### LEARNING OUTCOMES

<b>MK1</b>	<b>Knowledge:</b> Student has competence in history taking.
<b>MK2</b>	<b>Knowledge:</b> Student has competence in history writing.
<b>MK3</b>	<b>Knowledge:</b> Student has competence in head and neck examination.
<b>MK4</b>	<b>Knowledge:</b> Student analyses and understands the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common diseases requiring surgical intervention, taking into account the differences in childhood, including in particular: acute and chronic diseases of the abdominal cavity.
<b>MK5</b>	<b>Knowledge:</b> Student lists the principles of perioperative safety, preparation of the patient for surgery, general and local anaesthesia and controlled sedation.

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<b>MK6</b>	<b>Knowledge:</b> Student lists and can explain to the other person what the qualification rules are, what they are, how they proceed and what are the possible complications and consequences of surgical procedures on the example of appendectomy.
<b>MK7</b>	<b>Knowledge:</b> Student understands and correctly interprets changes in the endocrine system during child development and maturation. Knows the rules of practical assessment of child development and growth disorders can propose diagnostics, differentiation and treatment.
<b>MK8</b>	<b>Knowledge:</b> Student can discuss the impact of obstetric problems in the perinatal period and on the further development of the child. He knows the pathophysiology of the neonatal period.
<b>MK9</b>	<b>Knowledge:</b> Student knows the problem of adaptation to extrapubic life and clinical complications associated with these phenomena. Is able to recognize and differentiate respiratory disorders and respiratory diseases of the newborn period.
<b>MK10</b>	<b>Knowledge:</b> Student knows and understands pathological processes associated with congenital disorders of carbohydrate, amino acid / protein and fat metabolism.
<b>MS1</b>	<b>Skills:</b> Student has competence in chest organs examination.
<b>MS2</b>	<b>Skills:</b> Student has competence in abdominal examination.
<b>MS3</b>	<b>Skills:</b> Student is able to relate results of subjective and objective examination and lab and imaging test to symptoms of known diseases (primary diagnosis).
<b>MS4</b>	<b>Skills:</b> Student applies the rules of qualification and performance of basic surgical procedures and invasive diagnostic and therapeutic procedures.
<b>MS5</b>	<b>Skills:</b> Student adheres to the principles of asepsis and antiseptics.
<b>MS6</b>	<b>Skills:</b> Student treats a simple wound, puts on and changes a sterile surgical dressing.
<b>MS7</b>	<b>Skills:</b> Student assumes peripheral venipuncture.
<b>MS8</b>	<b>Skills:</b> Student examines the breasts, lymph nodes, the thyroid gland and the abdominal cavity for acute abdomen, and also performs a digital rectal exam through the anus.
<b>MS9</b>	<b>Skills:</b> Student can stop external bleeding.
<b>MS10</b>	<b>Skills:</b> Student has the ability to place surgical knots: single and surgical.
<b>MS11</b>	<b>Skills:</b> Student can put a sutures on a simple wound.
<b>MS12</b>	<b>Skills:</b> Student inserts a catheter into the bladder.

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<b>MS13</b>	<b>Skills:</b> Student can obtain legally informed and effective consent for diagnostic and surgical procedures.
<b>MS14</b>	<b>Skills:</b> Student is able to provide the family with information on the possibility of organ transplantation of a person diagnosed with brain death.
<b>MS15</b>	<b>Skills:</b> Student can provide the patient with test results, explain the essence of the disease, provide information about prognosis, including in particular an unfavourable prognosis.
<b>MS16</b>	<b>Skills:</b> Student can scrub in himself in accordance with the rules, wear surgical clothes while maintaining sterility.
<b>MS17</b>	<b>Skills:</b> Student can assist during a simple surgery.
<b>MS18</b>	<b>Skills:</b> Student knows the principle of performing diagnostic tests and knows how to use the results of commissioned tests in practice. Performs a logical interpretation of the results of laboratory and diagnostic tests depending on age, including developmental variability. Interprets the found deviations of test results in basic disease entities.
<b>MS19</b>	<b>Skills:</b> Student conducts an efficient pediatric interview regarding child development, immunological prevention and current disease as well as associated diseases.
<b>MS20</b>	<b>Skills:</b> Student applies knows and understands the technique of pediatric examination, taking into account the specificities associated with the age of the patient and the degree of his development. Is able and applies the proper technique of physical examination of a newborn baby, infant and elderly child.
<b>MS21</b>	<b>Skills:</b> Student can and applies child development analysis using correlated somatic tables and percentile grids. Is able to analyze deviations from the norm and performs interpretations of deviations found from the physical examination.
<b>MC1</b>	<b>Social competency:</b> Student has knowledge of basic elements of differential diagnostics.
<b>MC2</b>	<b>Social competency:</b> Student shows respect for the patient and care for his well-being.
<b>MC3</b>	<b>Social competency:</b> Student observes ethical principles in its activities.
<b>MC4</b>	<b>Social competency:</b> Student respects the patient's rights, including the protection of personal data.
<b>MC5</b>	<b>Social competency:</b> Student effectively cooperates with representatives of other medical professions.

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**MC1**

**Social Competency:** Student demonstrates the need and has the ability to systematically supplement knowledge. He can make contact (depending on the child's age), interview the child and his guardian. Can examine a child without causing anxiety to the child.

### INTRODUCTORY REQUIREMENTS

[1] Knowledge of anatomy, physiology and basis of imaging diagnostics, basic rules of fluid and electrolytes balance;

[2] Practical ability to perform subjective and objective examination;

[3] Theoretical knowledge of the basics of general pediatrics.

### COURSE PROGRAM

### DETAILED DESCRIPTION OF THE TOPIC BLOCKS

**LECTURE 1**

**Clinical diagnostics:** Principles of clinical diagnostics based on subjective and objective examination and laboratory tests. Basic manifestations of endocrine diseases.

**LECTURE 2**

**Clinical diagnostics:** Basic manifestations and elements of differential diagnostics in circulatory diseases.

**LECTURE 3**

**Clinical diagnostics:** Basic manifestations and elements of differential diagnostics in respiratory diseases.

**LECTURE 4**

**Clinical diagnostics:** Basic manifestations and elements of differential diagnostics in diseases of digestive system.

**LECTURE 5**

**Clinical diagnostics:** Elements of nuclear medicine based diagnostics.  
Principles of recording patient history and management of patient documentation.

**LECTURE 6**

**Surgery:** Brief history of surgery and introduction to the class (p. 1.).

**LECTURE 7**

**Surgery:** Brief history of surgery and introduction to the class (p. 2.).

**LECTURE 8**

**Surgery:** Surgical anatomy (p. 1.) – thyroid, oesophagus, stomach.

**LECTURE 9**

**Surgery:** Surgical anatomy (p. 2.) – liver, pancreas, bile, spleen.

**LECTURE 10**

**Surgery:** Surgical anatomy (p. 3.) – small bowel, appendix, large bowel.

**LECTURE 11**

**Surgery:** Surgical anatomy (p. 4.) – hernias.

**LECTURE 12**

**Surgery:** Surgical instrumentarium – basic instruments (p. 1.) (P. Cuber).

**LECTURE 13**

**Surgery:** Surgical instrumentarium – basic instruments (p. 2.) (P. Cuber).

**LECTURE 14**

**Surgery:** Acute abdomen (p. 1.).

**LECTURE 15**

**Surgery:** Acute abdomen (p. 2.).

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LECTURE 16	<b>Surgery:</b> Management wound and injuries (M. Kisielewski) (p. 1.).
LECTURE 17	<b>Surgery:</b> Management wound and injuries (M. Kisielewski) (p. 2.).
LECTURE 18	<b>Surgery:</b> Paediatric surgery (p. 1.).
LECTURE 19	<b>Surgery:</b> Paediatric surgery (p. 2.).
LECTURE 20	<b>Surgery:</b> Paediatric surgery (p. 3.).
LECTURE 21	<b>Surgery:</b> Paediatric surgery (p. 4.).
LECTURE 22	<b>Pediatrics:</b> Introductions to pediatrics.
LECTURE 23	<b>Pediatrics:</b> The scope of pediatrics.
LECTURE 24	<b>Pediatrics:</b> Growth and development.
LECTURE 25	<b>Pediatrics:</b> Physical Development of Children.
LECTURE 26	<b>Pediatrics:</b> Deviation of Child's Physical Development.
LECTURE 27	<b>Pediatrics:</b> Semiotics.
LECTURE 28	<b>Pediatrics:</b> Sign & symptoms.
LECTURE 29	<b>Pediatrics:</b> Diagnosis.
LECTURE 31	<b>Pediatrics:</b> Rational drug therapy.
LECTURE 32	<b>Pediatrics:</b> Basics of neonatology.
CLASS 1	<b>Clinical diagnostics:</b> Performing medical interview of an adult patient.
CLASS 2	<b>Clinical diagnostics:</b> Performing medical interview of an adult patient. Physical examination of head, neck and thorax. Formulation of initial and differential diagnoses.
CLASS 3	<b>Clinical diagnostics:</b> Performing medical interview of an adult patient. Physical examination of the abdomen. Formulation of initial and differential diagnoses.
CLASS 4	<b>Clinical diagnostics:</b> Performing medical interview of an adult patient. Physical examination of nervous and motorial system. Formulation of initial and differential diagnoses.
CLASS 5	<b>Clinical diagnostics:</b> Full subjective and objective examination of an adult patient, recording patient history, including differential diagnostics.
CLASS 6	<b>Surgery:</b> Principles of physical examination of surgical patients. Communication with the patients and his/her family.
CLASS 7	<b>Surgery:</b> Composition of body, fluid and electrolytes balance, shock.

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<b>CLASS 8</b>	<b>Surgery:</b> Acute abdomen.
<b>CLASS 9</b>	<b>Surgery:</b> Abdominal hernias, cholelithiasis.
<b>CLASS 10</b>	<b>Surgery:</b> Principles and organization of the operating theatre.
<b>CLASS 11</b>	<b>Surgery:</b> Preparation for surgical field, technique of putting on the gloves, scrubbing-in for surgery, basic surgical instruments and surgical knots (CSM).
<b>CLASS 12</b>	
<b>CLASS 13</b>	<b>Surgery:</b> Participation in surgical procedures – both open and laparoscopic.
<b>CLASS 14</b>	<b>Surgery:</b> Surgical anatomy with basics of surgical radiology.
<b>CLASS 15</b>	
<b>CLASS 16</b>	<b>Pediatrics:</b> Interview and physical examination.
<b>CLASS 17</b>	<b>Pediatrics:</b> Caring for a healthy child - monitoring growth, puberty, weight control).
<b>CLASS 18</b>	
<b>CLASS 19</b>	
<b>CLASS 20</b>	<b>Pediatrics:</b> Differentiation of the most common disease symptoms in children (swollen lymph nodes, fever, rashes).
<b>CLASS 21</b>	<b>Pediatrics:</b> Shortness of breath, respiratory failure, stridor, cough, wheezing, hemoptysis, hyperventilation.
<b>CLASS 22</b>	<b>Pediatrics:</b> Skin symptoms in pediatrics.
<b>CLASS 23</b>	<b>Pediatrics:</b> Intensive care for children - examination of patients, analysis of anamnesis and physical examination.
<b>CLASS 24</b>	
<b>CLASS 25</b>	<b>Pediatrics:</b> Musculoskeletal disorders, inflammatory diseases of the osteoarticular-muscular system, symptoms, diagnostics.
<b>CLASS 26</b>	
<b>CLASS 27</b>	<b>Pediatrics:</b> Functional and emotional disorders - diagnostics, rules of conduct, psychological aspects of diseases.
<b>CLASS 28</b>	
<b>CLASS 29</b>	
<b>CLASS 30</b>	<b>Pediatrics:</b> Problems of the newborn period - selected disease entities.

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SEMINAR 1	<b>Surgery:</b> Surgical history taking and physical examination – head and neck.
SEMINAR 2	<b>Surgery:</b> Surgical history taking and physical examination – thorax.
SEMINAR 3	<b>Surgery:</b> Surgical history taking and physical examination – abdomen (excluding inguinal and perianal region).
SEMINAR 4	<b>Surgery:</b> Surgical history taking and physical examination – inguinal and perianal region.
SEMINAR 5	<b>Surgery:</b> Surgical history taking and physical examination – vascular surgery.
SEMINAR 6	<b>Surgery:</b> Suturing technique (p. 1.).
SEMINAR 7	<b>Surgery:</b> Suturing technique (p. 2.).
SEMINAR 8	<b>Surgery:</b> Case study – acute appendicitis – symptoms and diagnosis.
SEMINAR 9	<b>Surgery:</b> Case study – acute cholecystitis – symptoms and diagnosis.
SEMINAR 10	<b>Surgery:</b> Case study – incarcerated inguinal hernia – symptoms and diagnosis.
SEMINAR 11	<b>Surgery:</b> Preparation of operating field and principles of OR.
SEMINAR 12	<b>Surgery:</b> Specificity of paediatric surgery history taking and physical examination – newborns and infants.
SEMINAR 13	<b>Surgery:</b> Specificity of paediatric surgery history taking and physical examination – older children.
SEMINAR 14	<b>Surgery:</b> Body composition, fluid and electrolytes balance, shock.
DIDACTIC METHODS (APPLIED)	
	Lecture, Discussion, Multimedial presentetion, Case study, Bedside teaching, Practical classes, Lectures in e-learning system with the application MS Teams.
STUDENTS WORKLOAD	
NUMBER OF HOURS UNDER SUPERVISION	170 hours
NUMBER OF PREPARATION HOURS	Preparation for classes: 40 hours Patient history writing: 3 hours Preparation for the exam: 67 hours



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<b>TOTAL NUMBER OF HOURS FOR THE COURSE</b>	280 hours
CONDITIONS FOR COURSE COMPLETION	
	<p>Attendance of all lectures and classes is obligatory.</p> <p><b>Clinical diagnostics:</b> Active obligatory participation in practical classes 100%, patient history writing. The condition for admission to the exam is passing the classes and/or seminars.</p> <p><b>Surgery:</b> Attendance at all clinical classes confirmed by the assistant. Completion of the subjects of clinical classes with a positive assessment of the assistant.</p> <p><b>Pediatrics:</b> The presence at bedside classes and seminars is obligatory. The one absence at the above mentioned is allowable, however two or more absences either at bedside classes or at seminars must be explained in written form (medical certificate acceptable). The abandoned classes must be given a credit by a person in charge.</p>
METHODS OF ASSESSMENT	
<b>IN TERMS OF KNOWLEDGE</b>	Oral questioning, Multiple choice test
<b>IN TERMS OF SKILLS</b>	Demonstration of practical skills, Assessment by the assistant, taking history Practical exam
<b>IN TERMS OF SOCIAL COMPETENCY</b>	Active participation in classes, observation of student attitude toward classmates and patients
<b>FORMATIVE</b>	Discussion and observation of student conduct History taking at patients' bed, physical examination at patients' bed. Colloquia, mid-term papers.
<b>SUMMATIVE (I &amp; II terms)</b>	<p><b>I term (EXAM):</b> test exam containing 3 parts (40 questions from each part: Clinical diagnostics, Pediatrics. Surgery) <u>OSCE practical exam</u></p> <p><b>II term (RETAKE EXAM):</b> written answer to 3 open-ended problem questions or an oral exam (3 questions) online in case of tightening epidemiological regulations <u>OSCE practical exam.</u></p>
GRADING SCALE	
<b>3,0 (SATISFACTORY)</b>	<b>60-69%</b> correct answers

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<b>3,5 (SATISFACTORY PLUS)</b>	<b>70-75%</b> correct answers
<b>4,0 (GOOD)</b>	<b>76-82%</b> correct answers
<b>4,5 (GOOD PLUS)</b>	<b>83-89%</b> correct answers
<b>5,0 (VERY GOOD)</b>	<b>90%-100%</b> correct answers

### BASIC LITERATURE

- [1] Massachusset General Hospital Handbook of Internal Medicine, MS Sabatine , 6<sup>th</sup> North Am Ed., Wolters and Kluwer;
- [2] Harrison's Principles of Internal Medicine 20th Edition PDF Free 2019;
- [3] Nelson Textbook of Pediatrics Tom 1-2, Karen Marcdante, Robert M. Kliegman, Hal B. Jenson, Richard E. Behrman, red. wyd. pol. Andrzej Milanowski Elsevier Urban & Partner, 2013;
- [4] Nelson Textbook of Pediatrics, 2-Volume Set, 21st Edition, Authors: Robert Kliegman Joseph St. Geme, eBook ISBN: 9780323568883, Elsevier 2019;
- [5] Principles and Practice of Surgery, 7th Edition, Editors: O. James Garden Rowan W Parks, Elsevier, 2017;
- [6] Clinical Surgery, 2nd Edition, Alfred Cuschieri (Editor), Pierce A. Grace (Editor), Ara Darzi (Editor), Neil R. Borley (Editor), David I. Rowley (Editor), ISBN: 978-1-118-34395-1 January 2012 Wiley-Blackwell.

### SUPPLEMENTARY LITERATURE

- [1] *Introduction to internal medicine*, Goldman-Cecil Medicine, 26th Edition, Authors: Lee Goldman Andrew Schafer, Hardcover ISBN: 9780323532662, Imprint: Elsevier, Published Date: 2019.