Annex to Resolution No. 166 of the Rector
of the Nicolaus Copernicus University
of 21 December 2015

Course description (syllabus) form for higher education, doctoral, postgraduate and skills development programmes

A. General course description

Field name	Comments
Course title	Introduction to Pediatrics
Unit organising the course	Faculty Unit of Pediatric Endoscopy and Gastrointestinal Function Testing , Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń
Unit for which the course is organised	All faculties
Course ID	
ISCED code	0912
ECTS credit allocation	4,5
Form of course completion assessment	pass with grade
Language of instruction	English
Indication whether attempts at obtaining course credit can be repeated	No
Affiliation of the course to a course group	**NON-SURGICAL CLINICAL SCIENCES** (Group E)
Total student workload	1.Workload associated with direct participation of academic teachers: - lectures – **30 hours,** - tutorials – **30 hours,** - treatment **– 1 hour;** - test execution – **1.5 hour** Total workload involving the direct participation of academic teachers: **62,5 h**, which equals **2,5 of an ECTS point.** 2.Total student workload: - lecture attendance – **30** hours - tutorial attendance – **30** hours (+ **6** hours in the Medical Simulation Center) - case analysis **-2,5h** - preparation to the tutorials– **10 hours** - reading literature **20 h** - preparation for test – **20 hours** Total student workload: **112,5 h**, which equals **4,5 ECTS point.** 3. Workload related to achievement of learning outcomes in medical simulation settings (group E): - tutorials **6 h** Total workload related to achievement of learning outcomes in

	medical simulation settings: **6 h**, which equals **0,24 ECTS points**. Percentage of classes required to achieve necessary learning outcomes: **10 %** 4. Workload associated with achievement of learning outcomes related to medical communication: - tutorials – **30 hours** Total **w**orkload associated with achievement of learning outcomes related to medical settings: **30 h**, which equals **1,2 ECTS points**.
Learning outcomes – knowledge	Student: W1: explains principles of natural feeding, healthy child nutrition and obesity prevention, as well as nutritional modifications resulting from disease (E.W1) W2 : understands principles for the prevention of childhood illnesses, including screening, balance examinations and immunisation (E.W2) W3: knows environmental and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management of the most common childhood diseases and their complications (1-10) (E.W3) W4: understands issues of the abused and sexually exploited child and the principles of intervention with such patients (E.W4, D.W13) W5: knows issues of mental impairment, behavioural disorders, psychoses, addictions, autism spectrum disorders, eating and excretion disorders in children (E.W5) W6: understands issues of mental impairment, behavioural disorders, psychoses, addictions, autism spectrum disorders, eating and excretion disorders in children, common diseases of the various systems and organs, metabolic diseases and water-electrolyte, endocrine and acid-base disorders (C.W27) W7. estimates the psycho-physical development of the human being from birth to death, including the specific characteristics of physical, emotional, cognitive and social development (D.W1)
Learning outcomes – skills	Student: U1: interviews the child and their carers, using skills on the content, process and perception of communication, taking into account the biomedical and patient perspectives (E U2) U2: takes a medical history in a life-threatening situation using the following scheme: SAMPLE (S - Symptoms, A - Allergies, M - Medications, P - Past medical history, L - Last meal, E - Events prior to injury/illness; (E.U3) U3: performs a complete and focused physical examination of the child from the neonatal to adolescent period adapted to the specific clinical situation 1-5 (E. U6) U4: carries out balance examinations, including comparing anthropometric and blood pressure measurements with data on centile grids, as well as assesses the progression of puberty (E.U8) U5: recognises the most common symptoms of diseases in children, applies diagnostic tests and interprets their results,

	carries out differential diagnosis, implements therapy, monitors the effects of treatment and assesses indications for specialist consultation, (E U10) U6: recognises the symptoms of hazardous and harmful use of alcohol and problematic use of other psychoactive substances, symptoms of psychoactive substance dependence and behavioural addictions, and proposes appropriate therapeutic and medical treatment; (E.U11) U7: recognises conditions requiring hospital treatment (E.U12) U8: qualifies the patient for preventive vaccination (E.U13) U9: performs medical procedures and treatments, including: (temperature, pulse, blood pressure and arterial blood pressure) (E.U14) U10: uses personal protective equipment appropriate to the clinical situation (E.U15) U11: maintains patient medical records, also in electronic form, in accordance with the law (E.U18) U12: communicates with patients from groups at risk of economic or social exclusion, while respecting their dignity (E.U27) U13: applies the principles of providing feedback (constructive, non-judgmental, descriptive) as part of team cooperation (E.U30) U13: accepts, explains and analyses their own role and responsibilities within the team and recognizes their role as a doctor in the team (E.U31) U14: discusses the patient's situation in the team, excluding subjective assessments, respecting the patient's dignity (E.U33) U15: uses the following protocols (e.g. when transferring patient care, ordering or providing patient consultations) (E.U34)
Learning outcomes - social competence	Student K1 establishes and maintains deep and respectful contact with the patient, as well as to shows understanding for ideological and cultural differences (K_K01) K2: considers patient's well-being as a priority (K_K02) K3: observes medical confidentiality and other patient rights (K_K03) K4: takes action towards the patient based on ethical principles, while being aware of the social determinants and limitations resulting from the disease (K_K04) K5: promotes health behaviours (K_K06) K6: uses objective sources of information (K_K07)
Teaching methods	Lectures, and tutorials (theoretical and practical skills at bedside, case presentation) Workshops will be held in: - Department of Pediatrics, Allergology and Gastroenterology, Antoni Jurasz University Hospital No. 1 in Bydgoszcz (**12 hours** including practical exam) - Department of Neonatology, Jan Biziel University Hospital No. 2 in Bydgoszcz (**6 hours**) - Department of General and Oncological Surgery In Children, Antoni Jurasz University Hospital In Bydgoszcz (**6 hours**) - Center for Medical Simulation (**6 hours**) - utilization of medical

	simulation methods
Prerequisites	Student should have basic knowledge of physiology and pathophysiology, basic terms and principles of laboratory diagnostics, and biochemical processes
Brief course description	The aim of the subject "Introduction to paediatrics" is to help students become familiar with pediatric issues, including physiological and pathological basis of child development and current prophylactic strategies. During lectures and tutorials students will acquire knowledge how to take medical history and perform medical examination of a child of every age.
Full course description	The purpose of lectures is to present current knowledge of physiological and pathological basis of child development from birth to adulthood, principles of child care practice, infant and child feeding guidelines. The lectures focus also on today's health problems and threats to pediatric population, including inadequate dietary habits and addictions. The purpose of tutorials is to teach students how to take medical history and perform medical examination and how to interpret basic laboratory results with regard to age differences.
Literature	Basic textbook - Nelson Essentials of Pediatrics. Marcdante KJ, Kliegman RM. Schuh AM.Saunders 2022, 9th edition Supplementary textbooks: Illustrated Textbook of Pediatrics. Lissauer T, Carroll W. Elsevier. 2021, 6th edition Schwartz's Clinical Handbook of Pediatrcs. Zorc JJ. Lippincott WW. 2012 5th edition
Assessment methods and criteria	The credit of the subject consists of both practical and theoretical exams. **Practical exam** (scoring system – 0-12 points > 66%) W1, W7, U1-15, K1, K3, K4 Only after passing the practical exam student can apply for the theoretical exam (test). **Theoretical exam** (>60**%) W1-W7, U4 –U8** **The credit of the subject is awarded after obtaining satisfactory grade from both (1) oral and (2) theoretical exams (1+2).** The oral exam is held by a person conducting classes and covers both classes and lectures. **The final grade** is an arithmetic mean of both practical exam (0.5) and theoretical exam (0.5) i.e. practical examination constitutes 50% of final result.
Work placement	Not applicable

B. Description of the course within the period of instruction

Field name	Comments
Period of instruction	2024/2025 winter semester
Form of assessment of course completion in the period of instruction	The same as in part A

Form(s) of classes, number of hours and completion assessment methods	The same as in part A
Name of course coordinator in the period of instruction	Anna Szaflarska-Popławska, MD, PhD
Names of persons managing student groups for the course	Lectures: Anna Szaflarska-Popławska, MD, PhD Aneta Krogulska, MD, PhD Julia Tworowska MD, PhD. Justyna Stampor – Bednarska MD Adam Główczewski MD Agnieszka Kowalczyk MD PhD Workshops: Department of Pediatrics, Allergology and Gastroenterology, Antoni Jurasz University Hospital No. 1 in Bydgoszcz Julia Tworowska MD., PhD. Agnieszka Kowalczyk MD, PhD. Justyna Stampor-Bednarska MD. Adam Główczewski MD Aleksandra Kwiatkowska MD Department of Neonatology, Jan Biziel University Hospital No. 2 in Bydgoszcz Agnieszka Witulska-Alagoz, MD, PhD Iga Rupniak, MD Anastazja Palamarchuk MD Department of General and Oncological Surgery In Children, Antoni Jurasz University Hospital In Bydgoszcz Alicja Rymaszewska MD Krzysztof Dymek MD Marika Reszczyńska MD Kacper Kroczek MD
Course attributes	Obligatoru
Course groups including description and limit to the number of students within the groups	Lectures for all students Tutorials in groups (group size limit – 6 students)
Time and place of classes	Time and place of classes are arranged by the Dean's Office
Number of study hours involving distance learning methods	Not applicable
Course website	Not applicable
Learning outcomes defined for a given form of classes within the course	Lectures Student: W 1: discusses nutritional principles of natural feeding, healthy healthy and ill child nutrition, as well as principles of mass vaccinations and periodic pediatric health checks (E.W1, W2, E.U8.E U13) W 2: estimates the causes, symptoms, diagnostic and therapeutic management of the most common pediatric diseases (E.W3, E U10)

	W3 : characterises the most common life-threatening conditions in children and the principles of their management (E.W6.E U12) W 7: names clinical forms of the most common diseases of various systems and organs, metabolic diseases and water-electrolyte and acid-base balance disturbances (C.W27) W 8: knows genetic, environmental and epidemiological background of the most common pediatric diseases (E.W3) W 9: analyses the relationship between factors affecting the hemostatis of biological processes and physiological and pathophysiological changes (C.W27) W 10: predicts the consequences of child's physical and sexual abuse, mental impairment and personality disorders (psychosis, addictions, eating disorders, excretion system disorders (E.W4. DW13) W11: estimates psycho-physical development of human being from birth to death, including the specific characteristics of physical, emotional, cognitive and social development (D.W1) Tutorials: Student W1: explains principles of natural feeding, healthy child nutrition and obesity prevention, as well as nutritional modifications resulting from disease (E.W1) U1: interviews the child and their carers, using skills on the content, process and perception of communication, taking into account the biomedical and patient perspectives (E U2) U2: takes a medical history in a life-threatening situation using the following scheme: SAMPLE (S - Symptoms, A - Allergies, M - Medications, P - Past medical history, L - Last meal, E - Events prior to injury/illness; (E.U3) U3: performs a complete and focused physical examination of the child from the neonatal to adolescent period adapted to the specific clinical situation 1-5 (E. U6) U4: carries out balance examinations, including comparing anthropometric and blood pressure measurements with data on centile grids, as well as assess the progression of puberty (E.U8) U5: recognises the most common symptoms of disease in children, applies diagnostic tests and interprets their results, carry out differential diagnosis, implements therapy, monitors the effects of treatment and assesses indications for specialist consultation, (E U10) U6: recognises the symptoms of hazardous and harmful use of alcohol and problematic use of other psychoactive substances, symptoms of psychoactive substance dependence and behavioural addictions, and proposes appropriate therapeutic and medical treatment; (E.U11) U7: recognises conditions requiring hospital treatment (E.U12) U8: qualifies the patient for preventive vaccination (E.U13) U9: performs medical procedures and treatments, including:

	(temperature, pulse, blood pressure, arterial blood pressure) (E.U14) U10: uses personal protective equipment appropriate to the clinical situation (E.U15) U11: maintains patient medical records, also in electronic form, in accordance with the law (E.U18) U12: communicates with patients from groups at risk of economic or social exclusion, while respecting their dignity (E.U27) U13: applies the principles of providing feedback (constructive, non-judgmental, descriptive) as part of team cooperation (E.U30) U13: accepts, explains and analyses their own role and responsibilities within the team and recognizes their role as a doctor in the team (E.U31) U14: discusses the patient's situation in the team, excluding subjective assessments, respecting the patient's dignity (E.U33) U15: uses the following protocols (e.g. when transferring patient care, ordering or providing patient consultations) (E.U34)
Assessment methods and criteria for a given form of classes within the course	The credit of the subject consists of both practical and theoretical exams. **Practical exam** (scoring system – 0-12 points > 66%) W1, W7, U1-15, K1, K3, K4 Only after passing the practical exam student can apply for the **theoretical exam** (test). **Theoretical exam** (>60%) W1-W7, U4 –U8 **The credit of the subject is awarded after obtaining satisfactory grade from both (1) oral and (2) theoretical exams (1+2).** The oral exam is held by a person conducting classes and covers both classes and lectures. **The final grade** is an arithmetic mean of both practical exam (0.5) and theoretical exam (0.5) i.e. practical examination constitutes 50% of final result.
Course content	**Lectures** 1.Physical, psychomotor and social development of a newborn and children in different age. Puberty. Methods of physical development assessment 2.Nutritional requirements of a child. Breast feeding and formula feeding. Vitamin K and D supplementation guidelines. Nutritional recommendations for older children and teenagers. Feeding and eating disorders in childhood. 3. Basic laboratory test interpretation in different age groups. General rules at biological material collecting in children – urine and blood speciment collection guidelines, urinary catheterization, blood pressure measurement and its interpretation rules 4.Pediatric emergencies 5. Common respiratory symptoms: cough, dyspnea, respiratory distress. Fever and commonly used antipyretics in children. 6. Common gastrointestinal symptoms: vomiting, regurgitation, abnormal stools, acute diarrhoea, dehydration

	7. Common symptoms: cyanosis, cardiac insufficiency, jaundice, hepatomegaly, splenomegaly, skin lesions 8. Common symptoms: anuria, poliuria, dysuria, oedema, seizures, abnormal muscle tone. Child with cerebral palsy 9. Routine vaccinations and recommended vaccinations, post-exposure prophylaxis and anti-vaccine movement 10.Dysmorphies and genetic diseases. Social problems in the pediatrician's practice. Tutorials 1.Rules and regulations of the pediatrics department. Documentation of medical records. Personal child health record. Psychomotor development of a child. Pediatric medical examination at bedside. Physical development assessment of a child (tables, child growth charts, biological age assessment, nutritional status assessment). Blood pressure measurement and its interpretation rules in children. 2.History taking. Prenatal and birth history, developmental history, social history of family, immunization history. Chief complaint, history of present illness. Past medical history. Pregnancy and birth history. Neonatal period. Developmental history. Feeding history. Family history. Nutritional recommendations for children and teenagers, a practical approach to nutrititional history taking and its interpretation. 3.Pediatric examination skills teaching – general status, vital signs, nutritional status, level of consciousness, cooperation, mental state, growth parameters, skin, lymph nodes, musculoskeletal examination, head, eyes, ears, nose, mouth, throat and neck examination. 4.Pediatric examination skills teaching –lungs and thorax inspection, auscultation, percussion and palpation, heart rhythm, murmurs and quality of heart sound, pulse quality in upper and lower extremities, abdomen inspection, auscultation and palpation, neurologic and genitourinary examination. 5.Training in history taking and pediatric medical examination. Obtaining credits in history taking and medical examination.
Teaching methods	Lectures, and tutorials (theoretical and practical skills at bedside, case presentation) Workshops will be held in: - Department of Pediatrics, Allergology and Gastroenterology, Antoni Jurasz University Hospital No. 1 in Bydgoszcz (**12 hours** including practical exam) - Department of Neonatology, Jan Biziel University Hospital No. 2 in Bydgoszcz (**6 hours**) - Department of General and Oncological Surgery In Children, Antoni Jurasz University Hospital In Bydgoszcz (**6 hours**) - Center for Medical Simulation (**6 hours**) - utilization of medical simulation methods
Literature	The same as in part A