



Course: Pediatrics

Course Coordinator: Jelena Roganović, MD, PhD, Full Professor tenure

Department: Department of Pediatrics

Study program: Integrated Undergraduate and Graduate University Study of Medicine in English

Study year: Fifth

Academic year: 2021/22

SYLLABUS

Course description (a brief description of the course, general instructions, where and in what form the lessons are organized, necessary equipment, instructions for attendance and preparation for classes, student obligations, etc.):

Brief description of the course

The course „Pediatrics“ is a compulsory course in the 5th year of the Integrated Undergraduate and Graduate University Study of Medicine in English. It consists of 45 hours of lectures, 70 hours of seminars and 102 hours of practicals, a total of 217 hours (11 ECTS credits).

The objectives of the course are to acquire basic knowledge and skills in the field of pediatrics. Pediatrics is a medical discipline defined by the object of its interest - the child, from birth to maturity. The interest of pediatrics is focused on the child as an individual and on the whole pediatric population. The tasks of pediatrics are multiple: study and surveillance of the growth and development of children, protection and improvement of children's health, prevention and cure of the diseases, and rehabilitation of disabled children. Pediatrics is based on the unitarist approach, combining three main components of children's health care - prevention, treatment and rehabilitation. The unique significance of pediatrics is that by delivering of health care to the youngest and most vulnerable age, it largely determines the health of future generations of adults.

The course provides specific knowledge and practical skills in pediatrics at the level required for a future primary health care practitioner, enabling students for basic diagnostic and therapeutic approaches to a sick child, initial management of the most common pediatric diseases, emergency care in pediatrics, disease prevention and environmental health hazards

Expected learning outcomes

I. Cognitive domain - Knowledge

1. Define tasks and unitarist approach to pediatrics
2. Describe the basic vital statistical terminology and organization of maternal and child health care

3. Recognize the importance of prevention in children's health
4. Associate main symptoms and signs of the most common childhood diseases with specific clinical conditions and syndromes
5. Select appropriate diagnostic procedures in the most common pathological conditions and diseases in pediatrics
6. Demonstrate the ability for treatment planning for the most common pediatric diseases
7. Analyze and evaluate the course of treatment, its efficacy and outcomes

II. Psychomotor domain - skills

1. Practice taking a pediatric history
2. Apply physical examination of the child
3. Recognize the normal physical growth and development of the child and disturbances in growth and development
4. Perform basic practical diagnostic and therapeutic procedures under the supervision (taking of biological samples, blood pressure measurement, body temperature measurement, procedures with a febrile child, application of drugs in children)
5. Master basic resuscitation skills of children and management of the most common emergencies in pediatrics
6. Set optimal therapeutic procedures for the most common diseases in children (with assistance)
7. Participate in a multidisciplinary approach to the pediatric patient

The content of the course is didactically divided into three parts:

1. Propedeutics in pediatrics,
2. General, social and preventive pediatrics, and
3. Special pediatrics.

1. Pediatric propedeutics is focused on the peculiarities of young age, pediatric history and physical examination of the child from infancy to the adolescence, and acquire the skills of communication with children and parents / guardians. The main contents are: Definition of pediatrics. Development and future of pediatrics in Croatia and in the world. Medical history in pediatrics. Physical examination of the child. Emotional development of the child. Medical psychology of the sick child. The most common psychological disorders of children and adolescents. Abused and neglected child.

2. General pediatrics includes theoretical and practical aspects of the physiology and pathology of growth and development, nutrition and nutritional disorders, assessment of nutritional status and nutritional disorders, and water, electrolyte, mineral, and acid-base disorders. Social pediatrics studies the

interaction of the child and the environment, and the environmental factors that affect the child's health at the individual and population levels. Preventive pediatrics combines knowledge about the possibilities of preventive activities and improving the health of children. The main contents are: Basics of child growth and development. Growth and development by age. Growth retardation. Tall stature. Nutrition of infants, preschool and school children. Adolescent nutrition and its disorders. Nutritional assessment. Malnutrition. Obesity. Vitamin intake and metabolism related diseases. Nutrition of the sick child. Water, electrolyte, mineral and acid-base disorders. Vital statistics data. Maternal and child health care. Injuries in children. Active immunization. Newborn screening. Symptomatic treatment of children.

3. Special pediatrics is the largest unit that includes pathological conditions related to age (infancy, preschool age, school age, puberty and adolescence) and pathological conditions related to certain organ systems, with special attention to those conditions that differ from adults. Special attention is paid to the recognition and management of emergencies in pediatrics, the chronically ill child, and the health care transition. The main contents are: Hereditary and prenatally acquired diseases. Metabolic diseases. Healthy newborn infant. Diseases of the newborn. Respiratory diseases. Allergy and allergic diseases. Immunity and immunodeficiencies. Cardiovascular diseases. Rheumatic diseases. Diseases of the blood. Malignant diseases. Diseases of the urinary system. Diseases of the endocrine system. Diseases of the digestive system. Liver disease. Neuromuscular diseases. Critically ill child. Chronically ill child.

Course structure

Classes (lectures, seminars, practicals) are held in the 10th semester of the study for 8 weeks in a row, at the Department of Pediatrics, Clinical Hospital Center Rijeka – locality Kantrida. Lectures are held in the first two weeks, and seminars are held for a further 6 weeks.

The first 2 weeks are lectures that are common to all students. During lectures, students gain a theoretical overview of the main contents of the course. Seminars are problem-oriented, with case presentation. Students should regularly attend seminar classes (maximum 2 absences are allowed), and should theoretically prepare for seminars according to the attached schedule (interactive classes). Before the end of the course, student write group seminar paper according to the attached instructions. In case of unfavorable epidemiological situation, it is possible to hold classes online.

Practicals are held for 6 weeks. Students are divided into groups of 3-5 students per teacher. During the practicals, students directly learn skills and practical knowledge. The first 4 days are practicals in pediatric propedeutics, followed by a rotation of pediatric activities and teachers, giving to students the opportunity to learn about broad casuistic in pediatrics.

Students will be provided with all necessary information about classes on a regular basis through the Merlin platform.

Assigned reading

Kliegman RM, St Geme JW III. Nelson Textbook of Pediatrics. 21st edition. Elsevier, Philadelphia, USA, 2019.

Optional/Additional reading

Bernstein D, Shelov SP. Pediatrics for Medical Students. 3rd edition. Wolters Kluwer -Lippincott Williams & Wilkins, Philadelphia, USA, 2011.

Chaurasia DD. Pediatrics For Students and Practitioners. 2nd edition. CBS Publishers & Distributors Pvt Ltd, India, 2021.

COURSE TEACHING PLAN

List of lectures (with titles and explanations)

P1. Introduction to pediatrics

Definition of pediatrics. Tasks of pediatrics. Historical development of pediatrics. Development and perspectives of pediatrics in the world. Pediatrics in Croatia today and tomorrow.

P2. Maternal and child health

The importance of special care for the health of mothers and children. Declaration of the Rights of the Child. Basic measures of social care for mother and child. The right to decide freely about childbirth. Child health care. Factors affecting the health of mothers and children.

P3-4. Social pediatrics

Definition and tasks of social pediatrics. Convention on the Rights of the Child. Vital statistic concepts related to pediatrics. Basic principles of maternal and child health care in the community. Preconception protection. Prenatal care - preventive measures in pregnancy. Protection of infants and preschool children.

P5. History in pediatrics

Special aspects of the pediatric history. Appropriate pediatric history.

P6. Physical examination in pediatrics

Special aspects of the physical examination in pediatrics. Protocol for the physical exam of a child.

P7-8. Growth and development of the child

Growth factors. Height growth and weight gain - growth charts. Variations in growth pattern for different body systems. Evaluation of osseous maturation. Dental development. Predicting a child's ultimate height. Calculating body surface area.

Ages and stages of development. Growth and development by age. Short stature. Tall stature.

P9-10. Psychomotor development and alterations

Basic features of normal psychomotor development. Assessment of psychomotor development. Developmental domains: Motor development - Gross motor and fine motor. Communication and language. Cognitive and emotional development. Alterations in psychomotor development.

P11-12. Nutrition and eating disorders

Food and nutrients. Infant nutrition. Breastfeeding. Formula feeding. Benefits of breastfeeding. Nutrition of preschool and school child. Adolescent nutrition. Eating disorders. Malnutrition. Obesity.

P13. Homeostasis and water, electrolyte and acid-base disorders

Daily requirements of water and electrolytes. Composition of body fluids. Regulation of osmolality and volume. Sodium disorders. Potassium disorders. Acid-base disorders.

P14-15. The newborn infant

Neonatal gestational age and birth weight classification. Fetal growth and maturity. Fetal distress. Transition from intrauterine to extrauterine life. Routine delivery room and infant care. Physiological characteristics of the newborn. Birth injuries. Physiologic jaundice.

P16. Premature infant

Definition and classification of prematurity. Causes of prematurity. Biological characteristics of premature infants. Care of premature infant. Nutrition of premature infant. Short-term and long-term complications of prematurity.

P17. Blood count in children

Normal blood count values by age. Definition of anemia. White blood cell disorders. Evaluation of a child with leukocytosis. Neutropenia. Platelet disorders.

P18. Blood count in the most common childhood diseases

Blood count in the following pathological conditions: heart diseases, gastrointestinal diseases, liver diseases, kidney diseases, endocrine diseases, lung diseases, systemic connective tissue diseases. Anemia of chronic disease.

P19. Hereditary metabolic diseases

What are hereditary metabolic diseases? Systematic search for hereditary metabolic diseases - neonatal screening. When to suspect a metabolic disease in a child? Peculiarities of history and physical examination. Principles of treatment of hereditary metabolic diseases. Rare diseases and prevention.

P20. Immunization

Immunity bases of active and passive immunization. Types of vaccines. Principles of vaccination as a preventive program and mandatory childhood Vaccination Schedule in Croatia. Contraindications to vaccination. Adverse (post-vaccination) reactions. The most common indications for passive immunization.

P21-22. Respiratory diseases

Fetal lung development. Characteristics of respiratory organs in a child. Examination of a child with dyspnea. Types of dyspnea. Congenital anomalies of respiratory organs. Upper and lower respiratory tract infections in children. Acute inflammatory airway obstruction: croup, bronchiolitis, asthma. Community acquired pneumonia and pulmonary tuberculosis. Foreign bodies of the airway.

P23-24. Cardiovascular diseases

Diagnosis of heart disease in children. Congenital heart diseases (CHD): the left-to-right shunt lesions (acyanotic) and the right-to-left shunt lesions (cyanotic). CHD without shunting. Inflammatory heart diseases. Cardiomyopathies. Disturbances of rate and rhythm of the heart.

P25. Blood diseases

Structure and function of the hematopoietic system. Prenatal hematopoiesis. Evaluation of a child with blood disease. Diagnostic tests in pediatric hematology.

P26. Anemia

Physiology of red blood cells. Definition of anemia. Classification of anemias according to etiology and mean corpuscular volume. Anemias resulting from insufficient production of red blood cells. Hemolytic anemias. Anemias resulting from blood loss.

P27-28. Immunity and immune disorders

Innate and acquired immunity. Characteristics of the immune response in children. A child with suspected immune disorder. Common respiratory infections in children. Primary and secondary immunodeficiencies. Diagnostic and therapeutic approach to immunodeficiencies.

P29-30. Allergic diseases

Terminology. Epidemiology and etiopathogenesis. Diagnostic approach. Pseudoallergic reactions. Urticaria and angioedema. Drug and food allergy. Anaphylaxis. Atopic dermatitis. Specific immunotherapy of allergic diseases. Prevention of allergic diseases.

P31. Rheumatic diseases

Epidemiology of rheumatic diseases. Approach to a child with suspected rheumatic disease. Principles of diagnosis and treatment. Juvenile idiopathic arthritis. Vasculitis. Systemic connective tissue diseases. Autoinflammatory diseases.

P32-33. Diseases of the digestive system and liver

Structure and function of the digestive system. The most common symptoms and signs of diseases of the digestive system. Infant colic. Helicobacter pylori infection in children. Inflammatory bowel disease. Symptoms and signs of liver disease. Diagnostic approach to a child with suspected liver disease.

P34-35. Diseases of the endocrine system

Symptoms and signs of endocrine diseases. The most common diseases of the endocrine system: Diseases of the pituitary gland. Diabetes mellitus. Diseases of the thyroid gland. Diseases of adrenal glands. Disorders of sex development. Growth and developmental disorders.

P36-37. Diseases of the urinary system

The most common symptoms and signs of urinary tract diseases. Diagnostic tests in diseases of the urinary system. Urinary tract infection. Hematuria. Glomerular diseases. Acute kidney injury. Chronic renal failure. Arterial hypertension.

P38-39. Malignant diseases

Epidemiology. Etiology of malignant diseases. International classification of childhood cancer. Distribution of pediatric neoplasms. Signs and symptoms of pediatric cancer. Principles of treatment.

P40-41. Diseases of the central nervous system and neuromuscular disorders

History and examination in pediatric neurology. Diagnostic tests: lumbar puncture, electroencephalography, electromyoneurography, computed tomography and magnetic resonance imaging of the brain, ultrasound and doppler ultrasound, evoked potentials. Neurological symptoms and signs.

P42-43. The critically ill child

Early recognition of the critically ill child. Cardiac arrest and resuscitation. Basic life support. Advanced life support. Recognition and treatment of respiratory distress and failure. Recognition and management of shock.

P44. Medical psychology of the child

Emotional development of the child. The importance and experience of being ill in childhood. Sick child and family. The child in the hospital. The most common psychological disorders of childhood and adolescence.

P45. When do we become adults?

Transition from adolescence to adulthood. Social characteristics of the transition to adulthood. Legal issues. Risk and protective factors for health behaviours in adolescent and young adults. Brain maturation. Cognitive development. Fulfilling adulthood role.

LIST OF SEMINARS WITH EXPLANATION**S1. History**

Basic principles of communication with parents and a sick child. Possible communication difficulties. Pediatric history protocol. Simulation of the history taking from the parent (heteroanamnesis) and from the older child and adolescent (direct anamnestic data)

S2. Physical examination of the child

General principles of physical examination. Practical rules for the successful physical examination. Protocol for pediatric physical exam. Vital signs and measurement. General appearance. Video materials.

S3. Recognition of the seriously ill child

Initial assessment of life-threatening conditions. Assessment of airway patency. Respiratory assessment: Respiratory rate. Signs of dyspnea. Auscultation.

Circulation assessment: Heart rate. Blood pressure. Peripheral pulse. Skin blood flow. Circulation of the central nervous system.

Triage and stabilization of an acutely ill child - Triage scale and time allowed from arrival to the first medical examination. Clinical procedures and equipment to enable the stabilization of vitally compromised child. A safe transport of the critically ill child.

S4. Growth disorders

Growth retardation - Differential diagnosis: Familial short stature. Constitutional delay in growth and puberty. Primordial dwarfism. Growth retardation due to malnutrition. Endocrinological causes of growth retardation. Chromosomal abnormalities. Mendelian hereditary metabolic disorders. Congenital systemic bone disorders. Growth retardation due to diseases of certain organ systems. Tall stature.

S5. Fever

Definition of fever. Body temperature measurement. Causes of fever. "Beneficial" and harmful effects of fever. Symptomatic treatment of fever.

S6. Cough

Cough - a symptom or a disease? Types of coughs. The most common causes of acute and chronic cough depending on the child age. Focused anamnestic questions to distinguish the type and cause of cough. Should a cough be treated and how?

S7. Respiratory disorders in neonates

Neonatal respiratory distress syndrome/surfactant deficiency: Pathogenesis. Clinical presentation. Treatment. Prevention. Transient tachypnea of the newborn.

S8. Perinatal brain damage

Perinatal asphyxia. Hypoxic-ischemic encephalopathy. Treatment and management - resuscitation and other treatment measures.

S9. Neonatal jaundice

Metabolism of bilirubin in the newborn. Physiological neonatal jaundice. Pathological jaundice. Bilirubin toxicity and bilirubin encephalopathy.

S10. Infections in the newborn

Symptoms of infection in the newborn. Early onset and late onset neonatal sepsis: Etiology. Clinical presentation. Treatment. Neonatal pneumonia. Perinatal infections.

S11. Premature infant

The most common birth complications of premature infants. Bronchopulmonary dysplasia. Necrotizing enterocolitis. Osteopenia of prematurity. Retinopathy of prematurity.

S12. Pneumonia

Etiology. Clinical approach and assessment of a child with community-acquired pneumonia. Principles of rational diagnosis and treatment. Laboratory tests and imaging. Empirical antimicrobial therapy.

S13. Tuberculosis

Epidemiological characteristics of tuberculosis in children. Risk of infection and risk of disease progression. Latent tuberculosis. Clinical presentation of pulmonary tuberculosis in children - primary pulmonary tuberculosis and reactivating tuberculosis. Therapeutic approach.

S14. Acute inflammatory airway obstruction

The most common causes of severe acute airway obstruction in children. The difference between extrathoracic and intrathoracic airway obstruction. The specific inflammatory airway obstructions in children. Pharmacotherapeutic approach to viral croup and bronchiolitis.

S15. Childhood asthma

Definition. Epidemiology. Pathogenesis of asthma. Clinical presentation. Classification of asthma severity. Diagnosis. Differential diagnosis. Therapeutic approach: acute asthma exacerbation and long-term treatment of persistent asthma.

S16. Foreign bodies of the airway

Clinical presentation – three stages: initial event, asymptomatic interval and complications. Diagnostic approach. Indications for bronchoscopy. Therapeutic bronchoscopy. First aid for infant and older child during the initial phase of foreign body aspiration. Preventive measures.

S17. Cystic fibrosis

Cystic fibrosis as a rare systemic disease. Etiology and inheritance. Clinical presentation: gastrointestinal and respiratory tract manifestations and the most common complications. Diagnostic criteria for cystic fibrosis. Indications for sweat testing. Therapeutic approach.

S18. Cyanosis

Central cyanosis. Peripheral cyanosis. Causes of cyanosis. Diagnostic approach.

S19. Chest pain

When to be concerned about chest pain in children? Etiology. Non-cardiac causes of chest pain. Potentially life-threatening conditions. Diagnostic approach.

S20. Congenital heart disease

Hemodynamic assessment of congenital heart defects. Atrial septal defects. Ventricular septal defect.

S21. Heart failure

Heart failure in children - etiology and pathophysiology. Clinical presentation depending on the cause and the age of the child. Therapeutic approach.

S22. The most common arrhythmias

Arrhythmias with normal heart rate (Sinus arrhythmia. Multifocal atrial tachycardia). Bradyarrhythmias. Tachyarrhythmias. Classification of antiarrhythmic drugs.

S23. Evaluation of a child with a bleeding diathesis

Main components of hemostasis. Interruption of vascular integrity. Platelet disorders. Immune thrombocytopenia. Pseudothrombocytopenia. Congenital coagulation disorders.

S24. Lymphadenopathy

Definition. Evaluation of a child with an enlarged lymph node. Localized and generalized lymphadenopathy. Etiology. Diagnostic and therapeutic approach.

25. Malignant diseases

Most common malignant diseases in children: Acute lymphoblastic leukemia - Clinical presentation. Diagnosis. Treatment. Brain tumors. Lymphomas (Hodgkin's lymphoma. Non-Hodgkin's lymphoma.) Neuroblastoma. Nephroblastoma - Clinical presentation. Diagnostic approach. Treatment.

S26. Emergencies in oncology

The most common emergencies in pediatric oncology: Mechanical emergencies. Metabolic emergencies. Haematological emergencies.

Tumor lysis syndrome. Hyperleukocytosis. Superior mediastinal syndrome and superior vena cava syndrome.

S27. Urticaria and angioedema

Definition. Acute urticaria. Chronic urticaria. Diagnostic approach. Treatment of urticaria. Hereditary angioedema.

S28. Anaphylaxis. Drug hypersensitivity.

Anaphylaxis - Etiology. Pathophysiology. Diagnostic criteria. Clinical criteria for diagnosis.

Drug hypersensitivity - Definition. Epidemiology. Classification. Diagnostic approach: History. In vivo tests. In vitro tests. Drug provocation test.

S29. Rheumatic diseases

Rheumatic fever. Juvenile idiopathic arthritis. Systemic connective tissue diseases - Systemic lupus erythematosus. Neonatal lupus syndrome. Juvenile dermatomyositis. Scleroderma. Overlap syndromes. Vasculitis syndromes. Autoinflammatory syndromes.

S30. Infant nutrition

Breastfeeding: Properties of breast milk. Physiology of lactation. Advantages of breastfeeding.

Formula feeding: Cow's milk protein-based formulas. Other infant formulas. Complementary feeding. Feeding difficulties in infants.

S31. Acute diarrhea

Causes of acute diarrhea in children. Approach to a child with acute diarrhea. Treatment of diarrhea without dehydration. Treatment of diarrhea with dehydration.

S32. Gastroesophageal reflux disease. Food hypersensitivity.

Gastroesophageal reflux - physiological phenomenon. Pathological reflux (GERD). Clinical presentation. Diagnostic approach. Treatment.

Adverse food reactions. Enterocolitis syndrome caused by food proteins. Epidemiology and pathophysiology. Clinical presentation. Diagnosis. Treatment.

S33. Celiac disease

Approach to a patient with suspected celiac disease. Diagnosis. Clinical presentation. Differential diagnosis of gluten enteropathy. Treatment. Prognosis.

S34. Inflammatory bowel disease

Chron's disease and ulcerative colitis. Etiopathogenesis. Clinical presentation. Complications. Diagnosis. Treatment.

S35. Approach to a child with suspected liver disease

Structure and functions of the liver. Clinical manifestations of the liver disease. Diagnostic tests of excretory, synthetic and metabolic liver functions. Imaging. Liver biopsy.

S36. Emergencies in gastroenterology

Alkali and acid ingestion. Swallowed foreign body. Bleeding from the upper and lower digestive tract. Dehydration. Acute abdomen.

S37. Obesity

Diagnosis of obesity. Clinical presentation. Evaluation and obesity degrees. Etiological classification of obesity. Health risks linked to obesity. Treatment. Prevention.

S38. Diabetes mellitus

Type 1 diabetes mellitus. Genetics and etiology. Pathophysiology. Natural history (stages). Clinical presentation. Laboratory findings. Acute complications. Treatment. Prognosis. Type 2 diabetes mellitus. Maturity onset diabetes of the young (MODY).

S39. Disorders of the thyroid gland

Structure and function of the thyroid gland. Diagnosis of thyroid diseases. Hypothyroidism. Pathogenesis and clinical presentation of congenital and acquired hypothyroidism. Hyperthyroidism. Endemic goiter. Lymphocytic (autoimmune) thyroiditis. Acute purulent thyroiditis.

S40. Precocious puberty

Diagnosis of precocious puberty. Central (true) precocious puberty. Peripheral precocious puberty (Precocious pseudopuberty): Isosexual and heterosexual conditions. Incomplete precocious puberty.

S41. Disorders of sex development

Fetal sexual differentiation. Development of internal and external genitalia. When to suspect a sexual differentiation disorder? Classification. Diagnostic approach. Principles of treatment. Klinefelter syndrome. Turner syndrome. Congenital adrenal hyperplasia.

S42. Diseases related to vitamin intake and metabolism

Hypovitaminosis: Vitamin A. Vitamin D. Prevention of rickets. Folic acid. Hereditary vitamin-dependent disorders. Hypervitaminosis.

S43. Hypoglycemia

Definition. Symptoms. Causes of hypoglycemia in children. Neonatal hypoglycemia. Laboratory tests. Treatment.

S44. Urinary tract infection

Definition and terminology. Epidemiology. Etiology and pathogenesis. Clinical presentation. Diagnostic approach. Recurrent urinary tract infections. Treatment.

S45. Hematuria and proteinuria

Definition of hematuria. Etiology. Diagnosis. Evaluation of hematuria. Hereditary glomerular diseases. Acquired glomerular diseases.

Definition of proteinuria. Pathogenesis. Classification. Nephrotic syndrome.

S46. Acute kidney injury

Etiology and pathogenesis. Clinical presentation. Laboratory findings. Diagnosis and differential diagnosis. Treatment.

Etiopathogenesis of hemolytic-uremic syndrome. Clinical presentation. Laboratory findings. Treatment.

S47. Hypertension

Definition. Causes of arterial hypertension in children. Diagnosis. Primary (essential) hypertension. Hypertensive crisis. Treatment. Antihypertensive drugs for children.

S48. Headache

Headache - the most common neurological disorder in children. Classification of headaches and possible causes. Diagnostic approach. Migraine and migraine variants. Tension headache. Multidisciplinary team in the treatment.

S49. Anomalies of the central nervous system

Neurocutaneous syndromes. Skull development disorders: Craniosynostosis. Microcephaly. Macrocranium. Megalencephaly. Disorders of brain cortical development and organization. Disorders of neural tube development. Hydrocephalus. Neurofibromatosis type 1 and type 2. Tuberous sclerosis. Sturge-Weber syndrome.

S50. Cerebral palsy and neurodevelopmental disorders

Terminology. Risk factors for neurodevelopmental disorders. Clinical approach. Plasticity of the brain. Systematic monitoring.

Cerebral palsy: Definition. Epidemiology and etiology. Classification. Clinical presentation. Diagnostic and therapeutic approach.

S51. Epileptic seizures, epilepsies and epileptic syndromes

Classification of epileptic seizures. Generalized seizures. Focal seizures. Work-up.

Epilepsy and epileptic syndromes. Status epilepticus. Treatment.

S52. Occasional seizures

Neonatal seizures. Affective respiratory attacks. Psychogenic seizures. Syncope. Febrile seizures.

S53. Neuromuscular diseases

History and neurological examination of a child with neuromuscular disease. Muscular dystrophies. Congenital myopathies. Malignant hyperthermia. Periodic palsy. Inflammatory muscle diseases. Motor neuron diseases. Neuromuscular junction disorders. Neuropathies.

S54. Acute disorders of consciousness

Awakening and awareness. The most common causes of impaired consciousness in children. Glasgow coma scale in children. Approach to a child with impaired consciousness. Increased intracranial pressure.

S55. Shock

Pathophysiology. Compensated shock. Uncompensated shock. Irreversible shock. Differential diagnosis of shock. Hypovolemic shock. Septic shock. Anaphylactic shock. Clinical evaluation. Treatment.

S56. Sepsis

Bacteremia and sepsis. Morbidity and mortality. Clinical presentation. Diagnosis. Treatment of sepsis and septic shock. Systemic inflammatory response syndrome.

S57. Infections of the central nervous system

Causes. Pathogenesis. Clinical presentation. Acute aseptic meningitis. Viral encephalitis. Acute myelitis. Acute bacterial meningitis. Brain abscess. Work-up. Treatment.

S58. Environmental health hazards

Data in the world and in Croatia. Prevention of injuries (primary, secondary, tertiary). Injuries in children. Typical injuries by age. Traffic. Poisoning. Drowning. Suffocation. Burns. Weapons and explosive devices. Sports injuries.

S59. Chronically ill child

Chronic disease. The impact of chronic disease on the child, family and the community. Child's reactions to chronic disease. Perceived adjustment to chronic illness scale. Wrong attitudes of parents towards a child's chronic illness. Psychosocial adjustment to illness.

S60. Child abuse and neglect

Definition. Classification. Risk factors. Physical abuse. Neglect. Sexual abuse. Emotional abuse. Munchausen syndrome by proxy. Peer abuse.

S61-70. Seminar paper

Writing a group seminar paper. Each group selects one of the suggested topics (below), and the selection is according to the order of enrollment and the availability of free topics. Seminar papers are sent using official e-mail addresses via the Merlin e-learning system.

The seminar paper has the following parts:

- Title page: name of the faculty, academic year (at the top of the cover); title, names and surnames of the students (in the middle of the title page); place and year (at the bottom of the title page)
- Main body: introduction, main topic (if necessary, in several separate chapters), conclusion
- Appendices (if any)
- References (in alphabetical order)

The seminar paper should be written with one (same) font, 12-point font size. The line spacing should be 1.5 lines. The titles of chapters should be written in 14-point font size. The pages should be numbered.

Topics:

1. Puberty
2. Adolescent health problems
3. Injury control during childhood
4. Pediatric drug therapy
5. Pediatric pain management
6. Thrombotic disorders in children
7. Pediatric stroke syndromes
8. Vascular anomalies
9. A child with hematuria

List of practicals with explanation

The student acquires practical and communication skills that are the basis of pediatric competency. The overall content of the practicals is described, and the number of practicals does not indicate the order. Students will be involved in specific tasks, taking pediatric history and refer to them, suggest laboratory and imaging studies, discuss differential diagnosis and the treatment of patients.

TITLE AND CONTENT OF PRACTICALS	NUMBER OF PRACTICALS
<p>P1 - P2 - P3 - P4</p> <p>Medical history Basic principles of the communication with parents and/or a sick child</p> <p>Medical history taking</p> <ul style="list-style-type: none">Identification of the data providerMain complaintCurrent illnessHistory of growth and developmentImmunizationsPast medical history	4

<p>Family history Short summary of medical history</p>	
<p>P5 - P6 - P7 - P8 - P9 - P10</p> <p>Physical examination Assessment of the general condition Assessment of the vital functions Consciousness Breathing Circulation Body temperature Blood pressure measurement Pulse palpation Examination of the skin and subcutaneous adipose tissue Bone age assessment</p>	<p>6</p>
<p>P11 - P12 - P13 - P14</p> <p>Diagnostic and therapeutic procedures Collection of nasal and throat swabs Peripheral intravenous line placement Administration of intramuscular and subcutaneous injections Interpretation of blood count and biochemical findings Urinalysis Basic interpretation of electrocardiograms Interpretation of X-rays of the thoracic organs, paranasal sinuses and abdomen Ultrasound examination of the brain, heart, lungs and abdomen (observation) Physical methods for treating fever in children and antipyretics Acute management of seizures Management of acute asthma Initial evaluation and management of poisonings Treatment of a child with hypoglycaemia Assessment and management of diabetic ketoacidosis Management of anaphylaxis Rational use of antibiotics in children</p>	<p>4</p>
<p>P15 - P16</p> <p>Growth and development</p> <p>Assessment of physical growth and development</p> <p>a. Anthropometric measurements (body weight, body length/height, head circumference), clinical assessment of development and distribution of subcutaneous adipose tissue, assessment of primary and secondary dentition, assessment of pubertal development according to Tanner criteria, assessment of bone maturity)</p> <p>b. Comparison of measured values with standards for healthy children of the same age and sex. Interpretation of growth charts, calculation of body mass index, prediction of final body height. Basic diagnostic and therapeutic procedures in children with growth and</p>	<p>2</p>

developmental disorders: short stature, high stature, premature puberty, delayed puberty, malnutrition, obesity, hirsutism.	
<p>P17 - P18</p> <p>Nutrition and eating disorders</p> <p>a. Feeding of infant, preschool and school-age child Breastfeeding (characteristics of breast milk, advantages of breastfeeding, difficulties in breastfeeding) Formula feeding Introducing solid foods Infantile colic Acquiring eating habits Balanced diet for preschool and school-age child Prevention of vitamin D and iron deficiency</p> <p>b. Feeding of adolescent and eating disorders Anorexia nervosa Bulimia</p> <p>c. Weight disorders Malnutrition Overweight and obesity</p> <p>d. Vitamin and mineral disorders Rickets Tetany</p>	2
<p>P19 - P20</p> <p>Fluid, electrolyte and acid-base disorders Daily requirements of fluid and electrolytes Pathological fluid losses Clinical signs of dehydration Treatment of dehydration - oral and intravenous rehydration Sodium disorders: hyponatremia, hypernatremia Potassium disorders: hypokalemia, hyperkalemia Acid-base/osmolar gap disturbances Metabolic acidosis – etiology, pathophysiology, treatment</p>	2
<p>P21 - P22</p> <p>Clinical approach to children with inborn errors of metabolism Clinical manifestations of metabolic diseases Pathognomonic clinical findings associated with inborn errors of metabolism Laboratory findings suggestive for inherited metabolic diseases Initial laboratory investigation and specific tests/selective screening Newborn screening Principles of the treatment Psychosocial aspects</p>	2

<p>P23 - P24</p> <p>Clinical approach to children with genetic malformations Family pedigree Family history and physical examination in genetics Significance of early diagnosis of genetic anomalies Indications for prenatal genetic testing Cytogenetic analysis and molecular genetics The most common clinical disorders due to chromosomal and gonosomal abnormalities Genetic counselling</p>	<p>2</p>
<p>P25 - P26 - P27 - P28 - P29 - P30 - P31 - P32</p> <p>Neonatology</p> <p>a. Physical examination of the newborn infant Initial care in the delivery room Resuscitation of the newborn APGAR score Assessment of gestational age Assessment of respiratory disorders Body characteristics of the newborn: the cranium, fontanelles, measurement of body weight, length and head circumference General appearance, crying characteristics, skin color and skin changes, pathological signs: jaundice, cyanosis, bleeding, skin infections, umbilical infections, mastitis Examination of the oral cavity Chest: Auscultation of the lungs, normal and pathological sounds Auscultation of the heart, pulse and blood pressure measurement Palpation of the abdomen, size of the liver and spleen, auscultation of bowel sounds, flatulence External genitalia of female/male term and preterm newborn Examination of the hips Neurological examination of the newborn: normal and pathological position, spontaneous movements, active and passive tone, neonatal primitive reflexes</p> <p>b. Care of the newborn infant Care of the skin and umbilical cord Maintaining a normal body temperature Breastfeeding Formula feeding Normal and pathological stool</p> <p>c. Diagnostic and therapeutic procedures Blood and urine sampling Indications and principles of the phototherapy and exchange transfusion Central venous catheter placement (umbilical catheter, PICC catheter) Intubation of the newborn Basic principles of oxygen therapy Non-invasive respiratory support Mechanical ventilation</p>	<p>8</p>

<p>Cerebral function monitoring (CFM) Therapeutic hypothermia Neonatal screening (metabolic diseases, hearing screening, screening for critical congenital heart defects)</p> <p>d. The most common pathological conditions in neonatology (tachypnea, dyspnea, jaundice, infections, perinatal asphyxia, congenital heart defects, birth injuries)</p>	
<p>P33 - P34 - P35 - P36 - P37 - P38 - P39 - P40</p> <p>Pediatric pulmonology</p> <p>a. Propedeutics Examination of the nose, oral cavity, pharynx, tonsils and external auditory canal Airway patency Auscultation and percussion of the lungs Normal respiratory rates by age Symptoms of respiratory failure</p> <p>b. Diagnostic and therapeutic procedures Indications for the chest X-ray Pulmonary function tests Blood gas analysis Indications for oxygen supplementation Tuberculin sensitivity (PPD) test – procedure and interpretation</p> <p>c. The most common pathological conditions and diseases in pediatric pulmonology (acute upper respiratory tract infections, pneumonia, asthma, cystic fibrosis, airway foreign bodies)</p>	<p>8</p>
<p>P41 - P42 - P43 - P44 - P45 - P46 - P47 - P48</p> <p>Pediatric cardiology</p> <p>a. Propedeutics Specific signs and symptoms Inspection, palpation, auscultation; palpation of peripheral pulses Normal heart rate by age Blood pressure measurement Observation of external signs: cyanosis, venous pulsations, heart hump Interpretation of chest X-rays Standard values and characteristics of electrocardiographic findings in children</p> <p>b. The most common pathological conditions and diseases in pediatric cardiology Hemodynamics in congenital heart diseases Basic features of cyanotic congenital heart diseases Basic features of acyanotic congenital heart diseases Cyanotic spells and management The most common disturbances of heart rate and rhythm Heart failure: signs, symptoms, diagnosis and therapy</p>	<p>8</p>

<p>P49 - P50</p> <p>Immunity and immunodeficiencies Clinical features of the child with immunodeficiency Basic laboratory evaluation of the child with immunodeficiency Principles of treatment Secondary immunodeficiencies Infections in patients with impaired immunity</p>	<p>2</p>
<p>P51 - P52</p> <p>Pediatric allergology Diagnostic testing Principles of treatment of allergic diseases Prevention of allergic diseases The most common pathological conditions and diseases in pediatric allergology (atopic dermatitis, allergic rhinitis, urticaria, angioedema, food allergy, drug allergy)</p>	<p>2</p>
<p>P53 - P54</p> <p>Pediatric rheumatology Common clinical features of rheumatic diseases in children Diagnostic approach Principles of treatment The most common pathological conditions and diseases in pediatric rheumatology (rheumatic fever, juvenile idiopathic arthritis, systemic lupus erythematosus, vasculitis)</p>	<p>2</p>
<p>P55 - P56 - P57 - P58 - P59 - P60 - P61 - P62</p> <p>Pediatric gastroenterology</p> <p>a. Propedeutics Inspection of the abdomen, abdominal topography Superficial and deep palpation of the abdomen Percussion of the abdomen: liver, spleen, lumbar percussion Palpation of the liver and spleen Auscultation of the abdomen (peristalsis and vascular murmurs) Abdominal masses, hernias, flatulence, ascites</p> <p>b. Diagnostic procedures Stool sample collection Preparing the child for endoscopic examinations Digital rectal exam Enema administration</p> <p>c. The most common digestive system pathologies (gastroesophageal reflux, gastritis and peptic ulcer, foreign body ingestion, celiac disease, inflammatory bowel disease)</p>	<p>8</p>

<p>P63 - P64 - P65 - P66 - P67 - P68 - P69 - P70</p> <p>Pediatric endocrinology</p> <p>a. Basic diagnostic and therapeutic procedures in children with growth and developmental disorders: short stature, tall stature, premature puberty, delayed puberty, gynecomastia, malnutrition, obesity, hirsutism</p> <p>b. Diabetes mellitus Diagnosis: history, physical examination (especially assessment of vital functions and hydration), blood glucose testing using test strips and blood glucose meter, measurement of glucose and ketone concentrations in urine using test strips, acid-base and electrolyte analysis. Basic principles of therapy and monitoring of patients: blood glucose monitoring, nutrition and physical activity of the child with diabetes, principles of insulin therapy, basic characteristics of human insulin preparations and insulin analogues, basic principles of insulin pump therapy, treatment of acute complications (hypoglycemia, diabetic ketoacidosis)</p> <p>c. Disorders of the thyroid gland and adrenal glands Diagnosis and principles of treatment of thyroid diseases. Assessment of adrenocortical function. The most common pathological conditions (hypothyroidism, hyperthyroidism, adrenocortical insufficiency, congenital adrenal hyperplasia, Cushing syndrome)</p>	<p>8</p>
<p>P71 - P72 - P73 - P74 - P75 - P76 - P77 - P78</p> <p>Pediatric nephrology</p> <p>a. Propedeutics Palpation of the kidneys and bladder, examination of external genitalia Urine collection for routine and microbiological examination Urinalysis Renal function tests Symptoms and signs of kidney and urinary tract diseases: edema, hypertension, oliguria, polyuria, hematuria, proteinuria</p> <p>b. The most common pathological conditions and diseases of the urinary tract (urinary tract infection, urinary tract abnormalities, vesicoureteral reflux, acute glomerulonephritis, nephrotic syndrome, urolithiasis, acute renal injury)</p>	<p>8</p>
<p>P79 - P80 - P81 - P82 - P83 - P84 - P85 - P86</p> <p>Pediatric hematology and oncology</p> <p>a. Propedeutics Carefully obtained history for iron deficiency anemia, hemolytic anemia, lymphadenopathy and bleeding diathesis Clinical features of blood disorders (pallor, jaundice, hepatomegaly, splenomegaly, lymphadenopathy) Laboratory findings of blood disorders (normal and pathological values of complete blood count, morphological changes of red blood cells, fetal hemoglobin, serum iron, ferritin, bilirubin and haptoglobin) Differential diagnosis of anemia</p>	<p>8</p>

<p>Palpation and description of lymph nodes, liver and spleen Differential diagnosis of enlarged lymph node Types of bleeding and association with bleeding disorders</p> <p>b. Diagnostic procedures Peripheral blood smear Basic interpretation of complete blood count and age-dependent changes in childhood Interpretation of coagulation test results Lymph node puncture, lumbar puncture, bone marrow aspiration (only observation)</p> <p>c. Transfusion therapy Indications for red blood cell transfusions and platelet transfusions Principles of blood component transfusions Risks of blood transfusions</p> <p>d. The most common diseases of blood, hematopoietic organs and solid tumors in children (iron deficiency anemia, hemolytic anemia, hereditary disorders of hemostasis, thrombocytopenia, acquired neutropenia, leukemia, lymphoma, solid malignant tumors) Principles of antitumor therapy Supportive therapy Psychological approach to the child with malignant disease and the family</p>	
<p>P87 - P88 - P89 - P90 - P91 - P92 - P93 - P94</p> <p>Pediatric neurology</p> <p>a. Propedeutics History in neurology Developmental assessment (from 2 months to 2 years)</p> <ul style="list-style-type: none"> - observation (spontaneous movements, behaviour) - assessment of gross and fine motor skills - postural reactions and muscle tone - primitive reflexes - tendon reflexes - sensory functions - social contact <p>Neurologic examination of preschool and school-age children</p> <ul style="list-style-type: none"> - inspection - assessment of the mental state - cranial nerves - motor examination - coordination - sensory functions - tendon reflexes - gait - meningeal signs - cognitive functions - examination of the head and face (head circumference, fontanelles, cranial sutures/dyscrania, dysmorphism) - examination of the spine (deformities, anomalies) 	<p>8</p>

<p>b. Diagnostic procedures Neurophysiological procedures (EEG, evoked potentials, electromyography) Neuroradiologic procedures (cranial ultrasonography, CT, MR) Lumbar puncture - indications - technique - interpretation of the cerebrospinal fluid findings</p> <p>c. The most common pathological conditions and diseases of the nervous system and muscles (headaches, cerebral palsy, epilepsy and epileptic syndromes, neurocutaneous syndromes, neuromuscular disorders, facial palsy)</p>	
<p>P95 - P96 - P97 - P98 - P99 - P100 - P101 - P102</p> <p>The acutely ill child Recognition of life-threatening conditions Basic life support Advanced life support Intubation Vascular access / Intraosseous administration of drugs Post-resuscitation care</p>	8
Total number of practicals	102

Students' obligations

1. Students are required to attend classes regularly (lectures, seminars, practicals). Attendance at all forms of teaching is checked.
2. A student has the right to miss up to 30% of classes (for health reasons). The absence from classes is justified by medical certificate. The compensation of practicals is possible with the agreement of the teaching assistant and with the approval of the Head of the Department.
3. Use of protective equipment and instruments: Students are required to attend practicals in clean medical coats and to bring a stethoscope. Depending on the epidemiological situation, protective masks, latex gloves and other protective equipment will be used.
4. If a student has a possible contagious disease (common cold, acute enteral infection, etc.) and comes to the practical, he is obliged to inform the teacher about his/her health condition, who will assess the risk of student contact with outpatients and hospitalized patients.
5. It is forbidden to record and photograph patients and staff.
6. Students are required to respect good practice of academic behavior with colleagues, teachers and other staff of the Department of Pediatrics.

Students' assessment (types of exams, description of the written / oral / practical exam, scoring and grading criteria)

The **ECTS grading system** is carried out in accordance with the current University of Rijeka Study Regulations and the Student Regulations at the Faculty of Medicine Rijeka (adopted by the Faculty Council of the Faculty of Medicine Rijeka). The ECTS grading scale is a grading system defined in the European Credit Transfer and Accumulation System (ECTS) framework by the European Commission.

The activity and knowledge of students is evaluated and assessed during the course and at the final exam. Out of a total of possible **100 points**, a student can achieve a maximum of **50 points** during the course and up to **50 points** at the final practical/oral exam. Student progress assessment is performed using ECTS (D-A and F) and a numerical system (2-5 and 1). Credits are awarded only when the course has been completed and all required examinations have been successfully taken.

During the course, the student acquires points by assessing the knowledge in the written exams, by achieved success in seminars and by achieved success in practicals.

The Written exam (up to 20 points) is held after the lectures. It has 60 multiple choice questions. A student has passed a written test if he/she answers at least 50% of the questions correctly.

The results of the Written exam are evaluated according to the following table:

Correct answers	Rating	Points
54 - 60	excellent (5)	20
45 - 53	very good (4)	17
36 - 44	good (3)	14
30 - 35	sufficient (2)	10
≤ 29	insufficient (1)	0

Achievement in seminars is assessed by seminar teachers and the student is awarded with a maximum of 20 points. The assessment is based on the activities and knowledge shown during seminars, and the group seminar work.

Achievement in seminars is evaluated according to the following table:

Rating	Points
excellent (5)	20
very good (4)	17
good (3)	14
sufficient (2)	10
insufficient (1)	0

Achievement in practicals is evaluated by teachers and the student is awarded with maximum of 10 points. The assessment is based on the student's activities, knowledge and skills acquired and demonstrated during the practicals.

Achievement in practicals is evaluated according to the following table:

Rating	Points
excellent (5)	10
very good (4)	8
good (3)	7
sufficient (2)	5
insufficient (1)	0

A student who achieves 25 or more points during the course can take the final exam. The final grade reflects the sum of points earned during the course and those earned at the final exam. If the final exam is graded as insufficient, it is considered that the student has not passed the exam regardless of the number of points earned during the course.

A student who achieves less than 25 points during the course is not entitled to take the final exam. The student will have the opportunity for one corrective practical and oral intermediate exam (colloquium). If he passes remedial mid-exam, he/she can take the final exam under the same conditions as those students who have collected 25 points. If he/she fails the remedial mid-exam, he/she is graded F (failing), cannot gain ECTS credits and needs to re-enroll in the course.

The final exam consists of a practical and a theoretical part. The practical part of the exam is a practical test of knowledge, including the physical examination of the patient. Successful practical part of the exam is a condition for taking the theoretical part of the final exam. In case the student did not pass the oral exam, he/she is obliged to repeat it on the following final exam. The theoretical part of the final exam covers the entire teaching material of the course.

The final exam (up to 50 points) is graded according to the following table:

Result	Points
excellent (5)	50
very good (4)	40
good (3)	30
sufficient (2)	25
insufficient (1)	0

The final grade is the sum of ECTS grades achieved during the course and at the final exam. It is expressed by the corresponding percentage, the letter of the alphabet and the numerical grade according to the following table:

Final grade	
A (90-100%)	excellent (5)
B (75-89,9%)	very good (4)
C (60-74,9%)	good (3)
D (50-59,9%)	satisfactory (2)

Exam dates

May 24th 2022

June 7th 2022

July 1st 2022

September 5th 2022

Other important information

Teaching content and other information related to the course Pediatrics is posted on the Merlin platform. Additional information can be obtained continuously during classes from the course coordinator, by personal contact or via e-mail (the e-mail addresses of the teaching staff of the Department of Pediatrics can be found on the Faculty website).

COURSE SCHEDULE FOR ACADEMIC YEAR 2021/2022

Lecture Schedule

All lectures will be held in person at the Department of Pediatrics, Clinical Hospital Centre Rijeka, Istarska 43, 51000 Rijeka – Seminar Hall (main building). We are constantly adapting to changing advice as it emerges during Covid-19 pandemic. Students will be announced about all changes in a timely manner.

Date	Time	Lecture	Teacher
28/03/2022 (Monday)	08:45 - 09:30	Lecture 1	Prof. J. Roganović
	09:45 - 10:30	Lecture 2	Assoc.Prof. I. Bilić Čače
	10:45 - 11:30	Lecture 7	Assoc.Prof. A. Milardović
	11:45 - 12:30	Lecture 8	Assoc.Prof. A. Milardović
	12:45 - 13:30	Lecture 5	Assoc.Prof. A. Milardović
29/03/2022 (Tuesday)	08:45 - 09:30	Lecture 6	Assoc.Prof.I. Bilić Čače
	09:45 - 10:30	Lecture 9	Prof. I. Prpić
	10:45 - 11:30	Lecture 10	Prof. I. Prpić
	11:45 - 12:30	Lecture 3	Prof. J. Roganović
	12:30 - 13:15	Lecture 4	Prof. J. Roganović
30/03/2022 (Wednesday)	08:45 - 09:30	Lecture 14	Assoc.Prof.I. Bilić Čače
	09:45 - 10:30	Lecture 15	Assoc.Prof.I. Bilić Čače
	10:45 - 11:30	Lecture 17	Prof. J. Roganović
	11:45 - 12:30	Lecture 18	Prof. J. Roganović
	12:45 - 13:30	Lecture 19	Prof. J. Roganović
31/03/2022 (Thursday)	08:45 - 09:30	Lecture 16	Assoc.Prof.I. Bilić čače
	09:45 - 10:30	Lecture 11	Prof. G. Palčevski
	10:45 - 11:30	Lecture 12	Prof. G. Palčevski
	11:45 - 12:30	Lecture 20	Prof. S. Banac
	12:45 - 13:30	Lecture 26	Prof. J. Roganović

01/04/2022 (Friday)	08:45 - 09:30	Lecture 21	Prof. S. Banac
	09:45 - 10:30	Lecture 22	Prof. S. Banac
	10:45 - 11:30	Lecture 25	Prof. J. Roganović
	11:45 - 12:30	Lecture 23	Prof. S. Banac
	12:45 - 13:30	Lecture 24	Prof. S. Banac
04/04/2022 (Monday)	08:45 - 09:30	Lecture 32	Prof. G. Palčevski
	09:45 - 10:30	Lecture 33	Prof. G. Palčevski
	10:45 - 11:30	Lecture 27	Prof. S. Banac
	11:45 - 12:30	Lecture 28	Prof. S. Banac
	12:45 - 13:30	Lecture 13	Prof. J.Roganović
05/04/2022 (Tuesday)	08:45 - 09:30	Lecture 29	Prof. S. Banac
	09:45 - 10:30	Lecture 30	Prof. S. Banac
	10:45 - 11:30	Lecture 34	Prof. J.Roganović
	11:45 - 12:30	Lecture 35	Prof.J.Roganović
	12:45 - 13:30	Lecture 31	Prof. S. Banac
06/04/2022 (Wednesday)	08:45 - 09:30	Lecture 36	Prof. A. Cvitković Roić
	09:45 - 10:30	Lecture 37	Prof. A.Cvitković Roić
	10:45 - 11:30	Lecture 38	Prof. J. Roganović
	11:45 - 12:30	Lecture 39	Prof. J. Roganović
	12:45 - 13:30	Lecture 44	Assoc.Prof. I. Vlašić Cicvarić
07/04/2022 (Thursday)	08:45 - 09:30	Lecture 40	Prof. I. Prpić
	09:45 - 10:30	Lecture 41	Prof. I. Prpić
	10:45 - 11:30	Lecture 42	Assoc.Prof. K. Lah Tomulić
	11:45 - 12:30	Lecture 43	Assoc.Prof. K. Lah Tomulić
	12:45 - 13:30	Lecture 45	Prof.J.Roganović

Schedule of seminars and practicals

Seminars will be held in person at the Department of Pediatrics, Clinical Hospital Centre Rijeka, Istarska 43, 51000 Rijeka – Seminar Hall (main building) and Cabinet Room.

Practicals will be held in person at the divisions of the Department of Pediatrics, Clinical Hospital Centre Rijeka, Istarska 43, 51000 Rijeka.

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Seminar	Title	Lecturer
S1	History	Assoc.Prof.A.Milardović
S2	Physical examination of the child	L.Ružman, MD
S3	Recognition of the seriously ill child	Assoc.Prof. K. Lah Tomulić
S4	Growth disorders	I.Butorac Ahel, MD
S5	Fever	L.Ružman, MD
S6	Cough	Prof. S. Banac
S7	Respiratory disorders in neonates	Assoc.Prof.I.Bilić Čače
S8	Perinatal brain damage	Assoc.Prof.I.Bilić Čače
S9	Neonatal jaundice	Assoc.Prof.I.Bilić Čače
S10	Infections in the newborn	Assoc.Prof.I.Bilić Čače
S11	Premature infant	Assoc.Prof.I.Bilić Čače
S12	Pneumonia	Prof. S. Banac
S13	Tuberculosis	Prof. S. Banac
S14	Acute inflammatory airway obstruction	Prof. S. Banac
S15	Childhood asthma	Prof. S. Banac
S16	Foreign bodies of the airway	Prof. S. Banac
S17	Cystic fibrosis	Prof. S. Banac
S18	Cyanosis	K. Baraba Dekanić, MD
S19	Chest pain	K. Baraba Dekanić, MD
S20	Congenital heart disease	L. Ružman, MD
S21	Heart failure	L. Ružman, MD
S22	The most common arrhythmias	L. Ružman, MD
S23	Evaluation of a child with a bleeding diathesis	Prof. J. Roganović

S24	Lymphadenopathy	Prof. J. Roganović
S25	Malignant diseases	Prof. J. Roganović
S26	Emergencies in oncology	Prof. J. Roganović
S27	Urticaria and angioedema	Prof. S. Banac
S28	Anaphylaxis. Drug hypersensitivity.	Prof. S. Banac
S29	Rheumatic diseases	Prof. S. Banac
S30	Infant nutrition	K. Baraba Dekanić, MD
S31	Acute diarrhea	K. Baraba Dekanić, MD
S32	Gastroesophageal reflux disease. Food hypersensitivity	K. Baraba Dekanić, MD
S33	Celiac disease	K. Baraba Dekanić, MD
S34	Inflammatory bowel disease	K. Baraba Dekanić, MD
S35	Approach to a child with suspected liver disease	K. Baraba Dekanić, MD
S36	Emergencies in gastroenterology	K. Baraba Dekanić, MD
S37	Obesity	I. Butorac Ahel, MD
S38	Diabetes mellitus	I. Butorac Ahel, MD
S39	Disorders of the thyroid gland	I. Butorac Ahel, MD
S40	Precocious puberty	I. Butorac Ahel, MD
S41	Disorders of sex development	I. Butorac Ahel, MD
S42	Diseases related to vitamin intake and metabolism	I. Butorac Ahel, MD
S43	Hypoglycemia	I. Butorac Ahel, MD
S44	Urinary tract infection	L. Ružman, MD
S45	Hematuria and proteinuria	L. Ružman, MD
S46	Acute kidney injury	L. Ružman, MD
S47	Hypertension	L. Ružman, MD
S48	Headache	J. Radić Nišević, MD PhD
S49	Anomalies of the central nervous system	J. Radić Nišević, MD PhD
S50	Cerebral palsy and neurodevelopmental disorders	J. Radić Nišević, MD PhD
S51	Epileptic seizures, epilepsies and epileptic syndromes	Prof. I. Prpić
S52	Occasional seizures	Prof. I. Prpić
S53	Neuromuscular diseases	J. Radić Nišević, MD PhD
S54	Acute disorders of consciousness	Assoc.Prof.A.Milardović

S55	Shock	Assoc.Prof. K. Lah Tomulić
S56	Sepsis	Assoc.Prof. K. Lah Tomulić
S57	Infections of the central nervous system	J. Radić Nišević, MD PhD
S58	Environmental health hazards	Prof. I. Prpić
S59	Chronically ill child	Assoc.Prof. I. Vlašić Cicvarić
S60	Child abuse and neglect	Prof. I. Prpić
S61-S70	Seminar paper	Prof. J. Roganović

SCHEDULE OF SEMINARS AND PRACTICALS

Practicals (1-24) and Seminars						
	8.4.2022	11.4.2022	12.4.2022	13.4.2022	14.4.2022	15.4.2022
	Fri	Mon	Tues	Wed	Thurs	Fri
8,45 - 9,30	S1	S3	S37	S56	S39	S30
9,45 - 10,30	S2	S11	S55	S38	S19	S40
break						
11,00 - 11,45	P	P	P	P	P	P
11,45 - 12,30	P	P	P	P	P	P
12,30 - 13,15	P	P	P	P	P	P
13,30 - 14,15	P	P	P	P	P	P

Practicals (25-36) and Seminars					
	18.4.2022	19.4.2022	20.4.2022	21.4.2022	22.4.2022
	Mod	Tues	Wed	Thurs	Fri
8,45 - 9,30		S5	S12	S13	S14
9,40 - 10,25		S4	S23	S24	S25
10,35 - 11,20		S6	S18	S20	S21
break					
12,00 - 12,45		P	P	P	P
12,45 - 13,30		P	P	P	P
13,30 - 14,15		P	P	P	P

Practicals (37-51) and Seminars					
	25.4.2022	26.4.2022	27.4.2022	28.4.2022	29.4.2022
	Mon	Tues	Wed	Thurs	Fri
12,00 - 12,45	P	P	P	P	P
12,45 - 13,30	P	P	P	P	P
13,30 - 14,15	P	P	P	P	P
break					
14,30 - 15,15	S31	S33	S49	S53	S57
15,25 - 16,10	S32	S8	S50	S54	S35
16,20 - 17,05	S7	S9	S34	S22	S10

Practicals (52-66) and Seminars					
	2.5.2022	3.5.2022	4.5.2022	5.5.2022	6.5.2022
	Mon	Tues	Wed	Thurs	Fri
8,45 - 9,30	S16	S27	S52		
9,40 - 10,25	S48	S51	S29	S44	S46
10,35 - 11,20	S17	S28	S58	S45	S47
break					
12,00 - 12,45	P	P	P	P	P
12,45 - 13,30	P	P	P	P	P
13,30 - 14,15	P	P	P	P	P

Practicals (67-81) and Seminars					
	9.5.2022	10.5.2022	11.5.2022	12.5.2022	13.5.2022
	Mon	Tues	Wed	Thurs	Fri
10,00 - 10,45	S61	S63	S65	S67	S69
11,00 - 11,30	S62	S64	S66	S68	S70
break					
12,00 - 12,45	P	P	P	P	P
12,45 - 13,30	P	P	P	P	P
13,30 - 14,15	P	P	P	P	P

Practicals (82-102) and Seminars					
	16.5.2022	17.5.2022	18.5.2022	19.5.2022	20.5.2022
	Mon	Tues	Wed	Thurs	Fri
8,45 - 9,30		S38	S42		P

9,40 - 10,25		S36	S59	S26	P
10,35 - 11,20		S41	S43	S60	P
break					
12,00 - 12,45	P	P	P	P	P
12,45 - 13,30	P	P	P	P	P
13,30 - 14,15	P	P	P	P	P
14,15 - 15,00		P	P	P	

Total hours of seminars = 70

Total hours of practicals = 102

PRACTICALS – TEACHERS AND GROUPS

TEACHER	8.4.2022	11.4.2022	12.4.2022	13.4.2022	14.4.2022	15.4.
	Fri	Mon	Tues	Wed	Thu	
J. Roganović	A	A	A	A		
S. Banac	B	B	B			
I. Prpić						
J. Radić Nišević	C					
K. Baraba Dekan						

TEACHER	18.4.2022	19.4.2022	20.4.2022	21.4.2022	22.4.2022
	Mon	Tues	Wed	Thurs	Fri
I. Prpić		C	C	D	D
J. Radić Nišević		D	D	E	E
K. Baraba Dekanić		E	E	A	A
L. Ružman		A	A	B	B
S. Flajšman Raspor		B	B	C	C

TEACHER	2.5.2022	3.5.2022	4.5.2022	5.5.2022	6.5.2022
	Mon	Tues	Wed	Thurs	Fri
J. Roganović	B	B	B	C	C
J. Radić Nišević	C	C	C	D	D
K. Baraba Dekanić	D	D	D		
I. Prpić				E	E
L. Ružman	E	E	E	A	A
S. Šegulja	A	A	A	B	B

TEACHER	9.5.2022	10.5.2022	11.5.2022	12.5.2022	13.5.2022
	Mon	Tues	Wed	Thurs	Fri
S. Banac	D	D	D	E	E
J. Radić Nišević	E	E	E	A	A
K. Baraba Dekanić	A	A	A	B	B
L. Ružman	B	B	B	C	C
M. Zaninović	C	C	C	D	D

TEACHER	16.5.2022	17.5.2022	18.5.2022	19.5.2022	20.5.2022
	Mon	Tues	Wed	Thurs	Fri
S. Banac	A	A	A	B	B
I. Prpić	B	B	B		
J. Roganović				A	A
J. Radić Nišević	C	C	C	D	D
K. Baraba Dekanić	D	D	D	C	C
S. Flajšman Raspored	E	E	E	E	E