STUDIES IN ENGLISH
PEDIATRICS

IX SEMESTER

WEEK	No h	SUBJECT
I	3	Pediatric History Pediatric examination
II	3	Development and Behavior
III	3	Puberty and Adolescence
IV	3	Physiology of fluids, electrolits and disturbances of fluids, electrolits and acidobasis equilibrium
V	3	Nutrition and disturbances of nutrition
VI	3	Inborn errors of metabolism
VII	3	Genetics
VIII	3	Neonatology
IX	3	Neonatology
X	3	Neonatology
XI	3	Immunology
XII	3	Alergology
XIII	3	Pulmology
XIV	3	Pulmology
XV	3	Pulmology
XIV	3	Cardiology
XV	3	Cardiology

Last week in semester: colloquium

X SEMESTER

WEEK	No of Lessons	SUBJECT
I	3	Endocrinology
II	3	Endocrinology
III	3	Hematology and Oncology
IV	3	Hematology and Oncology
V	3	Hematology and Oncology
VI	3	Neurology
VII	3	Neurology
VIII	3	Gastroenterology
IX	3	Gastroenterology
X	3	Gastroenterology
XI	3	Nephrology
XII	3	Nephrology
XIII	3	Nephrology
XIV	3	Rheumatology
XV	3	Emergencies in pediatrics

Last week in semester: colloquium

PEDIATRICS
STUDY PROGRAM: INTEGRATED STUDIES IN MEDICINE
DEPARTMENT: DEPARTMENT OF PEDIATRICS
COURSE TITLE / PEDIATRICS
Condition:
INTERNAL MEDICINE; INFECTIOUS DISEASES (EXAM), PHARMACOLOGY (EXAM), NEUROLOGY (EXAM)
Year of study
Winter semester (hours/week): Lectures 3; Practice: 3
Summer semester (hours/week): Lectures 3; Practice: 3
Colloquia: 1
ECTS:
Seminars: 0

Teaching methods
Lectures. Practical education: history, physical examination, differential diagnosis and therapy. Case reports, workshops.

AIM
The basic aim of this course is to get medical students familiar with pediatric population (aged from 0 to 18 years) and to teach them basic principles of growth, development and nutrition. The important goal is to teach medical students to recognize clinical manifestations of common diseases in children, to plan diagnostic procedures, to consider differential diagnosis and therapy. Final goal is to educate physicians to make correct attitudes towards this vulnerable population in general practitioner's office.

GOAL
Knowledge
During lectures students get basic knowledge about pathogenesis, clinical manifestations and therapy of diseases in population aged 0 to 18 years. We strongly emphasize specific issues of this age group (growth, development and nutrition), as well as the importance of preventive measures and accurate diagnosis (careful differential diagnosis and additional diagnostic procedures in the most frequent diseases in this population).
Skills
Correct attitude and skillful communication with patients aged 0 to 18 years and their families. Specific history taking, physical examination and treatment. Specific tasks of general physicians in the absence of pediatrician. Immunization schedule, prevention and counseling for children and adolescents.

COURSE DESCRIPTION

1.Opening lecture. 2. Growth and development; estimation of growth and development and pathology of growth and development, 3. Genetics; chromosomes and genes, patterns of inheritance and inherited disorders, congenital malformations, Genetic counseling, Prenatal diagnostics, Neonatal screening of inherited diseases, 4. Neonatology; adaptation of newborn to

the extrauterine conditions, Delivery Trauma, Mature and premature newborn, Neonatal jaundice, hemorrhagic disease of the newborn, Infections of the newborn, Respiratory Distress, Hypoxic-ischemic Encephalopathy, 5. Nutrition; Breastfeeding, Cow's milk, nutrition of the premature newborn, Formulas, Diet, 6. Metabolism of water and electrolytes; 7. Rickets; 8. Juvenile diabetes, 9. Thyroid dysfunction; Congenital hypothyroidism, Hashimoto thyreoiditis, Hyperthyreoidism, 10. Obesity and hyperlipoproteinemias, 11. Congenital adrenal hyperplasioa, Cushing's disease, Adisson's disease, Pheochomocytoma, 12. Gastroenterology; diseases of upper and lower gastrointestinal tract, intestinal parasites, abdominal pain, hepatology, non conjugated hyperbilirubinema (Syndrome Gilbert), conjugated hyperbillirubinaemia (Neonatal hepatitis), extra hepatic billiar atresia, chronic hepatitis, 13. Pulmology; Airways in chilDr.en, diseases of upper and lower respiratory tract 15. Pulmonary tuberculosis; primary TBC, post primary TBC, therapy, diagnosis, prevention, BCG immunization, 16. Cardiology; fetal circulation, inborn heart failure (clinical picture, diagnosis, therapy), Rheumatic fever, Bacterial endocarditis, Myocardial diseases, Rhythm disturbances, conduction disturbances, 17. Immunology; Immunological system, Immunodeficiency, 18. Allergology; Urticaria, Quincke edema, Atopic dermatitis, Prevention of allergic diseases, Rheumatology, 19. Bones and muscles; 20. Hematology and Oncology, Anemia's, Disorders of Hemostasis, Screening of hemostasis, thrombocytopenia, Coagulopathy, Vasculopathy, Lymph node enlargement, Acute leukemia, Oncology, Lymphoma, Solid tumors, 21. Social Medicine 22. Neuropediatrics. Normal psychomotor development, Denver develop score, Paroxysmal non epileptic disorder of childhood, Epilepsy and epileptic syndromes of childhood, Headache, treatment of epilepsy and epileptic status, 22.Nephrology; , Urinary tract infections, Vesicoureteral reflux, Reflux nephropathy and renoprotective therapy, Primary glomerulal diseases, Acute ad chronic renal failure, 23.Intoxication; general aspects, first aid, treatment , 24. Pharmacotherapy. Pharmacokinetics and pharmacodynamics in children, doses of the most common drugs used in children, drugs and breastfeeding, history of medication, 25. Adolescence; , growth and development in adolescence, the most common problems of adolescents and their parents, Morbidity, mortality, risk behavior, disorders on nutrition in adolescence, 26. Emergency and resuscitation in pediatrics; Cardiopulmonary – cerebral reanimation in pediatrics, resuscitation and treatment in some specific conditions in pediatrics (drowning, lightning/electrocution etc.)

Practical classes

History taking and physical examination. Physician – patient relationship, cooperability and general status of the patent.

Endocrine and metabolic diseases in pediatrics. Disorders of water and electrolytes and principals of correction of hydromineral disorder, Diabetes, hypothyroidism, hyperthyroidism, congenital adrenal hyperplasia, obesity and hyperlypoproteinemia

Cardiovascular diseases in children. Inborn heart failure, rhythm disturbances, myocarditis and pericarditis, bacterial endocarditis

Respiratory tract diseases in children. Acute and chromic inflammation of upper and lower respiratory tract in children, asthma cystic fibrosis

Nutrition, breastfeeding and formulas, nutritional workshop, principles of nutrition of healthy and sick child

Diseases of urogenital system, congenital malformations of urinary tract, the most common renal diseases, urinary tract infection, acute and chronic renal failure, parenteral and peritoneal dialysis

Hematology and oncology - anemia, leukemia, malignant diseases of childhood, disorders of hemostasis

Immunology, immunodeficiency, anaphylactic shock, allergic diseases, neurodermatitis, arthritis in children
Neonatology, estimation of gestational age, hyperbilirubinaemia, Hypoxic-ischemic encephalopathy, hemorrhagic disease of the newborn, prematurity, nutrition of newborn and premature infant, Respiratory distress syndrome
Neurological and psychiatric diseases in childhood, seizures, epilepsy, lumbar puncture, neurocutaneous diseases
Diseases in adolescence. Anorexia, risky behavior, bulimia, prevention of risky behavior.
Diseases of gastrointestinal tract and liver: infective and chronic diseases of upper and lower gastrointestinal tract, liver diseases
Healthcare of children and adolescents.
Healthcare and social pediatrics
Intoxication in childhood and prevention
Emergency and resuscitation in pediatrics

RECOMMENDED LITERATURE
Compulsory
Illustrated Textbook of Pediatrics: Authors: Tom Lissauer,Will Carroll. Date of Publication: 07/2021: izdavač Mosby; Elsevier., 6.izdanje 2021

OVERVIEW OF THE PEDIATRICS CURRICULUM FOR THE ENGLISH-LANGUAGE MEDICAL STUDY PROGRAM

IX SEMESTER

WEEK	**No h**	**SUBJECT**	
I	3	Intoduce in Pediatrics Pediatric History Pediatric examination	Predojevic1
II	3	Psyhomotor developent and Behavior. Children with special needs	Marić 1
III	3	Growth, Growth disorders, Puberty and Adolescence	Bukara1
IV	3	Physiology of fluids, electrolits and disturbances of fluids, electrolits and acidobasis equilibrium	Bukara 2
V	3	Nutrition and disturbances of nutrition	Bukara 3
VI	3	Care of sick children Inborn errors of metabolism	Marić 1
VII	3	Genetics	Marić 1
VIII	3	Neonatology	Predojevic 2
IX	3	Neonatology	predojevic
X	3	Neonatology	predojevic
XI	3	Immunology	predojevic
XII	3	Alergology	predojevic
XIII	3	Pulmology	predojevic
XIV	3	Pulmology	Bukara 4
XV	3	Pulmology	Maric 1
XIV	3	Cardiology	Marić 1
XV	3	Cardiology	Maric 1

Last week in semester: colloquium

IX SEMESTER realno

	No h	SUBJECT	
	3	Introduce in Pediatrics Pediatric History Pediatric examination	Predojevic
	3	Neonatology	
	3	Neonatology	
	3	Pulmology; alergology	
	3	Immunology; Infective diseases in children	
	3	Growth, Growth disorders, Puberty and Adolescence	Bukara
	3	Nutrition and disturbances of nutrition	
	3	Physiology of fluids, electrolits and disturbances of fluids, electrolits and acidobasis equilibrium	
	3	Pulmology	
	3	Psyhomotor developent and Behavior. Children with special needs	Marić
	3	Care of sick children Inborn errors of metabolism	
	3	Genetics	
	3	Pulmology	
	3	Cardiology	

OVERVIEW OF THE PEDIATRICS CURRICULUM FOR THE ENGLISH-LANGUAGE MEDICAL STUDY PROGRAM

Lecturer	Field	Topics	
Prof Predojević	**Introduce in Pediatrics;**	The child and young person's world ; Major issues in child health in the low income countries;	
	Pediatric History Pediatric examination	Taking a history; An approach to examining children or young people; Obtaining the child's cooperation; Examination; General appearance; Respiratory system; Genital area; Neurology examination; Musculoskeletal examination; Head and neck examination; Cardiovascular system; Gastrointestinal system; Features of history and examination in paediatric practice; Communicating with children and young people. Investigations.	
	Neonatology 1	Physiology of newborn, Prematurity; Feeding, Adaptation to extrauterine life Neonatal resuscitation Size at birth, Newborn infant physical examination	
	Neonatology 2	Stabilizing the preterm or sick infant. The preterm infant Jaundice. Respiratory distress in term infants Hypoxic–ischaemic encephalopathy. Birth injuries. Neonatal seizures. Perinatal stroke Infection. Hypoglycaemia.	
	Immunology, Infective disease in pediatrics	Immunodefitienty, Immunisation; Serious life-threatening infections. Specific bacterial infections. Common viral infections Seasonal viral infections Uncommon viral infections. Prolonged fever.Common child infections,	
	Pulmology , Allergology	Asthma Mechanisms of allergic disease The hygiene hypothesis Clinical evaluation Age of onset of allergic conditions Prevention of allergic diseases Food allergy and food intolerance Eczema Allergic rhinitis and conjunctivitis (rhinoconjunctivitis) Urticaria and angioedema Drug allergy Insect sting hypersensitivity 297	

OVERVIEW OF THE PEDIATRICS CURRICULUM FOR THE ENGLISH-LANGUAGE MEDICAL STUDY PROGRAM

Semester 9			
Lecturer	**Field**	**Topics**	
Prof dr Bukara	**Growth, Growth disorders,**	Normal growth. Measurement . Puberty. Short stature. Tall stature. Abnormal head growth. Early puberty. Delayed puberty.	
	Nutrition and disturbances of nutrition	The nutritional vulnerability of infants and children. Infant feeding. Faltering growth. Other vitamin deficiencies. Features of nutrition in children: Children are particularly vulnerable to the effects of poor nutrition, because of their additional requirements for growth and development. Nutrition of the fetus and early years of childhood affects the risk of developing a range of adult diseases. Malnutrition. Obesity. Early childhood caries	
	Physiology of fluids, electrolits and disturbances of fluids, electrolits and acidobasis equilibrium	Dehydratation, Daily needs of water and electrolytes.Acidosis, Alkalosis, Hyponatremia, Hypokalemia.Vitamin D deficiency-Rachitis	
	Pulmology	Upper respiratory tract infections Upper airways obstruction Lower respiratory tract infections. Cough. Bronchiectasis.	
	Musculoskeletal disorders	Assessment of the musculoskeletal system 483 Variations of normal posture 483 Abnormal posture 485 The painful limb, knee, and back 487 Limp 491 Arthritis 493 Auto-inflammatory syndromes 499	

OVERVIEW OF THE PEDIATRICS CURRICULUM FOR THE ENGLISH-LANGUAGE MEDICAL STUDY PROGRAM

Semester 9			
Lecturer	**Field**	**Topics**	
Doc dr Marić	Normal child development, hearing and vision Developmental problems and the child with special needs	Influence of nature and nurture on development Developmental domains Developmental milestones Assessing if development is normal Pattern of child development Checking developmental progress 37 38 38 40 40 Cognitive development 40 Features of normal child development, hearing and vision: Formal developmental screening and assessment Child health surveillance Hearing Vision	
	Care of the ill child and young person -Inborn errors of metabolism	Medical care Children in hospital Pain in children Prescribing medicines for children Palliative and end-of-life care Ethics Evidence-based practice Communicating serious problems	
	Genetics	Chromosomal abnormalities Patterns of inheritance Dysmorphology Features of the genetic basis of diseases: Rare diseases Genetic investigations	
	Pulmology/Cardiology	**Cystic fibrosis**	
	Cardiology	Epidemiology Aetiology Circulatory changes at birth Presentation Diagnosis Nomenclature Left-to-right shunts Right-to-left shunts Common mixing (blue and breathless) Outflow obstruction in the well child Outflow obstruction in the sick infant Cardiac arrhythmias Syncope Chest pains Rheumatic fever Infective endocarditis Myocarditis/cardiomyopathy Kawasaki disease Paediatric inflammatory multisystem syndrome temporarily associated with COVID-19 (PIMS-TS)	

X semester

OVERVIEW OF THE PEDIATRICS CURRICULUM FOR THE ENGLISH-LANGUAGE MEDICAL STUDY PROGRAM

Semester 10			
Lecturer	**Field**	**Topics**	
Prof Predojević	**Hematology1**	Haematological values at birth and the first few weeks of life. Anaemia.Trombocitopenia. Bone marrow failure syndromes Bleeding disorders Thrombosis in children. Thrombophillia.	
	Oncology 1	Aetiology malignant diseases. Clinical presentation Investigations Management Treatment Supportive care and side-effects of disease and treatment Leukaemia Brain tumours Lymphomas	
	Oncology 2	Neuroblastoma Wilms tumour (nephroblastoma) Soft tissue sarcomas Bone tumours Retinoblastoma Kaposi sarcoma Rare tumours Long-term survivors Palliative and end-of-life care	
	Reumatology 1	Rheumatic fever, Juvenile Rheumatic arthritis. Scleroderma.SLe.Dermatomiosytis	
	Nephrology 1	Assessment of renal function Acute kidney injury. Haemolytic uraemic syndrome. Chronic kidney disease.	

OVERVIEW OF THE PEDIATRICS CURRICULUM FOR THE ENGLISH-LANGUAGE MEDICAL STUDY PROGRAM

Semester 10			
Lecturer	**Field**	**Topics**	
Prof dr Bukara	**Diabetes mellitus1**	Diabetes mellitus 455 Hypoglycaemia 4	
	Endocrinology1	Thyroid disorders 465 Adrenal disorders 468 Disorders of sex development Parathyroid disorders Pituitary disorders	
	Gastroenterology 1	Acute abdominal pain Recurrent abdominal pain Vomiting 236 240 243 Gastroenteritis 2	
	Gastroenterology 2	Malabsorption Chronic non-specific diarrhoea Inflammatory bowel disease Constipation	
	Emeergency in pediatrics 1	The seriously ill child.Accidents and poisoning. Resuscitation – Basic and Advanced Paediatric Life.Foreign body. Circulatory failure – shock. Anaphylaxis Sudden unexpected death in infancy(SIDS)	

OVERVIEW OF THE PEDIATRICS CURRICULUM FOR THE ENGLISH-LANGUAGE MEDICAL STUDY PROGRAM

Semester 10			
Lecturer	**Field**	**Topics**	
Doc.dr Marić	**Neurology 1**	Headache. Seizures. Epilepsies of childhood. Motor disorders. Central motor disorders. Peripheral motor disorders: the neuromuscular disorders.Ataxia	
	Neurology 2,	Cerebrovascular disease. Microcephaly and macrocephaly Neural tube defects and hydrocephalus. Neurocutaneous syndromes. Neurodegenerative disorders. Poliodystrophies	
	Nephrology 1,2,3	Assessment of renal function. Radiological investigations. Congenital anomalies. Urinary tract infection (UTI) Enuresis Hypertension. Renal masses. Renal calculi. Renal tubular disorders. Proteinuria. Haematuria. Hypertension. Renal masses. Renal calculi. Renal tubular disorders.	

X SEMESTER

WEEK	No of Lessons	SUBJECT
I	3	Endocrinology
II	3	Endocrinology
III	3	Hematology and Oncology
IV	3	Hematology and Oncology
V	3	Hematology and Oncology
VI	3	Neurology
VII	3	Neurology
VIII	3	Gastroenterology
IX	3	Gastroenterology
X	3	Gastroenterology
XI	3	Nephrology
XII	3	Nephrology
XIII	3	Nephrology
XIV	3	Rheumatology
XV	3	Emergencies in pediatrics

Last week in semester: colloquium