



Course Regime

Course: General Paediatrics, Clinical Paediatrics

Study Programme: Medicine

Year of the Course: 1 2 3 4 5 6

Semester:

Winter Summer

Course type:

Compulsory Elective

Number of ECTS credits: 12 (General Paediatrics 4+ Clinical Paediatrics 8).

Lecturer(s): Tadej Battelino, David Neubauer, Janez Jazbec, Darja Paro, Rok Orel, Tadej Avčin.

Participating Organisational Units (Paediatric Departments):

Intensive care unit; Endocrinology, diabetes and metabolic diseases;
Gastroenterology, hepatology and nutrition; Haematology and oncology;
Allergology, immunology and rheumatic diseases; Cardiology; Nephrology;
Neonatology; Neurology; Pulmonology; Clinical genetics; Paediatric Psychiatry;
Clinical laboratory.

Parts (Modules) of the Course:

- 1: General Paediatrics (fifth year/9-10th semester of the study)
- 2: Clinical Paediatrics (sixth year/11-12^{ve} semester of the study)

Date of Issue: September 15th, 2018.

A. General part:

1. Course objectives

General Paediatrics: students should acquire knowledge of making diagnosis from history (patients/parents), clinical examination and laboratory tests; be able to accomplish and present the clinical status of children of all ages including infants; perform emergency treatment in urgent situations and learn the valid principles of treatment in various paediatric diseases including congenital diseases; in addition to learn the plan of following paediatric patients in accordance with latest guidelines.

Clinical Paediatrics: students should gain in addition to the course objectives from General Paediatrics also knowledge and understanding of specific paediatric diseases from various specialities within paediatrics such as:

- Gastroesophageal reflux disease, Eosinophilic GI diseases (eosinophilic esophagitis, eosinophilic gastroenteritis, allergic proctitis), Gastritis and peptic ulcer disease (including *Helicobacter pylori* infection), Inflammatory bowel diseases (Crohn's disease, ulcerative colitis), Functional GI disorders (infant colic, regurgitation, constipation, functional abdominal pain, irritable bowel syndrome), Acute and chronic pancreatitis, Cystic fibrosis, Acute and chronic liver and biliary tract disease (including infective, autoimmune, metabolic, structural, toxic etc.), Liver failure and transplantation.
- Neuromuscular diseases: spinal muscular atrophy (classification of severity degree and intrathecal application of nusinersen), Epilepsy (from diagnosis to treatment), Neurophysiological studies (classical electroencephalography, long-term monitoring, EEG in NICU/PICU, overnight polygraphy), Rare neurological diseases and syndromes, Movement disorders, Non-epileptic paroxysmal events and diagnostics, Cerebral palsy (from diagnosis to classification and rehabilitation).
- Newborns at risk (premature, small and large for gestational age), Neonatal nutrition and gastroenterology, Hemodynamic, fluid and electrolyte balance in the newborn, Neonatal haematology and hyperbilirubinaemia, Neonatal dysmorphology, genetic diseases and inborn errors of metabolism, Neonatal neurology, Neonatal infections and immune response in newborns, Neonatal pharmacology, Delivery room management of the newborn, respiratory distress syndrome of the newborn, surfactant application, modes of invasive and non-invasive mechanical ventilation, transportation of the critically ill newborns, hypoxic-ischemic encephalopathy of the newborn, total parenteral nutrition, extreme low gestational age newborns, neonatal abstinence syndrome, cyanotic and acyanotic congenital heart defects, common problems of prematurity.
- Red and white blood cell disorders, Thrombocytopenia, Coagulation disorders, Principles of hematopoietic stem cell transplantation, General principles of paediatric oncology, Leukaemia & Lymphoma in childhood, Tumours of central nervous system, Solid tumours in children, Dying child and principles of palliative care.
- Hemodynamic, fluid and electrolyte balance in children with kidney diseases, Congenital anomalies of the kidney and urinary tract (e.g., dysplastic kidneys, vesicoureteral reflux, pyeloureteral stenosis, posterior urethral valve), Glomerulopathies (including genetic and acquired forms of podocytopathies), Tubulointerstitial diseases (including infectious, autoimmune, metabolic, drugs, toxic causes), Hereditary and cystic diseases of the kidney,

Acute kidney injury (including typical and atypical haemolytic-uremic syndrome), Chronic kidney disease in children (including paediatric peritoneal dialysis, paediatric haemodialysis, paediatric kidney transplantation), Hypertension in children, Voiding dysfunction in children (including urodynamic measurements, bio-feedback training).

- Short stature (hyposomatotropism, Turner syndrome, rare genetic causes), Bone diseases (bone dysplasia, rickets, osteoporosis), Thyroid disorders (congenital hypothyroidism, autoimmune thyroiditis, thyroid cancer), Suprarenal gland disorders (congenital adrenal hyperplasia, adrenoleukodystrophy), Disorders of pubertal development (precocious puberty, late puberty), Disorders of sexual development, Endocrine sequelae of malignant diseases, Childhood obesity.
- Diabetes, continuous subcutaneous insulin infusion, continuous glucose monitoring, Inborn errors of metabolism, Neonatal screening programme, Clinical genetics and syndromology, Laboratory diagnostic of inborn/genetic disorders, Enzyme replacement therapies, Gene-therapies.
- Congenital heart diseases, Non-invasive cardio imaging, Cardiac catheter diagnostics and therapies, Prenatal cardiac diagnostics and therapies, Cardiac rhythm disturbances, Acquired heart diseases, Sport cardiology.
- Paediatric intensive medicine, Surgical intensive medicine, Acute respiratory distress, Multiorgan failure, Trauma intensive medicine, Extra-Corporeal-Mechanical-Oxygenation, Paediatric resuscitation (APLS).
- Pulmonology: Acute infections of the respiratory system, Asthma – diagnosis, management and long-term education and follow-up, Cystic fibrosis, Chronic diseases of the respiratory system – primary ciliary dyskinesia, interstitial lung diseases of childhood, Broncho-pulmonary dysplasia, congenital anomalies of the respiratory track, Acute and chronic respiratory support, Long-term invasive and non-invasive ventilation, Obstructive sleep apnoea syndrome, Exercise induced laryngeal obstruction, Continuous cardio-respiratory monitoring, Blood gas analysis, Lung function testing, Bronchoscopy.
- Allergology: food allergy, inhalatory allergy, allergic march, atopic dermatitis, acute and chronic urticarial rash, anaphylaxis - clinical picture, diagnostic tests and management, immunotherapy, Rheumatology: the most common paediatric rheumatology diseases- juvenile arthritis- definition, classification, clinical picture, differential diagnosis, management, childhood vasculitides, SLE, JDM, autoinflammatory diseases, Clinical immunology: primary immune deficiencies (PID)- classification, clinical signs and management; basic knowledge on recognition of PID.

2. Comprehensive outline of the course organisation

Teaching will include lectures, seminars and clinical rotations.

Lectures are prepared by the teachers for topics that are maybe less suitable for seminars, particularly reviews and difficult topics. During the lectures students are expected to actively participate with questions and comments, and thus make the lessons more interactive, although to a lesser degree than in seminars.

Seminars are prepared by individual student or groups of up to 3 students. The detailed information about the seminars will be given by the mentor for the specific theme. The list of the seminars will be provided in the beginning of the teaching. A seminar is presented by student with PP presentation and a teacher is expected to run afterwards a fruitful discussion with the students on all important aspects of a particular topic.

Clinical rotations are organized in small groups up to 6 students at different clinical departments of the University Paediatric Clinic, as stated in the schedule. An active role is expected from the students in interviewing the patient and their parents and examining the patient at the wards. After clinical examination it is expected to have a comprehensive discussion with the tutor about the symptoms, signs and possible diseases in the child.

Lectures, seminars and clinical rotation are obligatory parts of the course because students attendance is important, and it contributes to a better knowledge and success at the exam. If a student misses a lecture, seminar or part of the clinical rotation, there are no substitute activities. However, a minimum of 80% attendance is necessary to get the final signature and to have a possibility to enter the exam.

3. Required conditions for the final examination (Course Exam)

The secretary will give you the Attendance list on the first day of teaching, where you should collect signatures during your programme at our institution. Attendance has to be registered/confirmed for each day by an academic mentor by her/his signature. The Attendance form with a minimum of 80% of all signatures is mandatory for the final signature at completion of the programme. Additionally, completion of the ERASMUS programme in Paediatrics evaluation form is required for the final signature.

4. Final assessment and examination of knowledge and skills (Course Exam)

If you are a candidate for the final exam in General Paediatrics or/and Clinical Paediatrics you must submit an application to the secretary Ms. Branka Kenda (Working hours: 8.30-12.00). The exam is consisted of a written exam in General Paediatrics and written exam, a practical and an oral exam in Clinical Paediatrics. The dates of written exam will be published at the beginning of the course. A positive score at the written exam qualifies you for the practical and oral exam, which will be held within one to two weeks from the date of the written exam. Written exam is consisted of 40 questions and 51% of positive answers will enable the student to approach for the practical part of the exam. The practical part of the exam is held at the department where an assistant is working. One patient will be examined and presented to the assistant in a structural way as described in the textbook. The candidate will continue with the oral part of the exam immediately after successfully accomplished practical exam.

You have a right to two trials (3rd trial has to be approved by the local Erasmus Coordinator. The Attendance list and identity card are to be presented to the examiner at the time of the practical/oral exam. The secretary will provide the scored written exam. The final grading will consist of the written exam, practical exam score and oral exam score (range 5 (negative) to 10). The proposed literature for the ERASMUS programme is Nelson Essentials of Paediatrics, 8th Edition.

5. Fundamental study material and Supplement reading

1. Lectures (available at the e-learning site).
2. Nelson Essentials of Paediatrics, 8th Edition.

Additional explications and notes:

1. The Course Regime enters in force on the date of issue and remains valid until its revocation or alteration. The Course Regime may not be altered during the academic year. Any changes to the Course Regime may only enter into force starting with the next academic year (changes must be submitted no later than 14 days prior to the start of the academic year as the **new Course Regime**).
2. The Course Regime for *compulsory courses* must be published no later than 14 days prior to the start of the academic year.
3. The Course Regime for *elective courses* is also considered the Elective Course Announcement and must be published no later than the 30th of July prior to the start of the academic year in which it enters in force.
4. The Course Regime must be published in Slovenian and English.
5. In the Course Regime, the »Regulations for the Assessment of Knowledge and Skills for the Single-Cycle Master Study Programmes Medicine and Dental Medicine« will be referred to as "Regulations".

In case of any further questions, please contact the Study Affairs Commission of the UL MF, via e-mail: ksz@mf.uni-lj.si.