



Course: Pediatrics

Course Coordinator: Iva Bilić Čače, MD, PhD, Assist Prof.

Course Collaborators:

Department: Department of Pediatrics, Faculty of Medicine

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

Study year: 4.

Academic year: 2026./2027.

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.):

Pediatrics is a compulsory course in the fourth year of the Integrated Undergraduate and Graduate University Study of Dental Medicine in English. It consists of 15 hours of lectures and 5 hours of practicals, a total of 20 hours. By completing all scheduled teaching duties and successfully passing the final exam, the student gains 1.5 ECTS credits.

The objectives The course Pediatrics aims to acquire basic knowledge and skills in pediatrics. Pediatrics is a medical discipline defined by the object of 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 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 delivering health care to the youngest and most vulnerable age 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 dental care practitioner, enabling students to 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

- To define tasks and unitarist approach to pediatrics
- To describe the basic vital statistical terminology and organisation of maternal and child healthcare.
- To recognise the importance of prevention in children's health
- To associate the main symptoms and signs of the most common childhood diseases with specific clinical conditions and syndromes
- To select appropriate diagnostic procedures for the most common pathological conditions and diseases in pediatrics
- To demonstrate the ability for treatment planning for the most common pediatric diseases
- To analyse and evaluate the course of treatment, its efficacy and outcomes

II. Psychomotor domain - skills

- To practice taking a pediatric history



To apply physical examination of the child
To recognise the child's average physical growth and development and disturbances in growth and development.
To perform basic practical diagnostic and therapeutic procedures under supervision (taking of biological samples, blood pressure measurement, body temperature measurement, methods with a febrile child, application of drugs in children)
To perform basic resuscitation skills of children and management of the most common emergencies in pediatrics
To set optimal therapeutic procedures for the most common diseases in children (with assistance)
To participate in a multidisciplinary approach to the pediatric patient

III. **Affective domain – values and attitudes**

To judge and identify the importance of making a diagnosis in pediatrics and take them into account in one's own practice
To adopt the specifics of approaching a child as a patient in comparison to adults
To appreciate the importance of the biological, emotional, psychological and social characteristics of the child
To apply the acquired knowledge and skills in providing a basic level of psychological and social support to children as patients and their families

During the course Pediatrics, the development of the affective domain has a very important place due to the necessary awareness of the characteristics of the child as a patient.

The content of the course includes following thematic units:

- Introduction to pediatrics
- Growth and development of the child
- History and physical examination of the child
- Medical psychology of the child
- The newborn infant
- Diseases of the digestive system and liver
- Diseases of the endocrine system
- Cardiovascular diseases
- Diseases of the blood and blood-forming organs
- Diseases of the urinary system
- Diseases of the respiratory system and allergic diseases
- Diseases of the central nervous system and neuromuscular disorders
- Use of antibiotics in children
- Use of anesthetics in children

The classes are held at the Pediatric Clinic of the Rijeka University Hospital Center, location "Hospital for Women and Children", Vjekoslava Dukića 7. Lectures will be held from 29.9.2026. to 27.10.2026. every Tuesday at 08:45- 11: and 27.10.2026. at 11.45-14.45 practicals



Assigned reading:

Nelson Essential of Pediatrics, 9th Edition April 2022
Teaching material

Optional/additional reading:

Chaurasia DD. Pediatrics for Students and Practitioners. 2nd edition. CBS Publishers & Distributors Pvt Ltd, India, 2021. ISBN: 9789388725576

COURSE TEACHING PLAN:

The list of lectures (with topics and descriptions):

L1. Introduction to pediatrics

Learning outcomes

Define pediatrics as a branch of medicine. List the goals of pediatrics. Classify developmental age. Define and explain the importance of the infant mortality rate. List the most common causes of child mortality. Explain the organisation of children's health care. Explain the change in morbidity and trends in contemporary pediatrics.

L2. Growth and development of the child

Learning outcomes

To analyse standard growth charts. To calculate the body surface area. To know regular growth patterns in children, failure to thrive and understand short stature. To describe the pattern of decreased growth. To list and describe neonatal reflexes. To define developmental milestones.

L3. History and physical examination of the child

Learning outcomes

Describe history taking and heteroanamnesis in pediatrics. Discuss the peculiarities of the physical examination of the child. Extract and describe throat examination and blood pressure measurement in children.

L4. Medical psychology of the child

Learning outcomes

Describe emotional development of the child. Explain the importance and experience of being ill in childhood. List most frequent psychological disorders in childhood and adolescence. Extract and describe reactions of chronically ill child.

L5. Emergencies in pediatrics

Learning outcomes

The most common emergencies in children. Emergencies in children in the dental office. Medications for use in emergencies in children, indications, contraindications, dosage. Identification of a child at risk, treatment. Transport of a child at risk.

L6. The newborn infant

Learning outcomes

To define the term infant and birth weight classification. Define physiological characteristics of the neonate and premature infant. To understand fetal growth. To explain the transition from intrauterine to extrauterine life. To



illustrate the procedures in normal delivery. To recognise the physiologic characteristics of the newborn. To list the most common birth injuries. To explain the APGAR index.

L7. Diseases of the digestive system and liver

Learning outcomes

Describe oral cavity diseases. Quote the causes of vomiting. Explain causes and characteristics of acute diarrhea and constipation. Describe malabsorption syndrome. Label chronic inflammatory bowel diseases. Describe basic characteristics of liver diseases.

L8. Diseases of the endocrine system

Learning outcomes

Describe the most frequent symptoms and signs of endocrine diseases. List the most important endocrine diseases. Extract and describe diabetes.

L9. Cardiovascular diseases

Learning outcomes

Describe characteristics of cardiologic history and physical examination in children. Quote main diagnostic procedures in cardiovascular diseases. Quote and classify most frequent congenital heart diseases. Quote most frequent disturbances of heart rate and rhythm.

L10. Diseases of the blood and blood-forming organs

Learning outcomes

Describe structure and function of the hematopoietic system. Quote diagnostic tests in pediatric hematology. Explain the approach to the child with blood disorder. Define anemia. Quote the causes of anemia. Quote coagulation disorders. Explain the importance of the collaboration between dentist and pediatric hematologist in oral health as an integral part of general health.

L11. Diseases of the urinary system

Learning outcomes

Describe the most frequent symptoms and signs of the urinary tract diseases in children. Quote diagnostic tests in urinary tract diseases. Describe urinary tract infection. List main features of the acute kidney injury. Define arterial hypertension in children and describe causes.

L12. Diseases of the respiratory system and allergic diseases

Learning outcomes

Describe main features of the respiratory tract related to developmental age. Quote the most important congenital anomalies of the respiratory tract. Classify and describe upper respiratory tract infections. Classify pneumonia in children. Define and describe clinical characteristics of childhood asthma. Recognize suspicion of foreign body aspiration and describe therapeutic approach. Define basic terminology in allergology. Classify allergic and atopic diseases. Quote most frequent allergens in childhood. Define drug allergy. Define anaphylaxis and cite its frequent causes. Discuss the treatment of anaphylaxis. Classify types and list the causes of urticaria. Cite the therapeutic approach to urticaria and hereditary angioedema.

L13. Diseases of the central nervous system and neuromuscular disorders

Learning outcomes



Describe characteristics of history and physical examination in the neuropsychiatry. List main diagnostic tests in neuropsychiatry. Describe the most frequent symptoms and signs of the diseases of the central nervous system and neuromuscular disorders.

L14. Use of antibiotics in children

Learning outcomes

To learn about the most commonly used antibiotics in children. Classification of antibiotics, mechanisms of action, target therapeutic groups. Indications. Contraindications. Side effects.

L15. Use of anesthetics in children

Learning outcomes

The most commonly used local and systemic anesthetics in children. Subgroups of anesthetics, mechanisms of action, target therapeutic groups. Indications. Contraindications. Side effects.

The list of seminars with descriptions:

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The list of practicals with descriptions:

V1. Anamnesis, general clinical examination

Basic principles of communication with a sick child and parents. Taking an anamnesis. Physical examination of a sick child.

V2. Recognizing a seriously ill child

Assessment of life-threatening conditions, vital signs in children.

V3. Practical of providing care to a child in danger

Basic resuscitation procedures. Therapeutic measures in situations where a child is in danger - practical work on models (foreign body in the respiratory system, allergic reaction, anaphylaxis, extensive bleeding, etc.).

V4. Special pediatrics I

Diagnostic and therapeutic approach to the most common pathological conditions related to individual organ systems.

V5. Special pediatrics II

Diagnostic and therapeutic approach to the most common pathological conditions related to individual organ systems.



Students' obligations:

Students are required to attend classes regularly (lectures, seminars, practicals). Attendance at all forms of teaching is checked.

A student has the right to miss up to 20% of classes (for health reasons). A medical certificate justifies the absence from classes. Students who miss more than 20% of classes cannot complete the course.

Use of protective equipment and instruments: Students are required to attend practicals in clean medical coats and to bring a stethoscope. Protective masks, latex gloves, and other protective equipment will be used depending on the epidemiological situation.

If a student has a possible contagious disease (common cold, acute enteral infection, etc.) and comes to the practical, they should inform the teacher about their health condition, who will assess the risk of student contact with outpatients and hospitalised patients.

Recording and photographing patients and staff are not allowed.

Students are required to respect the good practices of academic behaviour among colleagues, teachers, and other staff of the Department of Pediatrics.

Assessment (exams, description of written / oral / practical exam, the scoring criteria):

Student assessment will be carried out according to the current Regulations on Studies of the University of Rijeka.

Student activity and knowledge are evaluated and graded during classes and at the final exam. Out of a total of 100 possible grade points, a student can earn a maximum of 30 points during classes and up to 70 points at the final written and oral exam.

Other important information regarding to the course:

Any use of someone else's text or other form of copyrighted work, as well as the use of ChatGPT or any other tool whose functionality is based on artificial intelligence technology, without a clear and unambiguous indication of the source, is considered a violation of someone else's copyright and the principle of academic honesty and represents a serious violation of student obligations, which entails disciplinary liability and disciplinary measures in accordance with the Regulations on the Disciplinary Responsibility of Students. Consultation hours: During classes, consultations are possible after the teaching day 12-13h with prior agreement with the course leader.



COURSE SCHEDULE (for the academic year 2026./2027.)

All lectures and practicals are held at the Department of Pediatrics, Clinical Hospital Center

Rijeka – locality Sušak.

Date	Lectures (time)	Practicals (time)	Instructor
29.9.2026.	L1 (08:45- 09:30) Introduction to pediatrics		Assist. Prof. I Bilić Čače
29.9.2026.	L2 (09:30 – 10.15) Growth and development of the child		Prof. I Prpić
29.9.2026.	L3 (10:15-11:00) History and physical examination of the child		Assist. Prof. I Bilić Čače
6.10.2026.	L4 (08:45- 09:30) Medical psychology of the child		Prof. assist I Vlašić Cicvarić
6.10.2026.	L5 (09:30 – 10.15) Emergencies in pediatrics		Assist. Prof. K Lah Tomulić
6.10.2026.	L6 (10:15-11:00) The newborn infant		Assist. Prof. I Bilić Čače
13.10.2026.	L7 (08:45- 09:30) Diseases of the digestive system and liver		Prof. I. Prpić
13.10.2026.	L8 (09:30 – 10.15) Diseases of the endocrine system		Assoc. Prof. S. Severinski
13.10.2026.	L9 (10:15-11:00) Cardiovascular diseases		Prof. S. Banac



20.10. 2026.	L10 (08:45- 09:30) Diseases of the blood and blood- forming organs		Prof. S. Banac
20.10. 2026.	L11 (09:30 – 10.15) Diseases of the urinary system		Prof. A. Cvitković Roić
20.10. 2026.	L12 (10:15-11:00) Diseases of the respiratory system and allergic diseases		Prof. S. Banac
27.10.2026.	L13 (08:45- 09:30) Diseases of the central nervous system and neuromuscular disorders		Prof. I. Prpić
27.10.2026	L14 (09:30 – 10.15) Use of antibiotics in children		L Prtorić, MD /Assist. Prof I Bilić Čače
27.10.2026	L15 (10:15-11:00) Use of anesthetics in children		J. Maroević/ Assist. Prof. I Bilić Čače
27.10.2026.		P1-5 (11.45-14.45)	D. Drašković E. Šlabek L. Matko



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	PRACTICALS (Topics)	Teaching hours	Location/Lecture room
P1	Medical history	1	Department of Pediatrics
P2	Physical examination	1	Department of Pediatrics
P3	Recognition of the seriously ill child	1	Department of Pediatrics
P4	Special pediatrics I	1	Department of Pediatrics
P5	Special pediatrics II	1	Department of Pediatrics
	TOTAL TEACHING HOURS	5	

	FINAL EXAM DATES
1.	05.11.2026.
2.	17.12.2026.
3.	28.01.2027.
4.	18.02.2027.