

Study program: Integrated Academic Studies in Medicine		
Course title: Intensive Care and Therapy in Paediatrics		
Teacher: Vesna D. Stojanović, Marija V. Knežević Pogančev, Georgios T. Konstantinidis, Jovanka L. Kolarović, Nada M. Vučković, Slobodan D. Spasojević, Gordana V. Vijatov Đurić, Danijela R. Jojkić Pavkov, Svetlana S. Bukarica, Jovan D. Lovrenski, Milanka R. Tatić, Nenad A. Barišić, Ivana I. Vorgučin, Ana S. Uram Benka, Goran S. Rakić, Tatjana Z. Krstić, Gordana M. Vilotijević Dautović		
Course status: elective		
ECTS Credits: 3		
Condition: Paediatrics		
Course aim: The objective of the course is to provide students with information on the most commonly life-threatening conditions in the paediatric population, so that they are ready to timely diagnose and start treat them as young doctors.		
Expected outcome of the course: Acquiring knowledge about diagnostics and the therapy of life-threatened paediatric patients.		
Course description <i>Theoretical education</i> 1. Causes of life-threatening conditions in paediatric age. 2. Etics in Paediatric Intensive Care 3. Transport of critically ill children 4. Paediatric vascular access 5. Principles of invasive and noninvasive vital signs monitoring 6. Autopsy (clinical, forensic). 7. Talk with parents of critically ill children 8. Imaging methods for detection of urgent conditions 9. Emergency conditions of the respiratory system (Croup syndrome; respiratory insufficiency; status asthmaticus; foreign bodies of the airway; mechanical ventilation and air leak syndroma – pneumothorax, pneumomediastinum, pneumoperitoneum; acute respiratory distress syndrome). 10. Emergency conditions of cardiovascular system (Heart rhythm disorders and pharmacology of the cardiovascular system; congenital heart defects; shock). 11. Emergency conditions of central nervous system and muscle disorders (Neurophysiological assessment and monitoring; cerebrovascular accidents; status epilepticus; acute central nervous system infections – meningitis, encephalitis, hypoxic-ischemic encephalopathy; SIDS (<i>Sudden Infant Death Syndrome</i>), SADS (<i>Sudden Arrhythmia Death Syndromes</i>)). 12. Emergency conditions of renal system (Electrolyte and acid-base equilibria disturbances in critically ill paediatric patients; acute kidney injury and modalities of renal replacement therapy in Paediatric Intensive Care Unit; hypertension in Paediatric Intensive Care Unit). 13. Emergency conditions in endocrinology and metabolic disorders (nutrition in critically ill children; inborn errors of metabolism; endocrine diseases significant in the critically ill paediatric patients – tirotoxicosis, hypoglycemia, congenital adrenal hyperplasia, diabetic ketoacidosis). 14. Emergency conditions in hematology (thromboembolism in critically ill paediatric patients; transfusion of blood and blood products; hematological and oncological diseases in Paediatric Intensive Care Units – febrile neutropenia, DIC). 15. Emergency conditions in gastroenterology (acute liver failure and Reye's syndrome; acute abdomen – volvulus, peritonitis, necrotizing enterocolitis, gastrointestinal foreign bodies). 16. Immunology and infections (congenital immunodeficiency and acquired immunodeficiency; bacterial and nosocomial infections; use of antimicrobial drugs and antibiotic resistant microorganisms in Paediatric Intensive Care Units; anaphylactic shock). 17. Sepsis (newborns; childrens). 18. Accidents and traumas (poisoning; bites and stings; drowning; heat caused damages; frostbites; burns and inhalation damage; child abuse; intracranial haemorrhage). 19. Drugs use in a critically ill paediatric patients; analgesia and anesthesia (Neuromuscular blockers; sedation and analgesia). 20. Principles of drug availability in a critically ill paediatric patient, adverse drug reactions and drug interactions 21. Paediatric and neonatal cardiopulmonary resuscitation. <i>Practical education</i> - Anamnesis in urgent conditions in paediatric patients - Assessing level of consciousness in critically ill paediatric patients - Endotracheal and orotracheal intubation - Basic and advanced cardiopulmonary resuscitation - Quick recognition of basic heart rhythm disorders - Medical records keeping		
Literature 1. Shaffner DH, Nichols DG. Rogers' Textbook of Paediatric Intensive Care, 5 th Edition. Wolters Kluwer, 2015.		
Number of active classes	Theoretical classes: 15	Practical classes: 30
Teaching methods Lectures and practices teaching		

Student activity assessment (maximally 100 points)			
Pre-exam activities	Points	Final exam	points
Lectures		Written	60
Practices	20	Oral	
Colloquium		
Essay	20		