

UČNI NAČRT PREDMETA / COURSE SYLLABUS						
Predmet:	Urgentna medicina					
Course title:	Emergency Medicine					
Študijski program in stopnja Study programme and cycle	Študijska smer Study option			Letnik Year of study	Semester Semester	
Dentalna medicina/Dental Medicine 2. stopnja/2nd cycle				1	1	
Vrsta predmeta / Course type				Obvezni/ Compulsory		
Univerzitetna koda predmeta / University course code:						
Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje Clinical training	Druge oblike študija Other forms of study	Samost. delo Individual work	ECTS
21	0	24			45	3
Nosilec predmeta / Lecturer:		Izr. prof. dr. Dušan Mekiš				
Jeziki / Languages:	Predavanja / Lectures:		slovenščina/slovene			
	Vaje / Tutorial:		slovenščina/slovene			
Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:				Prerequisites:		
Vsebina:				Content (Syllabus outline):		
<ol style="list-style-type: none"> Služba nujne medicinske pomoči v Sloveniji Temeljni in nadaljevalni postopki oživljanja pri odrasli osebi Temeljni in nadaljevalni postopki oživljanja pri otroku Temeljni in nadaljevalni postopki pri oskrbi poškodovanca Nenadna huda prsna bolečina in akutni koronarni sindrom Srčno popuščanje, pljučni edem in pljučna embolija Akutna dispneja in respiratorno popuščanje Akutne motnje ritma Hipotenzija in šok Akutna bolečina in krvavitve iz prebavne cevi Akutno ledvično popuščanje in oligurija Sinkopa in nezavest Akutno stanje zmedenosti, agresivnosti in psihotičnosti Akutna možganska kap Epileptični status Akutne zastrupitve Akcidentalna stanja Nujna stanja pri otrocih Poškodba glave Poškodbe prsnega koša Poškodbe trebuha Osteomuskularne poškodbe in poškodbe hrbtenice 				<ol style="list-style-type: none"> Emergency medical services in Slovenia Basic and advanced life support in adults Neonatal and paediatric basic and advanced life support Basic and advanced trauma life support Acute Chest Pain and Acute Coronary Syndromes Congestive Heart Failure, Pulmonary Edema and Pulmonary Embolism Respiratory Distress Disturbances of Cardiac Rhythm and Conduction Hypotension and shock Acute Abdominal Pain and gastrointestinal bleeding Acute Renal Failure Syncope and Coma Altered Mental Status, Psychosis and Aggressiveness Stroke Seizures and Status Epilepticus Toxicology Environmental Injuries Pediatrics Emergency Head Injury Thoracic Trauma Abdominal Injuries Spinal Cord Injuries and Injuries to the Bones, Joints and Soft Tissue Blast, crush and compartment injuries 		

23. Blast, crush in compartment poškodbe 24. Termične poškodbe 25. Posebnosti poškodb pri otroku in nosečnosti 26. Transport poškodovanca in ocenjevalne lestvice 27. Nujna ginekološka stanja 28. Etika v nujni medicini	24. Thermal Injuries 25. Pediatric Trauma and Trauma in Pregnancy 26. Medical Transport and Evaluation Scales 27. Emergency in Gynecology and Obstetrics 28. Ethical issues in Emergency Medicine
Temeljni literatura in viri / Readings:	
BASIC TEXTBOOKS (temeljna literatura):	
<ol style="list-style-type: none"> Tintinalli JE, Kelen GD, Stapczynski JS. Emergency Medicine –A comprehensive study guide – 7th ed., McGraw –Hill, New York, 2011 Grmec Š, Čretnik A, Kupnik D. Oskrba poškodavncev v predbolnišničnem okolju. Univerza v Mariboru; Maribor, 2006. Marx JA, Hockberger RS, Walls RM. Rosen's Emergency Medicine: concepts and clinical practice, 8th ed., Philadelphia, Mosby-Elsevier, 2014. Olasveengen TM, Semeraro F, Ristagno G, Castren M, Handley A, Kuzovlev A, Monsieurs KG, Raffay V, Smyth M, Soar J, Svavarsdottir H, Perkins GD. European Resuscitation Council Guidelines 2021: Basic Life Support Resuscitation 2021 Apr;161:98-114. Van de Voorde P, Turner NM, Djakov J, de Lucas N, Martinez-Mejias A, Biarent D, Bingham R, Brissaud O, Hoffmann F, Johannesdottir GB, Lauritsen T, Maconochie I. European Resuscitation Council Guidelines 2021: Paediatric Life Support. Resuscitation. 2021 Apr;161:327-387. ERC Guidelines 2021 (https://cprguidelines.eu/) KELC, Andrej, KERŠIČ, Robert, KLEMEN, Petra, MEKIŠ, Dušan, MOLLER PETRUN, Andreja, PROSEN, Gregor, STRNAD, Matej, ŠPINDLER, Mateja, ŽIVKOVIČ, Nenad, WAGNER-KOVAČEC, Jožica, MEKIŠ, Dušan (urednik), STRNAD, Matej (urednik). <i>Prva pomoč : navodila za vaje za študente medicine</i>. 1. izd. Maribor: Univerzitetna založba Univerze, 2019. 82 str., ilustr. ISBN 978-961-286-306-7. [COBISS.SI-ID 97368833] Zdravkovič M in sod. Šola anesteziologije, reanimatologije in perioperativne intenzivne medicine, Modul 3: Temeljni in dodatni postopki oživljanja otrok in odraslih; Maribor: UKC, Oddelek za anesteziologijo, intenzivno terapijo in terapijo bolečin , 2022. (https://www.szaim.org/wp-content/uploads/2021/03/Ucbenik-modul3-koncna-november-2022.pdf). 	
ADVANCED TEXTBOOKS (nadaljevalna, dopolnilna literatura):	
<ol style="list-style-type: none"> Grmec Š, Kupnik D (urednika). Nujna stanja, Katedra za prvo pomoč in Katedra za družinsko medicino MF Maribor, Zbirka Acuta, 2008 (in print). Monsieurs KG, Nolan JP, Bossaert LL, Greif R, Maconochie IK, Nikolaou NI, Perkins GD, Soar J, Truhlař A, Wyllie J, Zideman DA; ERC Guidelines 2015 Writing Group. European Resuscitation Council Guidelines for Resuscitation 2015: Section 1. Executive summary. Resuscitation. 2015;95:1-80. 	
Cilji in kompetence:	Objectives and competences:
<ul style="list-style-type: none"> – študent pridobi specialna znanja s področja urgentne medicine – prepozna življenjsko ogrožajoča stanja in zna pravilno ukrepati; – sposoben je samostojno izvajati nujne ukrepe pri življenjsko ogroženem pacientu; – zna pripraviti bolnika/poškodovanca na transport v bolnišnico; – zna uporabiti tehnične pripomočke in medicinske aparate; – pozna zdravila v urgentni medicini – pozna naloge v primeru množičnih nesreč in katastrof – pozna značilnosti helikopterske NMP, tehničnega reševanja v posebnih pogojih, prepozna nevarnosti v okolju in ustrezno ukrepa; – pozna organiziranost službe NMP v Sloveniji in v svetu ter zakonodajo s področja PNMP 	<ul style="list-style-type: none"> – To acquire knowledge in emergency medicine – To recognize critical condition of patients and appropriate care and intervention – fully acquainted with resuscitative problems and techniques – appropriate preparing of patients to transport – to acquire knowledge of drugs in emergency medicine – fully acquainted with prehospital equipment and adjuncts and disaster management – to be acquainted with air transport and organization of emergency medical services in Slovenia
Predvideni študijski rezultati:	Intended learning outcomes:

Znanje in razumevanje: osnovnih patofizioloških dogajanj pri nujnih stanjih z pravilnim ukrepanjem ter obvladanje in znanje na področju ACLS, APLS, ATLS in toksikologije.	Knowledge and Understanding: basics of patho physiological processes in emergency conditions with appropriate medical care and interventions and appropriate preparing in ACLS, APLS, ATLS and toxicology.	
Prenesljive/ključne spretnosti in drugi atributi: zunanja masaža srca, intravenozna pot in alternative, defibrilacija, endotrachealna intubacija in alternativna oskrba dihalne poti, sedacija, analgezija in RSI, torakalna punkcija, imobilizacija	Transferable/Key Skills and other attributes: Cardiac massage, iv access and alternative methods, defibrillation, endotracheal intubation and alternative methods of airway management, mechanical ventilation, sedation and analgesia and RSI, thoracocentesis, immobilization.	
Metode poučevanja in učenja:	Learning and teaching methods:	
Predavanja Vaje (praktične demonstracije)	Lecture Tutorial	
Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
Način (pisni izpit, ustno izpraševanje, naloge, projekt) Praktični kolokvij Pisni izpit ŠTUDIJSKE OBVEZNOSTI ŠTUDENTOV: 75% prisotnost na predavanjih. Opravljene vse vaje (100%) in praktični kolokvij za pristop na pisni izpit POGOJI ZA PRISTOP K POSAMEZNEMU PREVERJANJU ZNANJA: Opravljene vse vaje (100%) in praktični kolokvij za pristop na pisni izpit.	 50% 50%	Type (examination, oral, coursework, project): Practical partial exam Written exam ACADEMIC OBLIGATIONS OF STUDENTS: 75% attendance lectures. Completed all practices (100% and practical partial exam for access to the written exam REQUIREMENTS FOR ACCESS TO INDIVIDUAL KNOWLEDGE CHECKING: Completed all practices (100% and practical partial exam for access to the written exam
Reference nosilca / Lecturer's references:		
PEARSE, Rupert M, NOVAK-JANKOVIČ, Vesna, STECHER, Adela, ŠTIVAN, Feri, GRZYNYUK, Andriy, DAMJANOVSKA, Marija, KOSTADINOV, Ivan, KNEZEVIC, Mile, MALIVOJEVIĆ, Marko, BOROVSŠAK, Zvonko, KAMENIK, Mirt, MEKIŠ, Dušan , OSOJNIK, Irena, KOSEC, Lučka, OSTOJIĆ-KAPŠ, Silva, ALEKSIČ, Dragoslav, GERJEVIČ, Božislava, KALAN, Katja, URŠIČ, Tomaž, et al. Mortality after surgery in Europe: a 7 day cohort study. The Lancet, ISSN 0140-6736. [Printed.], Sep. 2012, vol. 380, [no.] 9847, str. 1059-1065. http://www.sciencedirect.com/science/article/pii/S0140673612611489 , doi: 10.1016/S0140-6736(12)61148-9. [COBISS.SI-ID 4437567], [JCR, SNIP, WoS do 1. 1. 2014: št. citatov (TC): 49, čistih citatov (CI): 49, normirano št. čistih citatov (NC): 19, Scopus do 15. 1. 2014: št. citatov (TC): 63, čistih citatov (CI): 63, normirano št. čistih citatov (NC): 25] ZORKO, Nuška, MEKIŠ, Dušan , KAMENIK, Mirt. The influence of the Trendelenburg position on haemodynamics: comparison of anaesthetized patients with ischaemic heart disease and healthy volunteers. Journal of international medical research, ISSN 0300-0605, 2011, vol. 39, no. 3, str. 1084-1089. http://www.jimronline.net/content/full/2011/103/1674.pdf . [COBISS.SI-ID 3997247], [JCR, SNIP, WoS do 14. 2. 2013: št. citatov (TC): 2, čistih citatov (CI): 2, normirano št. čistih citatov (NC): 1, Scopus do 1. 1. 2014: št. citatov (TC): 3, čistih citatov (CI): 3, normirano št. čistih citatov (NC): 1] MEKIŠ, Dušan , KAMENIK, Mirt. Influence of body position on hemodynamics in patients with ischaemic heart disease undergoing cardiac surgery. Wiener klinische Wochenschrift. Supplementum, ISSN 0300-5178, 2010, vol. 122, suppl. 2, str. 59-62, doi: 10.1007/s00508-010-1346-9. [COBISS.SI-ID 3667775], [JCR, WoS do 17. 1. 2013: št. citatov (TC): 3, čistih citatov (CI): 3, normirano št. čistih citatov (NC): 1, Scopus do 7. 1. 2014: št. citatov (TC): 4, čistih citatov (CI): 4, normirano št. čistih citatov (NC): 2]		

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- MOLLER PETRUN, Andreja, **MEKIŠ, Dušan**, KAMENIK, Mirt. Successful use of rocuronium and sugammadex in a patient with myasthenia. *European journal of anaesthesiology*, ISSN 0265-0215, 2010, vol. 27, no. 10, str. 917-918, doi: 10.1097/EJA.0b013e3283392593. [COBISS.SI-ID 3702591], [JCR, SNIP, WoS do 31. 12. 2013: št. citatov (TC): 11, čistih citatov (CI): 11, normirano št. čistih citatov (NC): 5, Scopus do 31. 12. 2013: št. citatov (TC): 15, čistih citatov (CI): 15, normirano št. čistih citatov (NC): 7]
- BERGER, Jelena, MUŠIČ, Polona, LOGAR ZAKRAJŠEK, Bernarda, **MEKIŠ, Dušan**. Preprečevanje in ukrepanje v primeru zavedanja med splošno anestezijo = Preventing and managing awareness during general anaesthesia. *Zdravniški vestnik*, ISSN 1318-0347. [Tiskana izd.], 2014, letn. 83, št. 2, str. 137-146
- KARNJUŠ, Igor, **MEKIŠ, Dušan**, KRIŽMARIČ, Miljenko. Inhalation sedation with the 'Anaesthetic Conserving Device' for patients in intensive care units : a literature review. *Signa vitae : specialized medical journal*, ISSN 1334-5605, 2016, vol. 11, no. 1, str. 1-24, ilustr. <http://www.signavitae.com/2016/05/>. [COBISS.SI-ID 1538359492]
- KARNJUŠ, Igor, **MEKIŠ, Dušan**, KRIŽMARIČ, Miljenko. Uncontrolled delivery of liquid volatile anaesthetic when using the anaesthetic conserving device. *Journal of clinical monitoring and computing*, ISSN 1573-2614, str. 1-10, ilustr. <https://link.springer.com/article/10.1007/s10877-017-0022-2>, doi: 10.1007/s10877-017-0022-2. [COBISS.SI-ID 1539365828]
- ZAANE, Bas van, et al., NOVAK-JANKOVIČ, Vesna (sodelavec pri raziskavi), STECHER, Adela (sodelavec pri raziskavi), ŠTIVAN, Feri (sodelavec pri raziskavi), GRYNJUK, Andriy (sodelavec pri raziskavi), DAMJANOVSKA, Marija (sodelavec pri raziskavi), KOSTADINOV, Ivan (sodelavec pri raziskavi), KNEŽEVIČ, Mile (sodelavec pri raziskavi), MALIVOJEVIČ, Marko (sodelavec pri raziskavi), BOROVSŠAK, Zvonko (sodelavec pri raziskavi), KAMENIK, Mirt (sodelavec pri raziskavi), **MEKIŠ, Dušan** (sodelavec pri raziskavi), OSOJNIK, Irena (sodelavec pri raziskavi), KOSEC, Lučka (sodelavec pri raziskavi), OSTOJIC-KAPŠ, Silva (sodelavec pri raziskavi), ALEKSIČ, Dragoslav (sodelavec pri raziskavi), GERJEVIČ, Božislava (sodelavec pri raziskavi), KALAN UŠTAR, Katja (sodelavec pri raziskavi), URŠIČ, Tomaž (sodelavec pri raziskavi), et al. Nonelective surgery at night and in-hospital mortality : prospective observational data from the European Surgical Outcomes Study. *European journal of anaesthesiology*, ISSN 0265-0215, Jul. 2015, vol. 32, iss. 7, str. 477-485. <http://dx.doi.org/10.1097/EJA.0000000000000256>, doi: 10.1097/EJA.0000000000000256. [COBISS.SI-ID 2688940]
- ZADEL, Sabina, STRNAD, Matej, PROSEN, Gregor, **MEKIŠ, Dušan**. Point of care ultrasound for orotracheal tube placement assessment in out-of hospital setting. *Resuscitation*, ISSN 1873-1570. [Online ed.], 2015, vol. 87, no. , str. [1-6], ilustr. http://ac.els-cdn.com/S0300957214008156/1-s2.0-S0300957214008156-main.pdf?_tid=59e6f5fc-7ebd-11e4-a1ae-00000aab0f26&acdnat=1418031425_06c848659cf50b5f4f271de62ded28ff, doi: 10.1016/j.resuscitation.2014.11.006. [COBISS.SI-ID 5187903]