	UČNI NAČRT PREDMETA/COURSE SYLLABUS
Predmet Course title	Kardiovaskularna in respiratorna fizioterapija Cardiovascular and Pulmonary Physiotherapy

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Fizioterapija / 2. stopnja	Ni smeri študija	1. letnik	2.
Physiotherapy / 2nd Cycle	No study field	1st year	2nd

Vrsta predmeta/Course type	obvezni/obligatory
Univerzitetna koda predmeta/University course code	2_FTH_1_UN5

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Laboratory work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
30		30			180	8

Nosilec predmeta/Lecturer:	izr. prof. dr. Tomislav Mirković
Jeziki/ Languages: Predavanja/Lectures:	slovenski/Slovenian
Vaje/Tutorial:	slovenski/Slovenian

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	Prerequisites:
• Vpis v prvi letnik študijskega programa. • Študent mora pred izpitom pripraviti in predstaviti ter zagovarjati projektno/raziskovalno nalogo.	• A prerequisite for inclusion is enrolment in the first year of study. • Student has to prepare, present and defend a project/research paper before the exam.

Vsebina:	Content (Syllabus outline):
• *Vloga kardiovaskularne in respiratorne fizioterapije v enoti intenzivne nege in/ali terapije.* • *Anatomija in fiziologija kardio vaskularnega in respiratornega sistema. (podrobneje).* • *Kardiovaskularna in respiratorna obolenja, ki povzročajo dihalno stisko tako, akutno kot kronično. (patologija)* • *Obravnava pri stabilnih kroničnih pljučnih obolenjih in njihova poslabšanja.* (Pljučna fibroza, Kronična obstruktivno pljučno oboljenje - KOPB, Bronhialna astma..).	• *The role of cardiovascular and respiratory physiotherapy in the intensive care unit and / or therapy.* • *Anatomy and physiology of the cardiovascular and respiratory systems. (more details).* • *Cardiovascular and respiratory diseases causing both acute and chronic respiratory distress. (pathology)* • *Treatment of stable chronic lung diseases and their exacerbation.* (Pulmonary fibrosis, Chronic obstructive pulmonary disease - COPD, Bronchial asthma ..).

• *Obravnava pacienta pri akutni dihalni stiski* (akutna dihalna stiska odraslih – ARDS, pljučni edem, pljučnica, akutno poslabšanje KOPB…). • *Invazivna Mehanska Ventilacija (IMV), delovanje, mehanizmi, učinki na kardio pulmonalni sistem.* • *Uporaba in načini IMV pri kardio respiratornih zapletih.* • *Pristop, obravnava in izvedba NIVa.* • *Priprava bolnikov za umetno predihavanje na domu.* • *Seminarske naloge (pristop in obravnava različnih vsebin kardio respiratorne fizioterapije).*	• *Treatment of the patient with acute respiratory distress* (acute respiratory distress of adults - ARDS, pulmonary edema, pneumonia, acute exacerbation of COPD). • *Invasive Mechanical Ventilation (IMV), function, mechanisms, effects on the cardiopulmonary system.* • *Use and methods of IMV in cardio-respiratory complications.* • *Approach, treatment and implementation of NIV.* • *Preparation of patients for artificial respiration at home.* • *Seminar assignments* (approach and discussion of various contents of cardio respiratory physiotherapy).

Temeljna literatura in viri/Readings:

Temeljna literatura/Basic literature

- Des Jardins, T. (2013). *Cardiopulmonary Anatomy and Physiology: Essentials of Respiratory Care.* 6th Edition. NY, USA: Delmar cengage Learning.
- Cairo, J. M. (2020). *Pilbeam's Mechanical Ventilation Physiological and Clinical Applications.* 7th Edition. St. Louis, USA. Elsevier.
- Des Jardins, T. in Burton, G. G. (2016). *Clinical manifestations and assesment of respiratory disease.* 7th Edition. St. Louis, USA. Elsevier.

Priporočljiva literatura/Recommended literature

- Zborniki strokovnih seminarjev 'Respiracijska in kardiovaskularna fizioterapija' izdala sekcija za respiratorno in kardiovaskularno fizioterapijo društva fizioterapevtov Slovenije (19. junij 2000, 20. junij 2001, 22. november 2003, 23. december 2004, 24. marec 2006, 25. maj 2008, 29. september 2012, 31. september 2014, 32. september 2015, 33. oktober 2016), Zbornik predavanj 'Oskrbe bolnika, ki potrebuje umetno ventilacijo', sekcija medicinskih sester za anesteziologijo in intenzivno nego in terapijo ter transfuziologijo, Portorož maj 2002).
- Moffat, M. in Frownfelter, D. (2007). *Cardiovascular/Pulmonary Essentials. Applying the Preferred Physical Therapist Practice Patterns.* USA: Slack Incorporated.
- Wilkins, R. L. et al (2009). *Egan's Fundamentals of Respiratory Care.* 9th Edition. St. Louis, USA. Mosby/Elsevier.

Cilji in kompetence:	Objectives and competences:
Učna enota prispeva predvsem k razvoju naslednjih splošnih in specifičnih kompetenc: • profesionalna komunikacija s strokovnjaki drugih znanstvenih področij in usposobljenost za delovanje v medpoklicnih timih,	*The learning unit contributes mainly to the development of the following general and specific competences:* • professional communication with experts in other scientific fields and the ability to work in interprofessional teams,

• celovito kritično mišljenje, sposobnost analize, sinteze in predvidevanja rešitev s področij kardiopulmonalne fizioterapije, • sposobnost pri delovanju v najzahtevnejših okoljih dela intenzivne terapije in nege, • usposobljenost za kakovostno in varno strokovno delo na področju kardiopulmonalne terapije, • usposobljenost za komuniciranje v domačem in mednarodnem okolju, • avtonomnost pri odločanju in odgovornost za sprejete odločitve, • obvladovanje raziskovalnih metod, postopkov, procesov in tehnologije, • usposobljenost za prepoznavanje potreb po spremembah in uvajanje inovacij v strokovno okolje, • avtonomnost pri pisanju strokovnih in znanstvenih besedil, • zavezanost profesionalni etiki, • sposobnost za prepoznavanje potreb po spremembah, kritično uvajanje inovacij, obvladovanje sprememb, odločanje in sprejemanje odgovornosti, • razumevanje patofizioloških dogajanj pri različnih kardiopulmonalnih stanjih, • usposobljenost za fizioterapevtsko obravnavo različnih kardiopulmonalnih patoloških stanj.	• comprehensive critical thinking, the ability to analyse, synthesise and predict solutions in the field of cardiopulmonary physiotherapy, • the ability to work in the most demanding environments of intensive care and nursing, • qualification for high quality and safe professional work in the field of cardiopulmonary therapy, • the ability to communicate in the domestic and international environment, • autonomy in decision making and responsibility for decisions made, • mastery of research methods, procedures, processes and technologies, • the ability to identify the need for change and introduce innovations in the professional environment, • autonomy in writing professional and scientific texts, • commitment to professional ethics, • the ability to identify the need for change, critically innovate, manage change, make decisions and take responsibility, • understanding of pathophysiological events in various cardiopulmonary conditions, • the ability to provide physiotherapy treatment for various cardiopulmonary pathological conditions.

Predvideni študijski rezultati:	Intended learning outcomes:
Študent/študentka: • pozna osnove kardiopulmonalne fiziologije in zna aplicirati različne metode terapije za posamezno patološko stanje, • razume patofiziološka procese pri različnih kardiopulmonalnih stanjih, • razvije sposobnosti za obravnavo in terapijo različnih kardiopulmonalnih patoloških stanj, • se usposobi za samostojno obravnavo kardiorespiratornih obolenj, kritično presoja bolnikovo stanje, analizira in predvideva razvoj bolnikovega stanja.	*Students:* • know the basics of cardiopulmonary physiology and know how to apply different methods of therapy for an individual pathological condition, • understand pathophysiological processes in various cardiopulmonary conditions, • develop the ability to treat various cardiopulmonary pathological conditions, • are trained for independent treatment of cardiorespiratory diseases, critically assess the patient's condition, analyse

	and predict the development of the patient's condition.

Metode poučevanja in učenja:	Learning and teaching methods:
• *predavanja* z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov), • *seminarske vaje:* predstavitev in uspešen zagovor projektne/raziskovalne naloge (reševanje problemov, študije primera, kritično presojanje, diskusija, refleksija izkušenj, vrednotenje, projektno delo, timsko delo).	• *lectures* with active student participation (explanation, discussion, questions, examples, problem solving), • *seminar tutorial:* presentation and successful defence of a project/research paper (problem solving, case studies, methods of critical thinking, discussion, reflection on experience, evaluation, project work, teamwork).

Načini ocenjevanja:	Delež (v %) Weight (in %)	Assessment:
Načini: • izpit • izdelava, predstavitev in zagovor projektne/raziskovalne naloge Ocenjevalna lestvica: ECTS.	70 % 30 %	Types: • examination • preparation, presentation and defence of the project/research paper Grading scheme: ECTS.