

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

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Fizioterapija / 1. stopnja	Ni smeri študija	2. letnik	3.
Physiotherapy / 1 st Cycle	No study field	2 nd year	3 rd

Vrsta predmeta/Course type obvezni/obligatory

Univerzitetna koda predmeta/University course code FTH 2 UN 5

Predavanja Lectures	Sem. vaje Tutorial	Kab. vaje Cabinet tutorial	Lab. vaje Laboratory work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
45		45			90	6

Nosilec predmeta/Lecturer: Janko Rakef, pred.

Jeziki/ Languages:	Predavanja/Lectures:	slovenski/Slovenian
	Vaje/Tutorial:	slovenski/Slovenian

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:

Prerequisites:

Vpis v drugi letnik študijskega programa.	A prerequisite for inclusion is enrolment in the first year of study.
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Vsebina:

Content (Syllabus outline):

<ul style="list-style-type: none"> • <i>Kaj je Kardiorespiratorna fizioterapija (KR F) in njena vloga v rehabilitaciji.</i> • <i>Vloga in delo kardiorespiratornega fizioterapevta (KR F) v enotah intenzivne nege in terapije.</i> • <i>Anatomija in fiziologija kardiorespiratornega sistema.</i> • <i>Patofiziologija in obolenja kardiorespiratornega sistema.</i> • <i>Uporaba posameznih metod za organizacijo in načrtovanje (KR F): izvajanje (KR F) s pomočjo ustreznih fizioterapevtskih tehnik in metod.</i> • <i>Ocenjevanja zdravstvenega stanja bolnika, postavljanje (KR F) diagnoz: predlaganje ustreznih kardiorespiratornih obravnav in vodenje dokumentacije.</i> 	<ul style="list-style-type: none"> • <i>What is Cardiorespiratory Physiotherapy (KR F) and its role in rehabilitation.</i> • <i>The role and work of a cardiorespiratory physiotherapist (KR F) in intensive care units. Anatomy and physiology of the cardio-respiratory system.</i> • <i>Pathophysiology and diseases of the cardiorespiratory system.</i> • <i>Use of individual methods for organization and planning (KR F): implementation (KR F) with the help of appropriate physiotherapeutic techniques and methods.</i> • <i>Assessment of the patient's health, making (KR F) diagnoses, proposing</i>
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<ul style="list-style-type: none"> • <i>Prepoznavanje patologij s pomočjo RTG in CT posnetkov pljuč in srca.</i> • <i>Prepoznavanje odstopanj vrednosti plinskih analiz arterijske krvi (PAAK).</i> • <i>Osnove mehanske ventilacije.</i> • <i>Neinvazivna ventilacija (NIV), pristop, algoritem, vodenje, beleženje dokumentacije.</i> • <i>Reševanje primerov.</i> • <i>Pristop k obravnavi posameznih patoloških stanj.</i> • <i>Uporaba različnih naprav in pripomočkov za izvajanje (KR F).</i> • <i>Evalviranje rezultatov in učinkovitosti (KR F).</i> • <i>Sodelovanje v interdisciplinarnem in multidisciplinarnem timu.</i> 	<p><i>appropriate cardiorespiratory treatments and keeping records.</i></p> <ul style="list-style-type: none"> • <i>Recognition of pathologies by means of X-ray and CT images of the lungs and heart.</i> • <i>Recognition of deviations of values of gas analyzes of arterial blood (PAAK).</i> • <i>Basics of mechanical ventilation.</i> • <i>Non-invasive ventilation (NIV), approach, algorithm, management, documentation.</i> • <i>Case resolution.</i> • <i>Approach to the treatment of individual pathological conditions.</i> • <i>Use of various devices and aids for implementation (KR F).</i> • <i>Evaluation of results and efficiency (KR F).</i> • <i>Participation in an interdisciplinary and multidisciplinary team.</i>
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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. (2016). *Pilbeam's Mechanical Ventilation Physiological and Clinical Applications*. 6th Edition. St. Louis, USA. Elsevier.
- Des Jardins, T. George G. Burton (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.
- Robert L Wilkins at al (2009). *Egan's Fundamentals of Respiratory Care*. 9th Edition. St. Louis, USA. Mosby/Elsevier.
- Knafelj, R. (2018). *Nadzorovano predihavanje*. Ljubljana : Društvo Iatros, društvo za napredek v medicini.

Cilji in kompetence:

Učna enota prispeva predvsem k razvoju naslednjih splošnih in specifičnih kompetenc:

Objectives and competences:

The learning unit mainly contributes to the development of the following general and specific competencies:

<ul style="list-style-type: none"> • uporabo teoretičnega in praktičnega znanja pri organizaciji, načrtovanju in izvajanju dela, • izvajanje kardiovaskularne in respiratorne fizioterapije s pomočjo ustreznih fizioterapevtskih metod in tehnik, • ocenjevanje zdravstvenega stanja pacienta, določitev vrste in obsega funkcionalnih omejitev kardiovaskularnega in respiratornega sistema, postavljanje fizioterapevtske diagnoze, predlaganje ustrezne kardiovaskularne in respiratorne fizioterapevtske obravnave in vodenje predpisane dokumentacije, • uporabo naprav in pripomočkov za izvajanje kardiovaskularne in respiratorne fizioterapije, • evalviranje rezultatov in učinkovitosti terapije (kritična refleksija), • sodelovanje v fizioterapevtskem, interdisciplinarnem in multidisciplinarnem timu. 	<ul style="list-style-type: none"> • the use of theoretical and practical knowledge in organization, planning and implementation of work, • performing cardiovascular and pulmonary physiotherapy using the methods and techniques, • assessment of the patient's health status, determination of the type and extent of functional restrictions of the cardiovascular and respiratory system, setting a physiotherapeutic diagnosis, proposing the appropriate cardiovascular and pulmonary physiotherapeutic treatment and documentation management, • the use of devices and tools for implementation of cardiovascular and pulmonary physiotherapy, • evaluation of results and efficacy of therapy (critical reflection), • participation in the physiotherapeutic, interdisciplinary and multidisciplinary team.
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Predvideni študijski rezultati:

Študent/študentka:

- pozna anatomijo in fiziologijo kardiorespiratornega sistema,
- prepozna najpogostejša obolenja srčno žilnega in respiratornega sistema,
- pozna vlogo kardiovaskularne in respiratorne fizioterapije v procesu zdravljenja bolnika s srčno-žilnim ali pljučnim obolenjem,
- razvije sposobnost kritične ocene v primerih uporabe ustreznih postopkov kardiovaskularne in respiratorne fizioterapije pri življenjsko ogroženem bolniku v enoti intenzivne terapije,
- se usposobi za predvidevanje, izbor, načrtovanje in izvajanje postopkov ter uporabo pripomočkov kardiovaskularne in respiratorne fizioterapije,
- se usposobi za evalvacijo in dokumentiranje izvedenih postopkov v terapiji kardiorespiratornega bolnika,
- razvije sposobnost delovanja v multidisciplinarnem zdravstvenem timu.

Intended learning outcomes:

Students:

- know the anatomy and physiology of the cardiorespiratory system,
- recognize the most common diseases of the cardiovascular and respiratory system,
- know the role of cardiovascular and pulmonary physiotherapy in the process of treating the patient with cardiovascular or lung disease,
- develop the ability to critically evaluate the use of appropriate procedures of cardiovascular and pulmonary physiotherapy in dealing with a lifethreatened patient in the intensive care unit,
- are qualified for anticipation, selection, planning and implementation of procedures, and the use of cardiovascular and pulmonary physiotherapy equipment,
- it is trained to evaluate and document the performed procedures in the therapy of a cardiorespiratory patient,
- develops the ability to work in a multidisciplinary healthcare team.

Metode poučevanja in učenja:

- predavanja z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov),
- kabinetne vaje: demonstracija, metoda praktičnih del, delo v parih, študije primera, razgovor, diskusija, simulacija.

Learning and teaching methods:

- lectures with active student participation (explanation, discussion, questions, examples, problem solving),
- cabinet tutorial: demonstration, method of practical work, work in pairs, case studies, conversation, discussion, simulation.

Načini ocenjevanja:	Delež (v %) Weight (in %)	Assessment:
Načini: <ul style="list-style-type: none"> • izpit • kolokvij (kabinetne vaje) Ocenjevalna lestvica: ECTS.	60 % 40 %	Types: <ul style="list-style-type: none"> • exam • preliminary exam (cabinet work) Grading scheme: ECTS.