

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet: Poškodbe gibal in vadba
Course title: Injuries of locomotor system and exercise

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Kineziologija, magistrski Kinesiology, masters' study	Kinesiotherapy	1	2

Vrsta predmeta / Course type

Obvezni / obligatory

Univerzitetna koda predmeta / University course code:

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. delo Individ. work	ECTS
90	15	30		45ur -praktično delo - hospitacije, razgovori s trenerji in drugimi strokovnjaki - tutorska oblika učenja	90	9

Nosilec predmeta / Lecturer:

Izr. Prof.dr.Edvin Dervišević

Jeziki /

Languages:

Predavanja /

Lectures:

Slovenski /Slovene

Vaje / Tutorial:

Slovenski /Slovene

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

ni

Prerequisites:

non

Vsebina:

Content (Syllabus outline):

MODUL 1. MERITVE V REHABILITACIJI

- Ocenjevanje bolečine (VAS)
- Uporaba različnih vprašalnikov za oceno uspešnosti zdravljenja (clinical outcome scores) in kakovosti življenja (VISA, KOOS, KOOS-PS, HOOS-(PS), FAOS, RAOS, IKDC, SF-36™, RAND-36™)
- Goniometrija in ocenjevanje gibljivosti
- Izokinetične meritve
- EMG
- Ocena ravnotežja (klinični testi, uporaba orodij za oceno ravnotežja)
- Ocena aktivnega in pasivnega občutka zaznavanja giba
- Ocena hoje in telesne drža
- Funkcionalni testi (one leg hop test, T-test,...)

MODUL 2. ŠPORTNE POŠKODBE

Uvod

- Epidemiologija športnih poškodb
- Dejavniki tveganja za športne poškodbe
- Biomehanika športnih poškodb
- Mehanizem poškodovanja – temelj razumevanja športnih poškodb

Splošni del

- Poškodbe kosti
- Poškodbe kit in vezi
- Poškodbe mišic

Specialni del (posamezni mehanizmi, informativni prikaz zdravljenja, posledice poškodbe, omejitve pri vadbi)

- Poškodbe glave v športu
- Poškodbe hrbtenice v športu
- Akutne in kronične poškodbe ramenskega sklepa
- Akutne in kronične poškodbe komolčnega sklepa
- Akutne in kronične poškodbe zapestja in roke
- Akutne in kronične poškodbe kolčnega sklepa
- Akutne in kronične poškodbe kolenskega sklepa
- Akutne in kronične poškodbe gležnja

Module 1 MEASUREMENT IN REHABILITATION

- Assessment of pain (VAS)
- The use of different questionnaires to assess the effectiveness of treatment (Clinical Outcome scores) and quality of life (VISA, Koos, Koos-PS-Hoos (PS), FAOS, Raos, IKDC, SF-36™, RAND-36™)
- Goniometry and assessment of mobility
- Isokinetic measurements
- EMG
- Assessment of balance (clinical tests, use of tools for assessment of the balance)
- Assessment of active and passive sense perception of movement
- Assessment of walking and posture
- Functional tests (one leg hop test, T-test, ...)

Module 2 Sports Injuries

Introduction

- Epidemiology of sports injuries
- Risk factors for sports injuries
- Biomechanics of sports injuries
- The mechanism of damage - the foundation of understanding of sports injuries

The general part

- Damage to the bone
- Damage to tendons and ligaments
- Muscle Injuries

Special part (individual mechanisms, see the information treatment, the consequences of injury, limitations on exercise)

- Head injuries in sport
- Spinal injuries in sports
- Acute and chronic shoulder injury
- Acute and chronic injury to elbow joint
- Acute and chronic injury to the wrist and hand
- Acute and chronic hip injury
- Acute and chronic injuries of the knee joint
- Acute and chronic ankle injury
- Acute and chronic foot injury

Module 3 Therapeutic exercise

- Demonstration of basic pharmacological and non-pharmacological methods
- Functional rehabilitation and return to field -

- Akutne in kronične poškodbe stopala

MODUL 3. Terapevtska vadba

- Prikaz osnovnih farmakoloških in nefarmakoloških metod
- Funkcionalna rehabilitacija in vrnitev trenajni proces – kriteriji
- Uporaba ortotskih pripomočkov v poznih fazah rehabilitacije
- Rehabilitacijski protokoli (plantarni fasciitis, ahilarna tendinopatija, zvin gležnja, kronična nestabilnost gležnja, sprednja križna vez, zadnja križna vez, poškodbe meniskusov, patelarna tendinopatija, kronične bolečine v dimljah, poškodbe ramenskega obroča, kronične nespecifične bolečine v križu)

criteria

- Use of orthotic devices in the late stages of rehabilitation
- Rehabilitation protocols (plantar fasciitis, Achillar tendinopathy, ankle sprain, chronic ankle instability, anterior cruciate ligament, posterior cruciate ligament, meniscal injuries, patellar tendinopathy, chronic pain in the groin, shoulder girdle injuries, chronic nonspecific low back pain)

Temeljni literatura in viri / Readings:

- Peggy A. Houglum. Therapeutic Exercise for Musculoskeletal Injuries, 3rd Edition, HumanKinetics, 2009
- Ustrezni znanstveni članki iz znanstvenih revij (po dogovoru z nosilcem oz. posameznimi izvajalci)

Cilji in kompetence:

- Študenti poznajo osnovne merilne postopke v rehabilitaciji (goniometrija, EMG, izokinetične meritve, analiza hoje, analiza drže, ocena posturalne stabilnosti, ocena pasivnih in aktivnih kinestetičnih čutov, ocena agilnosti...)
- Študenti poznajo dejavnike tveganja, mehanizem poškodovanja, osnovna načela zdravljenja (operativno, konzervativno), posledice in omejitve pri pogostejših športnih poškodbah gibal.
- Študenti poznajo osnovna načela terapevtske vadbe in njenih posameznih komponent (giblivos, moč, neuro-mišični trening v rehabilitaciji).
- Študenti poznajo rehabilitacijske protokole za posamezne športne poškodbe.
- Študenti so sposobni načrtovati terapevtski

Objectives and competences:

- Students know the basic measurement procedures in rehabilitation (goniometry, EMG, isokinetic measurements, analysis of walking, posture analysis, assessment of postural stability, from passive to active and kinaesthetic senses, from agility ...)
- Students know the risk factors, injury mechanism, the basic principles of treatment (operative, conservative), and the consequences of restrictions on frequent sports injuries to the limbs.
- Students know the basic principles of therapeutic exercise and its individual components (flexibility, strength, neuro-muscular training in rehabilitation).
- Students are familiar with rehabilitation protocols for specific injuries.
- Students are able to design therapeutic

vadbeni program, ki bo izhajal iz poznavanja poškodbe in njenih posledic, poznavanja nespornih omejitev pri vadbi po specifičnih poškodbah gibal ter poznavanja dejavnikov tveganja za obnovitev iste poškodbe v cilju izvajanja sekundarne preventive.

exercise program, which will draw on knowledge of injury and its consequences, knowing unchallenged restriction in practice for specific injuries to the limbs, and knowledge of risk factors for the recovery of the same injury with the goal of implementation of secondary prevention.

Predvideni študijski rezultati:

Znanje in razumevanje:

- Okvirno poznavanje epidemiologije, etiologije ter klinične slike različnih poškodb gibal
- Poglobljeno poznavanje omejitev pri vadbi različnih poškodbah gibal
- Poglobljeno poznavanje potencialno učinkovitih vadbenih programov

Intended learning outcomes:

Knowledge and understanding:

- Basic knowledge of the epidemiology, etiology and clinical picture of various locomotor injuries
- In-depth knowledge of the limits in practice the various locomotor injuries
- Thorough knowledge of potentially effective training programs

Metode poučevanja in učenja:

Predavanja in seminarske naloge, obiski ustreznih zdravstvenih ustanov v RS

Learning and teaching methods:

Delež (v %) /

Načini ocenjevanja:

Weight (in %)

Assessment:

pisni izpit (50%), ustni izpit (50%), seminarske naloge (opravil)

Oral exam (50%), written exam (50%) seminars

Reference nosilca / Lecturer's references:

DERVIŠEVIĆ, Edvin, BILBAN, Marjan, VALENČIČ, Vojko. The influence of low frequency electrostimulation and isokinetic training on the maximal strength of m. quadriceps femoris. *Isokinet. exerc. sci.*, 2002, vol. 10, no. 4, str. 203-209, graf. prikazi. [COBISS.SI-ID [1802161](#)]

DERVIŠEVIĆ, Edvin, HADŽIĆ, Vedran. Športne poškodbe v Sloveniji. *Šport (Ljublj.)*, 2005, letn. 53,

št. 2, str. 2-9, priloga, tabele, graf. prikazi. [COBISS.SI-ID [2443441](#)]

HADŽIĆ, Vedran, SATTler, Tine, MARKOVIĆ, Goran, VESELKO, Matjaž, DERVIŠEVIĆ, Edvin. The isokinetic strength profile of quadriceps and hamstrings in elite volleyball players. *Isokinet. exerc. sci.*, 2010, vol. 18, no. 1, str. 31-37, tabele. [COBISS.SI-ID [3791537](#)]

DERVIŠEVIĆ, Edvin, HADŽIĆ, Vedran. Influence of sex on the sports injuries rate among slovenian top athletes. *Br. j. sports med.*, June 2005, vol. 39, no. 6, 1 str. <http://www.bjsportmed.com>. [COBISS.SI-ID [2399153](#)]

KONDRIČ, Miran, MATKOVIĆ, Branka R., FURJAN-MANDIĆ, Gordana, HADŽIĆ, Vedran, DERVIŠEVIĆ, Edvin. Injuries in racket sports among Slovenian players = Ozljede kod slovenskih igrača u sportovima s reketom. *Coll. antropol.*, 2011, vol. 35, no. 2, str. 413-417, tabele, graf. prikaz. [COBISS.SI-ID [4077745](#)]

HADŽIĆ, Vedran, SATTler, Tine, TOPOLE, Eva, JARNOVIČ, Zoran, BURGER, Helena, DERVIŠEVIĆ, Edvin. Risk factors for ankle sprain in volleyball players: a preliminary analysis. *Isokinet. exerc. sci.*, 2009, vol. 17, no. 3, 155-160, tabeli. [COBISS.SI-ID [3666097](#)]

DERVIŠEVIĆ, Edvin, HADŽIĆ, Vedran, KARPLJUK, Damir, JARNOVIČ, Zoran, BORKO, Marko. Ahilarna tendinopatija. *Šport (Ljublj.)*, 2005, letn. 53, št. 2, str. 25-28, priloga, ilustr. [COBISS.SI-ID [2444721](#)]

DERVIŠEVIĆ, Edvin. Prevencija u sportu. V: SMAJLOVIĆ, Nusret (ur.). *Zbornik naučnih i stručnih radova-dodatak*. Sarajevo: Univerzitet, Fakultet sporta i tjelesnog odgoja, 2007, str. 71-75. [COBISS.SI-ID [3040945](#)]

DERVIŠEVIĆ, Edvin. Preprečevanje in rehabilitacija poškodb mišic zadnje lože stegna pri športnikih. V: DERVIŠEVIĆ, Edvin (ur.), HADŽIĆ, Vedran (ur.), VIDMAR, Jože (ur.), ČOH, Milan (ur.), VESELKO, Matjaž (ur.). Simpozij z mednarodno udeležbo Prevencija in rehabilitacija športnih poškodb ____ [2005]. *Zbornik predavanj*. Ljubljana: Fakulteta za šport, [2005?], str. 41-43. [COBISS.SI-ID [2615217](#)]

DERVIŠEVIĆ, Edvin, HADŽIĆ, Vedran. The influence of acupuncture and low-frequency electrostimulation on pain, mobility and muscle strength in the painful shoulder syndrome. V: XXVII FIMS World Congress of Sports Medicine, 5-9 June, 2002 - Budapest, Hungary. *Abstracts*. Budapest, Hungary: s.n., 2002, str. 48. [COBISS.SI-ID [2142641](#)]

HADŽIĆ, Vedran, SATTler, Tine, PUSTIVŠEK, Suzana, DERVIŠEVIĆ, Edvin. Strength profile of external and internal shoulder rotators in elite volleyball players. V: *Prevention, performance, return to play, return to function : book of abstracts*. Düsseldorf: German medical science, 2011, str. 130-131. <http://www.egms.de/en/meetings/esm2011/11esm102.shtml>, doi: [10.3205/11esm102](https://doi.org/10.3205/11esm102). [COBISS.SI-ID [4117937](#)]