

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet: Biomedicinske osnove telesne vadbe
Course title: Biomedical basis of physical activity

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Kineziologija, 2. stopnja / Kineisology, masters' study	vse smeri/ all study fields	1	1

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
60	30			30	60	6

Nosilec predmeta / Lecturer:

Izr. prof. dr. Edvin DERVIŠEVIĆ

**Jeziki /
Languages:**

**Predavanja /
Lectures:** slovenščina /Slovene
Vaje / Tutorial: slovenščina / Slovene

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

Ni

Prerequisites:

No specific demands

Vsebina:

Content (Syllabus outline):

MODUL 1. JAVNO ZDRAVJE

Ravni zdravstvene preventive in preventivna zdravstvena dejavnost v Sloveniji

Poznavanje mednarodnih medicinskih organizacij in združenj (WHO, CDC, ACSM...)

Zdravje in bolezni – opredelitev osnovnih pojmov (pozitivni in negativni dejavniki zdravja)

Akutno in kronično vnetje ter celjenje – patologija in patološka fiziologija, razumevanje kardinalnih znakov vnetja in razlik med akutnim in kroničnim vnetjem kot temelj razumevanja bolezni

Epidemiologija bolezni in poškodb v Sloveniji

MODUL 2. POZITIVNI UČINKI VADBE NA KAZALCE ZDRAVJE

Pomen redne telesne aktivnosti za ohranjanje zdravja – pozitivni učinki vadbe na kazalce zdravja

Kvantiteta in kvaliteta telesne aktivnosti za zdravje

Ocenjevanje sposobnosti posameznika za ukvarjanje s telesno aktivnostjo (presejalni testi in ocena tveganja, protokoli testiranja, teoretično ozadje testov)

Predstavitev bolezni in poškodb pri katerih ima vadba dokazane pozitivne učinke (kardiovaskularne bolezni, bolečine v križu in osteoartritis, debelost in sladkorna bolezen...)

MODUL 3. ETIČNI VIDIKI

Etični in deontološki vidiki vadbe z bolnimi in/ali poškodovanimi (poklicna molčečnost, varovanje osebnih podatkov)

MODUL 1. Public health and physical activity

- Health care levels and health prevention in Slovenia

- International public health organizations (WHO, CDC, ACSM...)

- Health and disease – basic definitions (factors affecting health)

- Acute and chronic inflammation and healing process – pathology and pathological physiology, basic differentiation among acute and chronic inflammation as a basis for understanding of the disease

- Epidemiology of injuries and chronic disease in Slovenia

MODUL 2. POSITIVE EFFECTS OF PHYSICAL ACTIVITY ON HEALTH

- The importance of regular physical activity (PA) for health – the improvement of the health parameters through regular PA

- Quantity and quality of PA for health

- Pre-exercise testing and evaluation (screening tests and risk evaluation, testing protocols, theoretical background of the tests)

- The overview of the major medical conditions in which PA has evidence based positive effects (cardiovascular diseases, low back pain and osteoarthritis, obesity and diabetes mellitus...)

MODUL 3. Ethical issues in PA for health

Ethical and deontological issues in the PA of chronically ill and/or injured individuals (obligation of professional secrecy, privacy policy...)

Temeljni literatura in viri / Readings:

Walter R. Frontera, David M. Slovik, David M. Dawson. Exercise in Rehabilitation Medicine, 2nd Edition, Human Kinetics, 2006

ACSM: Resource manual for guidelines for exercise testing and prescription, 5th edition, Lippincott Williams & Wilkins, 2006

David P. Swain, Brian C. Leutholtz. Exercise Prescription-2nd Edition - A Case Study Approach to the ACSM Guidelines. Human Kinetics, 2007

Gormley J, Hussey J. Exercise therapy prevention and treatment of disease, Blackwell publishing, 2005

Peer reviewed scientific articles (according to the recommendations of specific teacher)

Cilji in kompetence:

- Študenti poznajo osnovne značilnosti organiziranosti in doktrine v zdravstveni dejavnosti v Sloveniji.
- Študenti poznajo aktualno zdravstveno problematiko v Sloveniji.
- Študenti razumejo pojma zdravje in bolezni.
- Študenti razumejo koncept vnetja kot skupnega imenovalca bolezni.
- Študenti osvojijo elementarna medicinska znanja, ki so potrebna za poglobljeno ukvarjanje s poškodovanimi in kronično bolnimi osebami.
- Študenti poznajo pozitivne učinke vadbe na zdravje (umestitev vadbe v koncept javnega zdravja).

Študenti poznajo medicinsko-pravne in etične vidiki vadbe s poškodovanimi in/ali bolnimi osebami.

Objectives and competences:

- Students should be familiar with basic characteristics and doctrine of the health care system in Slovenia
- Students should understand up to date public health issues in Slovenia
- Clear and thorough differentiation between health and disease
- The full understanding of the inflammation as a common denominator of the disease
- The understanding of the elementary medical terms needed for competent work with ill or injured persons
- Thorough understanding of the positive effects of regular PA on health (PA as a part of public health)
- Understanding of medico-legal and ethical issues in PA for health

Predvideni študijski rezultati:

Znanje in razumevanje:

- Poznavanje specifičnosti dela v zdravstvenem okolju in razumevanje ureditve javno zdravstvenega sistema v RS.
- Okvirno poznavanje vnetnega procesa in razumevanje povezave med različnimi fazami vnetja in možnostmi telesne aktivnosti.
- Poznavanje različnih dejavnikov bolezni in epidemiologije bolezni in poškodb v RS.
- Jasna in temeljita opredelitev pomena telesne aktivnosti (TA) za zdravje.
- Jasna in temeljita opredelitev pomena TA pri primarnem preprečevanju bolezni in poškodb.
- Jasna in temeljita opredelitev pomena TA v rehabilitaciji in sekundarni ter terciarni preventivi bolezni in poškodb.

Uporaba:

- Pri strokovnem in raziskovalnem delu na

Intended learning outcomes:

Knowledge and understanding:

- Specificity of the work in the health care environment and organization of the health care system in Slovenia
- The relationship between different inflammatory stages and PA limitations
- Slovenia specific disease and injury risk factors
- Clear and thorough explanation of the importance of regular PA for health
- The role of regular PA in the primary prevention of the disease
- The role of regular PA in the rehabilitation process and secondary and tertiary prevention of the disease

The use of knowledge in the professional and research area in the field of kinesiology and kinesiotherapy.

Reflexion. The students will get competencies for professional and research work in the area

<p>področjih kineziologije in kinezioterapije.</p> <p>Refleksija:</p> <ul style="list-style-type: none"> • Študenti bodo usposobljeni za strokovno in raziskovalno delo in bodo sposobni kritične presoje, hkrati pa aktivnega vključevanja v strokovno delo v kontekstu vadbe za zdravje. <p>Prenosljive spretnosti – niso vezane le na en predmet:</p> <ul style="list-style-type: none"> • Študenti spoznavajo medicinska izhodišča za vadbo za zdravje in temeljne etične vidike v povezavi z njo, ki so osnova za nadgrajevanje znanj pri ostalih predmetih. • Znajo poiskati ter uporabiti relevantno literaturo in vire podatkov, seznanjeni so s pomembnejšimi načini lastnega zbiranja podatkov. • Razvijajo zmožnosti učinkovitega pisnega in ustnega komuniciranja ter uporabe informacijsko-komunikacijske tehnologije in informacijskih sistemov. • Poznajo nekatere pomembnejše načine analize podatkov ter znajo predstaviti dobljene rezultate. 	<p>of PA for health.</p> <p>Transferable knowledge</p> <ul style="list-style-type: none"> • Students learn about medical practice guidelines for PA for health and the fundamental ethical aspects associated with it that are the basis for the upgrading of skills in other subjects. • They know how to find and use relevant literature and data sources, time informed about the major modes of its own scientific data search • Ability to develop effective written and oral communication skills and use of information and communication technologies and information systems. • Familiar with some of the methods of data analysis and are able to present the results obtained.
--	--

Metode poučevanja in učenja:

Predavanja in seminarske naloge, obiski ustreznih zdravstvenih ustanov v RS

Learning and teaching methods:

Lectures and seminars,

Delež (v %) /

Načini ocenjevanja:

Weight (in %) **Assessment:**

pisni izpit, ustno izpraševanje, naloge		Type (examination, oral, coursework, project):
---	--	--

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. Prevenција 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 Prevenција 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](#)]