2024/2025

Univerza v Mariboru

Medicinska fakulteta

UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Ime predmeta:	Izbrane vsebine in novosti v medicinski informatiki
Course title:	Selected topics and novelties in medical informatics

Študijski program in stopnja **Study programme and cycle**	**Študijska smer** **Study option**	**Letnik** **Year of study**	**Semester** **Semester**
Splošna medicina, enovit magistrski študijski program		**Drugi**	**4.**
General medicine, Uniform master's degree study program		**Second**	**4th**

Vrsta predmeta (obvezni ali izbirni) / **Course type (compulsory or elective)**	izbirni elective
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**
		AV	**LV**	**RV**				
5	40						45	3

Nosilec predmeta / Course coordinator:	red. prof. dr. Dejan Dinevski

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

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisites for enrolling in the course or for performing study obligations:**

Vsebina (kratek pregled učnega načrta):	**Content (syllabus outline):**
Medicinska informatika, izbrana poglavja: - Informacijski sistemi v medicini, - Uporaba slik in grafike v medicini, - Odločitveni sistemi v medicini, - Inteligentni sistemi v medicini. Bioinformatika, izbrana poglavja: - Razmerje z medicinsko informatiko - Informacijske tehnologije in metode za reševanje problemov v biologiji in medicini - Informacijske aplikacije v bioinformatiki	Medical informatics, selected chapters: - Information systems in medicine - Pictures and graphics in medicine - Decision support systems in medicine - Intelligent systems in medicine Bioinformatics, selected chapters: - Relation to medical informatics - computer-based techniques for solving biological and medical problems - Information technology applications in bioinformatics

Telemedicina, izbrana poglavja:

- telezdravstvo, telenega, telenadzor, telekonzultacije
- Praktični primeri (teledermatologija, telekirurgija, telepatologija, telekardiologija…)

Telemedicine, selected chapters:

- Telehealth, telecare, telecontrol, teleconsultations
- Practical applications (teledermatology, telesurgery, telepatology, telecardiology)

Temeljni literatura in viri / Reading materials:

Temeljna literatura:

- Edward H. Shortliffe, James J. Cimino: Biomedical Informatics**,** Springer USA, 2006
- Georgi Graschew and Stefan Rakowsky, Telemedicine Techniques and Applications, InTech Open Publishing 2011; chapter: Dejan Dinevski et al., Clinical Decision Support Systems

Dodatna literatura:

- TelemedicineRevija Informatica Medica Slovenica, izbor strokovnih člankov na temo medicinske informatike in telemedicine. Izdaja Slovensko društvo za medicinsko informatiko.HOLZINGER Andreas. Biomedical informatics : lecture notes to LV 444.152. - 1st ed. - Norderstedt : Books on Demand, cop. 2012

Cilji in kompetence:

Študent se bo na podlagi osnovnih znanj poglobil v nekatera od naštetih poglavij medicinske informatike z namenom globljega razumevanja in obvladovanja le-teh.

Objectives and competences:

The student will deepen the knowledge of the selections of listed medical informatics chapters in order to better understand and be able to utilize the acquired knowledge.

Predvideni študijski rezultati:

Znanje in razumevanje:
Po zaključku tega predmeta bo študent:

- Razumel in poznal področja medicinske informatike, bioinformatike in telemedicine.
- Znal uporabljati določene aplikacije iz naštetih področij.

Prenosljive/ključne spretnosti in drugi atributi:

- Samostojno delo z računalnikom
- Uporaba računalniških programov in informacijske tehnologije
- Spodobnost iskanja podatkov

Intended learning outcomes:

Knowledge and understanding:
On the completition of this course the student will:

- Understand and be acquainted with the basics of medical informatics, bioinformatics and telemedicine.
- Be able to use the applications from the listed chapters.

Transferable/Key Skills and other attributes:

- Autonomous work with the computer
- Use of computer applications and information technology
- Ability to search for the information

Metode poučevanja in učenja:

- Seminar
- E-izobraževanje
- predavanje

Learning and teaching methods:

- seminar,
- e-learning
- lectures

Načini ocenjevanja:	Delež (v %) / Share (in %)	Assessment methods:
Način (ustno izpraševanje, projekt) • Seminar • Kolokvij ŠTUDIJSKE OBVEZNOSTI ŠTUDENTOV: Izdelava seminarske naloge v obliki strokovnega članka in njena predstavitev pred kolegi. POGOJI ZA PRISTOP K POSAMEZNEMU PREVERJANJU ZNANJA: Opravljen seminar.	**50 %** **50 %**	Type (oral examination, project): • Seminar • Partial exam ACADEMIC OBLIGATIONS OF STUDENTS: Formation of a coursework assignment in the form of a technical article and its presentation in front of colleagues. REQUIREMENTS FOR ACCESS TO INDIVIDUAL KNOWLEDGE CHECKING: completed coursework.

Reference nosilca / Course coordinator's references:

BIZJAK, Mojca, KOŠNIK, Mitja, TERHORST, Dorothea, DINEVSKI, Dejan, MAURER, Marcus. Cold agglutinins and cryoglobulins associate with clinical and laboratory parameters of cold urticaria. *Frontiers in immunology*. 29 Apr. 2021, [vol.] 12, str. 1-9, ilustr. ISSN 1664-3224.

BIZJAK, Mojca (avtor, korespondenčni avtor), ADAMIČ, Katja, BAJROVIĆ, Nisera, ERŽEN, Renato, JOŠT, Maja, KOPAČ, Peter, KOŠNIK, Mitja, LALEK, Nika, ZIDARN, Mihaela, DINEVSKI, Dejan. Patch testing with the European baseline series and 10 added allergens : single centre study of 748 patients. *Contact dermatitis*. [Online ed.]. 2022, vol. 87, str. [1-21], tabeli. ISSN 1600-0536.

ŽEBELJAN, Ivan, LUČOVNIK, Miha, DINEVSKI, Dejan, LACKNER, Helmut Karl, MÖRTL, Manfred Georg, VESENJAK DINEVSKI, Izidora, MUJEZINOVIĆ, Faris. Effect of prenatal yoga on heart rate variability and cardio-respiratory synchronization: a prospective cohort study. *Journal of clinical medicine*. 2022, vol. 11, issue 19, str. [1]-10, ilustr. ISSN 2077-0383.