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):

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

Telemedicina, izbrana poglavja:

Content (syllabus outline):

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

Telemedicine, selected chapters:

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

- Joan M. Kiel (ur.): Information Technology for the Practicing Physician (Computers in Health Care), New York, 2000.
- Jeffrey C. Bauer, Marc A. Ringel: Telemedicine and the Reinvention of Healthcare, McGraw Hill, 1999.
- 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 complettition 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:

VINKO, Matej, BRECELJ, Špela, ERŽEN, Ivan, DINEVSKI, Dejan. Sprejemanje in uporaba informacijskih tehnologij v slovenskem javnem zdravstvu : nacionalna raziskava z uporabo modela UTAUT = Acceptance and use of health information technology in Slovenian public health institutions : a national survey based on UTAUT model. Zdravniški vestnik, ISSN 1318-0347. [Tiskana izd.], apr. 2013, letn. 82, št. 4, str. 234-242. [COBISS.SI-ID 2888677], [JCR]

HUSSEIN, Mohsen, VAN ECK, Carola F., ČRETNIK, Andrej, DINEVSKI, Dejan, FU, Freddie H. Prospective randomized clinical evaluation of conventional single-bundle, anatomic single-bundle, and anatomic double-bundle anterior cruciate ligament reconstruction : 281 cases with 3- to 5-year follow-up. The American journal of sports medicine, ISSN 0363-5465, 2012, vol. 40, no. 3, str. 512-520. http://ajs.sagepub.com/content/40/3/512.full.pdf+html, doi: 10.1177/0363546511426416. [COBISS.SI-ID 4192831], [JCR, SNIP, WoS do 11. 12. 2013: št. citatov (TC): 20, čistih citatov (CI): 20, normirano št. čistih citatov (NC): 13, Scopus do 8. 1. 2014: št. citatov (TC): 25, čistih citatov (CI): 25, normirano št. čistih citatov (NC): 16]

HUSSEIN, Mohsen, VAN ECK, Carola F., ČRETNIK, Andrej, DINEVSKI, Dejan, FU, Freddie H. Individualized anterior cruciate ligament surgery : a prospective study comparing anatomic single- and double-bundle reconstruction. The American journal of sports medicine, ISSN 0363-5465, 2012, vol. 40, no. 8, str. 1781-1788. http://ajs.sagepub.com/content/40/8/1781.full.pdf+html, doi: 10.1177/0363546512446928. [COBISS.SI-ID 4384063], [JCR, SNIP, WoS do 11. 12. 2013: št. citatov (TC): 7, čistih citatov (CI): 7, normirano št. čistih citatov (NC): 5, Scopus do 8. 1. 2014: št. citatov (TC): 14, čistih citatov (CI): 14, normirano št. čistih citatov (NC): 9]

DINEVSKI, Dejan, POVALEJ, Petra, KRAVOS, Matej. Intelligent data analysis for the diagnosis of alcohol dependence syndrome. Journal of international medical research, ISSN 0300-0605, 2011, vol. 39, no. 3, str. 988-1000. [COBISS.SI-ID 512129848], [JCR, SNIP, WoS do 5. 9. 2011: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0, Scopus do 28. 9. 2011: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0]

DINEVSKI, Dejan, MERTIK, Matej, KOKOL, Peter. Diagnosing mitral valve prolapse by improving the predictive power of classifiers. Journal of international medical research, ISSN 0300-0605, 2011, vol. 39, no. 3, str. 1075-1083. [COBISS.SI-ID 512130104], [JCR, SNIP, WoS do 17. 1. 2013: št. citatov (TC): 1, čistih citatov (CI): 1, normirano št. čistih citatov (NC): 0, Scopus do 28. 9. 2011: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0]