

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	Telemedicina
Course title:	Telemedicine

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Biomedicinska tehnologija/Biomedical Technology 3. stopnja/3rd Degree		2	3 ali 4

Vrsta predmeta / Course type

Izbirni/Elective

Univerzitetna koda predmeta / University course code:

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. Delo Individ. Work	ECTS
15	20	10			105	5

Nosilec predmeta / Lecturer:

prof. dr. Dejan Dinevski

Jeziki /

Predavanja / Lectures: slovenski / slovene

Languages:

Vaje / Tutorial: slovenski / slovene

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

Prerequisites:

Kandidat mora doseči 300 ECTS na predhodnem študiju.

Graduate degree 300 ECTS

Vsebina:

- Osnove in principi telemedicine
- Zgodovina telemedicine ter njene prednosti
- Tehnološki temelji telemedicine in standardi za prenos medicinskih podatkov
- Medicinski senzorji za prenos informacij o stanju pacienta
- Praktične aplikacije telemedicine v zdravstvenem sistemu:
 1. telezdravstvo,
 2. nega bolnika na daljavo,
 3. nadzor bolnika na daljavo,
 4. telekonzultacije
- Videokonferenca v telemedicini – pridobivanje drugega mnenja na daljavo
- Praktični primeri na posameznih medicinskih področjih: teledermatologija, telekirurgija, telepatologija, telekardiologija...
- Informacijski sistemi v medicini,
- Uporaba slik in grafike v medicini (DICOM),
- Odločitveni sistemi v medicini,
- Inteligentni sistemi v medicini,
- Moderna telemedicinska praksa

Content (Syllabus outline):

- Basic principles of telemedicine
- History of telemedicine and its benefits
- Technological background of telemedicine and standards for data transfer in medicine
- Medical sensors for the transmission of information about the state of the patient
- Practical applications of telemedicine in the health systems:
 1. Telehealth
 2. Telecare
 3. Telemonitoring
 4. Teleconsultations
- Videoconference in telemedicine – second opinion on distance
- Practical examples on different medical fields: teledermatology, telesurgery, telepathology, telecardiology,...
- Information systems in medicine
- Use of pictures and graphics in medicine (DICOM standard)
- Decision systems in medicine
- Intelligent systems in medicine
- Modern telemedicine practise

Temeljni literatura in viri / Readings:

Obvezna literatura:

- Edward H. Shortliffe, James J. Cimino: Biomedical Informatics, Springer USA, 2006

- R.L. Bashur, G.W. Shannon, History of Telemedicine, Mary Ann Liebert, Inc. publishers, 2009

Dopolnilna 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.
- A. Hasman: Handbook of Medical Informatics, Springer, 1998.

Cilji in kompetence:

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

Predvideni študijski rezultati:

Znanje in razumevanje:

Po zaključku tega predmeta bo študent:

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

Prenesljive/ključne spretnosti in drugi atributi:

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

Metode poučevanja in učenja:

- Predavanja
- Seminar
- Vaje, e-izobraževanje

Objectives and competences:

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

Intended learning outcomes:

Knowledge and understanding:

On the completion of this course the student will:

- Understand and be acquainted with the basics of telemedicine and medical informatics.
- 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

Learning and teaching methods:

- Lectures,
- Seminar
- Exercises, e-learning

Načini ocenjevanja:

- Seminar
- Ustni zagovor

Delež (v %) /

Weight (in %)

Assessment:

	50	– Seminar
	50	– Oral test