Course title: Information Systems in Medicine
Course code: 60040
ECTS credits: 6
Requirements: None
Basic information
Level of studies: Undergraduate applied studies
Year of study: 3
Trimester: 7
Goal: Primary goal is to teach students the foundation of information systems in medicine, their specific features, technical requirements and existing standards.
Outcome: The student should be able to independently manage and maintain information systems in medicine, ensure efficient medical data management and provide technical support to medical staff in health care institutions.
Contents of the course
Theoretical instruction
1. Medical Information Systems: Introduction
2. Medical Information Systems: Technical requiremets, software implementation and development
3. Medical Information Systems: Data storage, data mining and processing, data security
4. Medical Information Systems: Networking
5. Medical Information Systems: PACS systems
6. Medical Information Systems: Medical image processing, Decision support systems
7. Medical Information Systems: HL7 Standard, Dicom standard
Practical instruction (Problem solving sessions/Lab work/Practical training)
1. Medical data processing
2. Medical data quality assessment, correction and storage
3. Medical database planning and implementation
4. Medical data searching and retrieving
5. Medical information systems user interfaces

6. Dicom applications
7. Heliant Health medical information system in Republic of Serbia
Textbooks and References
1. I. Reljin, A. Gavrovska, Telemedicina, Prvo izdanje, Akademska misao, Beograd 2013. (elektronsko izdanje) ISBN 978-86-7466-457-5, UDK: 616-07:621.39(075.8), COBISS.SR-ID 198019596
2. Jerry L. Prince,Jonathan M. Links: Medical Imaging Signals and Systems (2nd Edition).Upper Saddle River, NJ: Pearson Prentice Hall, 2016.
3. Carlo Combi, Elpida Keravnou-Papailiou, Yuval Shahar: Temporal Information Systems in Medicine. Springer. 2010.
4. https://heliant.rs/resenja/health/
Number of active classes (weekly)
Lectures: 4
Practical classes: 2
Other types of classes: 0
Grading (maximum number of points: 100)
Pre-exam obligations: Points
Activities during lectures:
Activities on practical exercises:
Seminary work:
Colloquium: 50
Final exam: Points
Written exam: 50
Oral exam:
Lecturer
Danica Mamula-Tartalja, PhD
Associate