

## Specification for the book of courses

<b>Study program</b>		Computing and Informatics		
<b>Module</b>		Information Systems and Technologies		
<b>Type and level of studies</b>		Master studies		
<b>The name of the course</b>		Medical Information Systems		
<b>Lecturer (for lectures)</b>		Janković S. Dragan		
<b>Lecturer/associate (for exercises)</b>		Rajković J. Petar		
<b>Lecturer/associate (for OFE)</b>				
<b>Number of ECTS</b>	4	<b>Course status (obligatory/elective)</b>	Elective	
<b>Prerequisites</b>				
<b>Course objectives</b>	The course objectives are introducing students in specificities of medical information system development, deployment and project management. The students will get the knowledge about different types of medical software as well as related standards and legislature.			
<b>Course outcomes</b>	After the course completion, the students will be able to participate in medical information system development process using theoretical and practical knowledge obtained through lectures and software project development.			
<b>Course outline</b>				
<b>Theoretical teaching</b>	1. Introduction to medical information systems 2. Data quality 3. Standards and legislature 4. Comparison of existing systems 5. Medical information system design specificities 6. Aspects of system implementation 7. System and data security 8. Overview on implementation technologies 9. System installation and deployment phase 10. System exploitation phase 11. System interoperability 12. Telemedicine 13. Decision support systems 14. Medical information system project management			
<b>Practical teaching (exercises, OFE, study and research work)</b>	1. Defining main elements of the future information system 2. Designing database structure and electronic patient record 3. Medical examination support software components 4. Patient scheduling software module 5. Report generation module 6. Privileges within medical information system 7. Data security 8. Designing the data access Web service 9. Personal health Web portals 10. Composite electronic health records 11. Document management systems 12. Medical information system taxonomy 13. Data exchange standards 14. Data synchronization techniques			
<b>Textbooks/references</b>				
1	Karen A. Wager, Frances W. Lee, John P. Glaser, Health Care Information Systems: A Practical approach for Health Care Management, John Wiley, Jossey-Bass; 2 edition, 2009.			
2	Joseph Tan, Fay Cobb Payton: Adaptive Health Management Information Systems: Concepts, Cases, and Practical Applications, Third Edition, Jones & Bartlett Publishers; 3 edition (May 21, 2009), ISBN-10: 0763756911, ISBN-13: 978-0763756918			
3	Dean F. Sittig, Joan S. Ash: Clinical Information Systems: Overcoming Adverse Consequences (Jones and Bartlett Series in Biomedical Informatics), Jones & Bartlett Publishers; 1 edition (November 23, 2009), ISBN-10: 0763757640, ISBN-13: 978-0763757649			
4	Scott Coplan, David Masuda: Project Management for Healthcare Information Technology, McGraw-Hill Professional; 1 edition (February 1, 2011), ISBN-10: 0071740538, ISBN-13: 978-0071740531			
5	Lectures in a form of Power Point presentations			
<b>Number of classes of active education per week during semester/trimester/year</b>				
<b>Lectures</b>	<b>Exercises</b>	<b>OFE</b>	<b>Study and research work</b>	<b>Other classes</b>
2	1	0		
<b>Teaching methods</b>	Lectures, Auditive exercises, Laboratory exercises. Student project realization.			
<b>Grade (maximum number of points 100)</b>				
<b>Pre-exam duties</b>	<b>Points</b>	<b>Final exam</b>	<b>Points</b>	
<b>Activity during lectures</b>	5	<b>Written exam</b>	30	
<b>Exercises</b>	15	<b>Oral exam</b>	20	
<b>Colloquia</b>				
<b>Projects</b>	30			