

Subject card

Subject name and code	IT Management Support Systems in Healthcare, PG_00155968						
Field of study	Management of Healthcare Institutions						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Subject group related to practical vocational preparation		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		2.0		
Learning profile	practical		Assessment form		credit		
Conducting unit	Department of Investment and Real Estate -> Faculty of Management -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Dariusz Kralewski				
	Teachers		dr Dariusz Kralewski				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	15		5.0		30.0	50
Subject objectives	The lecture is devoted to that part of computer science that is related to its applications in medicine.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[ZISZL3_W03] The student knows and understands to an advanced degree the functions of management and the role of managers in their implementation, as well as ways to achieve the goals of health care units.	student distinguishes between the roles of the computer in health care student characterizes specialized medical databases student learns methods of computer analysis and processing of medical data	[SW4] test/exam - oral or written
	[ZISZL3_K03] The student recognizes the complexity of social problems in the field of health care at the micro- and macro-structural level.	the student deepens his knowledge of medical informatics the student appreciates the role of medical informatics in the functioning of health care the student demonstrates responsibility for the effectiveness of the IT implementation process	[SK4] test/exam - oral or written
	[ZISZL3_K02] The student applies an analytical approach to problem solving, is able to independently search for solutions, as well as use expert opinions.	the student deepens his knowledge of medical informatics the student appreciates the role of medical informatics in the functioning of health care the student demonstrates responsibility for the effectiveness of the IT implementation process	[SK4] test/exam - oral or written
	[ZISZL3_W09] The student has knowledge of health care units, determinants shaping the effectiveness of their activities, taking into account regional and international aspects.	student distinguishes between the roles of the computer in health care student characterizes specialized medical databases student learns methods of computer analysis and processing of medical data	[SW4] test/exam - oral or written
	[ZISZL3_U05] The student is able to correctly select and apply methods and tools used, inter alia, in management and quality sciences, economics, sociology adequate to the problem and specificity of management of medical entities.	the student is able to indicate the factors forcing the development of medical informatics the student is able to list and describe medical computer systems the student is able to describe the role of databases and computer networks in health care units	[SU4] test/exam - oral or written
	[ZISZL3_U06] The student is able to identify, forecast and simulate selected economic and social phenomena in relation to the macro scale (economy, demography, health), as well as in micro terms (medical entities) using methods and tools applied in management.	the student is able to indicate the factors forcing the development of medical informatics the student is able to list and describe medical computer systems the student is able to describe the role of databases and computer networks in health care units	[SU4] test/exam - oral or written
Subject contents	-Why learn about medical informatics? -Different roles of computer in healthcare -Computers in hospital administration -Specialized medical databases -Methods of computer analysis and processing of medical data -Information systems related to medical images -Computer networks in medical informatics - Telemedicine -Security issues in medical informatics systems.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	exam	51.0%	100.0%
Recommended reading	Basic literature	K. R. Ong, Medical Informatics: An Executive Primer, Third Edition, HIMSS Publishing, 2015 S. Biedermann, Introduction to Healthcare Informatics, AHIMA, 2017 R. E. Hoyt, W. R. Hersh, Health Informatics: Practical Guide, Seventh Edition, Lulu.com, 2018 R. Zajdel, E. Kącki, P.S. Szczepaniak, M. Kurzyński, Kompendium informatyki medycznej, Alfa-medica Press, Bielsko-Biała, 2003	

	Supplementary literature	W. Trąbka, W. Komnata, L. Stalmach, A. Kozierkiewicz, Szpitalne systemy informatyczne, Vesalius, 1997 E.H. Shortliffe, G.O. Barnett, Medical Data: Their Acquisition, Storage, and Use, w Edward H. Shortliffe Leslie E. Perreault, Medical Informatics. Computer Applications in Health Care and Biomedicine, Second Edition, Springer, 2001
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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