



E-health, innovations and new technologies in healthcare

1. IMPRINT

Academic Year	2023/2024
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline	Medical sciences
Study Profile	General academic
Level of studies	Uniform MSc
Form of studies	Full time studies
Type of module / course	Non-compulsory (elective course)
Form of verification of learning outcomes	Completion
Educational Unit / Educational Units	Department of Social Medicine and Public Health Medical University of Warsaw Oczki 3, 02-007 Warszawa Phone: 22-621-52-56, 22-621-51-97 E-mail: zmsizp@wum.edu.pl

Head of Educational Unit / Heads of Educational Units	Prof. Aneta Nitsch-Osuch, MD, PhD
Course coordinator	Magdalena Bogdan, PhD e-mail: mbogdan@wum.edu.pl
Person responsible for syllabus	Magdalena Bogdan, PhD e-mail: mbogdan@wum.edu.pl
Teachers	Magdalena Bogdan, PhD

2. BASIC INFORMATION			
Year and semester of studies	I-VI year, summer and winter semester	Number of ECTS credits	2.00
FORMS OF CLASSES		Number of hours	ECTS credits calculation
Contacting hours with academic teacher			
Lecture (L)			
Seminar (S)		30 (e-learning)	1.00
Classes (C)			
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
Unassisted student's work			
Preparation for classes and completions		30	1.00

3. COURSE OBJECTIVES	
O1	This course will cover the major information about e-health, innovations and new technologies in healthcare.

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of effect of learning in accordance with standards of learning	Effects in time <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
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Knowledge – Graduate* knows and understands:

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Skills– Graduate* is able to:

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* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.

5. ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*

Number of effect of learning	Effects of learning in time
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Knowledge – Graduate knows and understands:

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Skills– Graduate is able to:

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Social Competencies – Graduate is ready for:

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6. CLASSES

Form of class	Class contents	Effects of Learning
(S) seminar 1 online	Introduction to global health innovations, including: telehealth, mobile technology, artificial intelligence, blockchain, health wearables, electronic health records tools, healthcare transportation, 3D printing, genomics, vertical integrations.	
(S) seminar 2 online	E-health and telemedicine and their role in the post-pandemic world.	
(S) seminar 3 online	The role of innovations and new technologies in healthcare – practical issues and examples.	
(S) seminar 4 online	Top healthcare marketing trends shaping innovations and new technologies.	

(S) seminar 5 online	The six factors that shape new healthcare ventures → structure, public policy, financing, consumers, technology, accountability.	
(S) seminar 6 online	Global Impact Challenges - individual student project divided into 3 parts.	

7. LITERATURE

Obligatory

1. Burns L.R., *The Business of Healthcare Innovation*, 2nd Edition, 2012.
2. Blumenthal D., Glaser J.P., *Information Technology Comes to Medicine*, *N Engl J Med* 2007.
3. Slack, Warner V., *Cybermedicine for the Patient*, *Am J Prev Med* 32, no. 5S, 2007.

Supplementary

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
<i>e.g. G.K1, G.S1, K1</i>	<i>This field defines the methods used for grading students e.g. pop quiz, test, written report etc.</i>	<i>e.g. threshold number of points</i>
	E-learning seminars attendance, 3 written assignments in frame of the project and final test at the e-learning platform.	Test pass >70% correct answers.

9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

The course is available on the platform www.e-learning.wum.edu.pl. Student must learn all materials uploaded to the modules on the platform. After each module there are questions (quizzes) or task related to its subject.

Student must send written assignments (tasks) to the teacher (using e-learning platform) and receive a positive evaluation. Student must send them before proceeding to the final test.

Student must pass the final test (available on the e-learning platform) to obtain a credit.

Students are obligatory to check MUW student email account as all information are sent only by formal MUW mails.

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ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers.