	ONTUSTIK-OAZAOSTAN MEDISINA AKADEMIASY «Онтустік Қазақстан медицина академиясы» АҚ Онтустік Қазақстан медицина академиясы» АҚ	танская медицинская академия»
9	Department "Medical Biophysics and Information Technologies"	№ 35-11-2025
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Syllabus

Department "Medical Biophysics and Information Technologies"

Work program of the course "Information and Communication Technologies"

Educational program 6B101115 – "Medicine"

	General info	ormation about the course	KI G	1, 40 E M. 15 34 40		
1.1	Course code	: ICT 1105	1.6	Academic year: 2025-2026		
1.2	Course name	Sign An St. Was in	1.7	Year: 1		
90,	Information and Communication Technology		1./	Teal. It		
1.3	Prerequisites	" 40 " 60 M. 1 2 2 M. W.	1.8	Term: 1		
1.4	Postrequisite	es: Project Activities and biostatistics	1.9	Number of credits (ECTS): 3		
1.5	Cycle: Gene	ral Education Subjects	1.10	Component: Mandatory component		
2.	Course cont	ent State of Williams	1, 100	60 Mil 15 Ch. Us. 600"		
system interne	is, types of sof	tware, database systems, data analysis	s and m	gies, including architecture of computer anagement, networking, cybersecurity s, smart technologies, AI fundamenta		
3.	Form of sur	nmative assessment	111.10	1 ch 13. 600 14 1 3. 40		
3.1	Testing V	VO. 60 M. 1 SK, VO. 0	3.5	Coursework		
3.2	Writing	, W. GO "17:1" \ S THE WAY	3.6	Essay		
3.3	Oral	Ch. Us. 60, 17, 17 Ch. V	3.7	Project		
3.4	OSPE / OSC	E 4, 73. 80 11:41 4	3.8	Other (specify)		
4.0	Objective of	f the course	77	. CONTINUE 1 2 M. S. CO.		
LO2 LO3	information a Describe the	and communication processes. architecture of computer systems and i	900	information, and ways to impleme s, including the purpose and functions		
LO4	Utilize Intern					
LO5	store data.		s and ne	3 6 41. 1 2 2 Was Er		
15	store data.		5K	tworks to collect, transmit, process, an		
15	store data. Analyze and	are and hardware for computer system	s for info	tworks to collect, transmit, process, an		
LO6 LO7	store data. Analyze and Develop data Demonstrate	justify the choice of methods and tools analysis and management tools for va	for info	tworks to collect, transmit, process, an		
LO6 LO7	store data. Analyze and Develop data Demonstrate	justify the choice of methods and tools analysis and management tools for vathe ability to apply the theory, method	for inforious ac	ormation security. tivities using digital technologies. principles of artificial intelligence in the		
LO6 LO7 LO 8	store data. Analyze and Develop data Demonstrate use of basic i	justify the choice of methods and tools analysis and management tools for vathe ability to apply the theory, method ntelligent software systems EP learning outcomes, which are respectively.	s for information actions acti	ormation security. tivities using digital technologies. principles of artificial intelligence in the		
LO6 LO7 LO 8	store data. Analyze and Develop data Demonstrate use of basic i Course LO LO1 LO2	justify the choice of methods and tools analysis and management tools for vathe ability to apply the theory, method ntelligent software systems EP learning outcomes, which are respectively LO1. Applies fundamental knowledges social-behavioral sciences to practice LO4. Communicates effectively with	s for information actions acti	ormation security. tivities using digital technologies. principles of artificial intelligence in the course learning outcomes omedical, clinical, epidemiological, ar		
LO6 LO7 LO 8	store data. Analyze and Develop data Demonstrate use of basic i Course LO LO1 LO2 LO3	justify the choice of methods and tools analysis and management tools for vathe ability to apply the theory, method ntelligent software systems EP learning outcomes, which are respectively and social-behavioral sciences to practice LO4. Communicates effectively with providers in an ethical, deontological information sharing and collaboration LO9. Works in the electronic database.	related to ge of bide. a patients and income.	ormation security. tivities using digital technologies. principles of artificial intelligence in the course learning outcomes omedical, clinical, epidemiological, are security manner, resulting in effective the RK health care system, providing ervices and management of medical are		

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6.2	Number	Prac. lessons	SIW	TS	6.00	SIW	Killion S
14	of hours	30 9	9	1 5	Mr.	51	SK. Wa
7.	Information abou		Marie do	Kr 9			L SK K
No T	Full nam		Academic degree	e and pos		Email ac	
04	vanova Marina Boriso		PhD, professor	90,1	. 4	marina-iv@mail	
	rmanov Nurlan Kerii	$\Delta C = C Y = \Delta X$	PhD, professor	900.		nurlanormanov2	AL
	erdiyeva Meruyert A		PhD,ass. prof.	3. 0		meruert_berdiev	
	bdrimova Zakhira M		Master's degree,		7.9	zakira75@mail.r	
5 In	nanbaeva Maral Ama	nbaevna	Master's degree,	senior tea		maral_81_19@n	_AU US
6 M	Iaulenova Akmaral A	itbekovna	Master's degree,			maral_tasken@n	nail.ru
7 A	bdrahmanova Zhanil	Zhusupovna	Master's degree,	senior tea	cher	<u>zhanil15@mail.r</u>	il All S
8 B	aidildaeva Akmaral S	Sagintaevna 🗔	Master's degree,	senior tea	cher	68.akmaral@ma	il.ru
8. \	Thematic plan	701. K	St. Va. 60 7	J. T.	SKI.	Vs. 60, 11,	12 24
Week	Topic	Brid	ef content	Course	Number of hours	Forms/ Methods/ Technolog ies of teaching	Forms/ Methods of
wash	Practical class/ Introduction to computer systems. Architecture of computer systems	Evolution systems. A components systems. U systems. Dat computer sy of metrics of	se of computer a representation in stems. Calculation of productivity of system: speed, energy costs,	LO 2 LO 3 LO 4 LO 5	or Skills	Discussion, demonstratio n, instruction, completing a practical assignment/ Presentation, computer training, specialized software	MCQ, practical assignment participation idiscussion According to the checklist
311.K	SIWT/SIW Consultation on completing the individual assignment / Development of flowcharts of computer devices. Stage 1.	Basic eleme Rules for bu Examples of Creating flow the operation	nts of flowcharts. uilding flowcharts. flowcharts/ wcharts describing ion of various	LO 4 LO 5	1/5	/Demonstrati on,instructio n/ computer training, Flowchart software	Flowchart /According to th checklist
SKING SKING	Software. Operating systems. Human- computer interaction	software, characteristic of OS. Evol systems. Coperating	Types of the purpose and c. Basic concepts ution of operating Classification of ystems, including bile devices. n of desktop	LO 2 LO 4 LO 5 LO 7	2011 na.edi skna	Discussion, demonstratio n,instruction, completing a practical assignment/ Presentation, computer	MCQ, practical assignment participation i discussion /According to th

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edn'y Kr skur Skur	Redukki si si Majedukki si si Skriajeduki ki Skriajeduki ki Skriajeduki ki	applications. User interface as means of human-computer interaction. Usability of interfaces. Types of interfaces: command line interface, text interface, graphic interface. Determination of properties of an operating system. Operation with files and directories.	SUSTANO SHOW	skulg graed	training, specialized software	checklist
Syna ed Skra Skra Skra Skra Skra Skra Skra Skra	SIWT/SIW/ Consultation on completing the individual assignment /Collecting, the analysis and structuration of data in the professional environment.	Design and development of a multi-table database: creating tables (including lookup fields, OLE objects, input masks), queries, forms, reports (MS Access)./Design and development of an individual multi-table database related to the future professional field.	LO 3 LO 4 LO 5	1/5	Demonstratio n, instruction / Computer training, MS Access	Database /According to the checklist
SKUSS SKOS SKO	Practical class/ Database systems	Development of database structure, creation of tables, forms, queries, reports (MS Access).	LO 1 LO 2 LO 4 LO 5 LO 7		Completing a practical assignment/ Presentation, computer training, specialized software	MCQ, practical assignment, participatio n in discussion / According to the checklist
a.e4 kma.edi kma.ekma. kh.kl.kl.	Practical class/ Database systems	Bases of database systems: concept, characteristic, architecture. Development of database structure, creation of tables, forms, queries, reports (MS Access).	LO 1 LO 2 LO 4 LO 5 LO 7	edu.k	Discussion, demonstratio n, instruction, completing a practical assignment/ Presentation, computer training, specialized software	MCQ, practical assignment, participatio n in discussion / According to the checklist
Skus eq	SIWT / SIW / Consultation on completing the individual assignment /Collecting, the analysis and structuration of data in the professional	Design and development of a multi-table database: creating tables (lookup fields, OLE objects, input mask), queries, forms, reports (MS Access). /Design and development of an individual multi-table database related to the future professional field.	LO 4 LO 5 LO 7	1/5	Demonstratio n, instruction / Computer training, MS Access	Database /According to the checklist

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My.	environment. Stage 2.	THUS. SEOLGHIYER S. SKU	Wg. J.	go (U)	1 S. SKILL	19. 69n/n
5,60 2,12 2,12 3,12 3,12 3,12 3,12 3,12 3,12	Practical class/ Data analysis.	Basics of Data Analysis. Methods of data collection and data classification.	LO 1 LO 2 LO 4 LO 5 LO 7	a.2 Skina Skin Skina Skina Skina Skina Skina Skina Skina Skina Skina Skina Ski	Discussion, completing a practical assignment/ Presentation, computer training, specialized software	MCQ, practical assignment, participation ir discussion. According to the checklist
skula.	SIWT / SIW / Consultation on completing the individual assignment /Description of network topology of the healthcare facility.	Requirements analysis based on the description of the healthcare facility. Designing the network topology. Documenting and justifying the decisions.	LO 1 LO 3 LO 4 LO 5	1/5 2	Demonstratio n,instruction/ computer training, 10- Strike Network Diagram	Report and flowchart /According to the checklist
na6 skina 1. kina 1. k	Data management	Processing of numerical information, editing formulas and creation of charts in spreadsheet editors (MS Excel).	LO 1 LO 4 LO 5 LO 6 LO 7	or 2, cl edul. na. edul skria. 1 skria.	Discussion, demonstratio n, instruction, completing a practical assignment/ Presentation, computer training, specialized software	MCQ, practical assignment, participation in discussion According to the checklist
na skup	Practical class/ Cybersecurity	Security risks of information and their classification. Malicious applications. Measures and means of information protection. The acts of the Republic of Kazakhstan governing legal relations in the sphere of information security. Electronic digital signature. Encryption. Settings of the Firewall program element of the computer network for network traffic monitoring and filtering. Working with the various antivirus programs.	LO 2 LO 4 LO 5 LO 7	ina.edi.k	Discussion, demonstratio n, instruction, completing a practical assignment/ Presentation, computer training, specialized software	MCQ, practical assignment, participation in discussion / According to the checklist
JU.K.	Midterm control 1 /Preparation for midterm control 1	Introduction to computer systems. Architecture of computer systems. Software.		1/5	Computer testing (MCO)	Evaluation i carried out using a 100-

C	ОПТИБТІК-QAZAGSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ	SKMA	MEDICAL	дицинская ака	демия»
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11,00	600 KJ 55	Operating systems. Human-	LO 4	90,	J 56 100	point scale.
KUI	3. 90 Kr 2	computer interaction.	LO 5	90	K1 5K 1	10, 50, 47.
2, 1/1	1, 3.0 gg, Kr	Database systems, Data	LO 6	200	17. KJ 24.	Wig. Sp.
15	1410 J. S. S. S. J. K.	analysis. Data management.	LO 7	O. C.	10.1	K, Wa. 6
	2.00	Networks	st.	Wo.	60 M. 17	chi wa.
K	26 100 500 YI	telecommunications.	12 0	1- W	60,777:4	1 24 0
17. K	1 2/2 Way 60	Cybersecurity. Internet	511	CKI,	Vg. 600"1"	1. 2/4
, 40.,	K1 54 Ma.	technologies.	WHO	1 SK	1, 13. 600	14. 12. of
8	Practical class/	End devices, data transfer		2	Discussion,	MCQ,
2.	Networks and	devices, transmission medium.	LO 2	1.1	demonstratio	practical
Jo.	telecommunicatio	Types of networks. Stack		111.10	n, instruction,	assignment,
. Wo	ns.	protocols: TCP/IP, OSI. IP	LO 5	30,""	completing a	participatio
	00 mil	addressing. Local and wide	7, 00.	000	practical	n in
	. Ws. 60, 111. L	area networks. Wire and	KU,	D. 0	assignment/	discussion /
1,	Tr, Vg. 600"1"	wireless network technologies.	2, 12	1,000	Presentation,	According
	K11, VS. 500	DHCP protocol. Technologies	1,5	Miller	computer	to the
11.Kr	1 2. 1/11, 03. 00	of connection to the Internet.	Kr		training,	checklist
70 !	F 1 2. Thursday	Creation of a simple network). Kr	5	specialized	KT 54.
000	1 2 Kur 3	configuration. IP addressing.	90. K	1 5	software	N. 17 3
9	Practical class/	Representation text, audio,	LO 1	2	Discussion,	MCQ,
V9.	Multimedia	video and graphical	LO 4). K	demonstratio	practical
U., 3	technologies	information in a digital format.	LO 5	40.	n, instruction,	assignment,
MIL	J. 290. K.	Basic technologies for	Wo.	Sp. YA	completing a	participatio
5	40 3:60 90. KJ	compression of information. 3-	K WO	ec.	practical	n in
5	160 Jis 10. 1	D representations of the virtual	SKI	VO. 6	assignment/	discussion /
	36, Wo So 11.	world and animation.	42	V9.	Presentation,	According
· 1	Sk. Wig Go Y	Instruments of development of	11	KII	computer	to the
YO,, 1	7 34 Wa. 60	multimedia applications. Use	1.1	KII	training,	checklist
, YO.	15 ch. vs.	of multimedia technologies for	11/4	1. 2. 7	specialized	1 2, 7
SO.	11. 12 ch, 33	planning, descriptions of	500 / Y	1/1/5	software	10. Kr 2
y, 6	7 11 1 2 KM	business processes and their	900	Kr	2, 14,0	go, Kr
V9.	500 11 K. 1 3. K.	visualization. Creating	3.00	D. K	SILVINO	10 90. K
71, 3	3. 600 11 K. 1 3.	presentations (Canva)	3.	gn.	Kr 2 SE KU	3.60 9/11.
CKI,	SIWT / SIW /	Choose a current medical topic.	LO 4	1/5	Demonstratio	Video file
Ys .	Consultation on	Research and script. Create a	LO 5	3.	n, instruction	and project /
1	completing the	storyboard. Use video editing	1 5	71	/ Computer	According
Y . 1.	individual	software. Record an edit.	5	Mo	training,	to the
. The	assignment	Publish.	K	5/	video editing	checklist
90, "	/Creation of video	go. Kr 25 My 3:60 4	D. KJ	SK	software	" I St
, 900	files with use of	10 41. KT 24 Wo 36	40.1	1 0	(VideoPad,	W. 12 6
3.	programs:	360 M. KJ 24 Way	Sp. Yn.	1	CapCut,	11.7.12
2.0	VideoPad,	Us 65 471. 15 34, Us	60, 7	11.1	Windows	60,717.6
Mo.	CapCut,	100 6 411, 17 ch.	VO. 6	111.	Movie	y. 602"1'Y
L. W.	Windows Movie	St. 40, 60 40. 11 34	Wg.	60,211	Maker)	Vg. 000.
SK,	Maker, etc.	34, Wg. 60, Mr. 17	1/1, US	60	111.11.12 3	71, Vg. 50
10 5	Internet	Basic Internet concepts. The		2	Discussion,	MCQ,
W	technologies	Uniform Resource Locator	LO 4	, Vg.	demonstratio	practical
). (I	St. Wo. 60	(URL), its assignment and	LO 5	This.	n, instruction,	assignment,
AUI.T	1 ch. vs. 6	components. DNS server. Web	1.4.1	3. 17.	completing a	participatio
30-11	1.1. 4. 70.	technologies. E-mail. Message	In The	12,	practical	n in

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skus.	skug egn k	format. SMTP, POP3, IMAP protocols. Creation of a website using the free website builder (Tilda or Mobirise).	Waish of Skings	sing of	assignment/ Presentation, computer training, specialized software	discussion / According to the checklist
	Practical class/ Smart technologies	Internet of things. Big data. Technology Block Chain. Use of Smart-services. Green technologies in ICT. Teleconferences. Telemedicine.	LO 4 LO 5 LO 8	S2 KL SULKI SU SULKI SU SU SULKI SU SU SU SU SU SU SU SU SU SU SU SU SU	Discussion, demonstratio n, instruction, completing a practical assignment/ Presentation, computer training, specialized software	MCQ, practical assignment, participation in discussion / According to the checklist
o edu. k	SIWT / SIW / Consultation on completing the individual assignment /Creation of video files with use of programs: VideoPad, CapCut, Windows Movie Maker, etc.	Choose a current medical topic. Research and script. Create a storyboard. Use video editing software. Record an edit. Publish.	LO 1 LO 4 LO 5 LO 8	1/4 2du. du 2du. du	Demonstratio n, instruction / Computer training	Report /According to the checklist
a. 12 di cha. ch cha. ch cha. ch cha. ch cha. ch cha. ch	Practical class/ Cloud and mobile technologies	Data centers. Tendencies of development of the modern infrastructure decisions. Principles of cloud computing. Technologies of virtualization. Web service in the Cloud. Main terms and concepts of mobile technologies. Mobile services. Standards of mobile technologies. Introduction to Google Docs and Microsoft Office Web Apps cloud services. Creation accounts to work with cloud services. Study of operation modes associated with file storage, sharing and processing. Use of mobile technologies for receiving an information access. GPS navigators.	LO 4 LO 5 LO 8	L. R. S.	Discussion, demonstratio n, instruction, completing a practical assignment/ Presentation, computer training, specialized software	MCQ, practical assignment, participation in discussion / According to the checklist

онтизтік-оадаоsтан медізіна академіязу «Онтустік Қазақстан медицина академиясы» АК

Department "Medical Biophysics and Information Technologies"

SOUTH КАЗАКНЯТАН

MEDICAL ACADEMY
AO «Южно-Казахстанская медицинская академия»

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a.edu.k.	Practical class/ Introduction to AI	Basic concepts of AI. History and development of AI. Knowledge representation models. Fundamentals of AI research. Ethical Considerations in AI	LO 4 LO 5 LO 8	diskura Skura Skura Skura	Discussion, demonstratio n, instruction, completing a practical assignment/ Presentation, computer training, specialized software	MCQ, practical assignment, participatio n in discussion / According to the checklist
Skula granski granski granski	SIWT / SIW / Consultation on completing the individual assignment /AI and Society Comparative analysis of AI tools	Studying recent articles and publications on the latest achievements in artificial intelligence. Conducting research and creation a video report about impact of AI on various aspects of public life. Comparing the functionality and effectiveness of various artificial intelligence tools and platforms.	LO 4 LO 5 LO 8		Demonstration, instruction / Computer training, interview	Report /According to the checklist
S14kn SKINS SKINS SKINS	Practical class/ Introduction to AI tools and platforms. Large Language Models. Generative AI tools.	Studying different AI tools and platforms. Practical use of various tools and platforms for working with AI. Introduction to Large Language Models (LLM). Using LLMs for text generation and summarization. Overview of Generative AI tools. Creating generative art and music using AI tools. Studying possible experiments with various generative art tools to create images and music.	LO 4 LO 5 LO 7		Discussion, demonstratio n, instruction, completing a practical assignment/ Presentation, computer training, specialized software	MCQ, practical assignment, participatio n in discussion / According to the checklist
klysieg segni yrk	Midterm control 2 /Preparation for midterm control 2	edu.kl. s. skinna. edu.kl. skina. edu.k na. edu.kl. kl. skina. edu.kl. na. edu.kl. kl. skina. edu.kl. skina. edu.kl. kl. skina. edu.kl.	LO 1 LO 2 LO 3 LO 4 LO 5 LO 6 LO 7 LO 8	1/4	Computer testing (MCQ)	Evaluation is carried out using a 100-point scale.
215 H	Practical class/ Information technologies in medicine and pharmacy. Prospects of	The software for the solution of tasks of the specialized professional sphere. Modern IT trends in medicine and pharmacy. Use of search engines and electronic	LO 1 LO 4 LO 5	20 No.	Discussion, demonstratio n, completing a practical assignment/	MCQ, practical assignment, participation in discussion / According

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JU.KI.KI	development of ICT	resources in the sphere. Using S software for medical and ph data. Prospects of in the sphere of th development of software.	TATISTICA processing armaceutical development e IT market:	Presentat computer training,	
ie yn	Exam preparation a	and conducting	St. 49. 60, 11)	9	60,114,1
9.		s and Assessment I		W. 17 ct. "	19. 600 11. 1
SKU	Practical class	Presentation, comp	nstration, instruction outer training, special ssignment, participat	lized software	KU, 39. 690"
19.2	SIWT / SIW	Video report with	se, Report and flow research results / Ac	cording to the check	dist
9.3	Midterm control		(MCQ). Evaluation	is carried out using	a 100-point scale.
10.	Assessment criter		1, 19. 600 11 K	11 st. 10.	SQ0 1/4 2, 3
10.1.		ing course learning	outcomes	1 2 4 M	. CON 14 3
LO#	Learning outcome	Unsatisfactory	Satisfactory	Good	Excellent
LOIS SKING ALL A BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING BENDA SKING SKI	Explain the purpose, content, and development trends of information and communication technologies, and justify the choice of the most suitable technology for solving specific tasks	1 skulgi egedn	choice of technology at a basic level.	purpose, content, and main trends of ICT well. Able to justify the choice of technology for solving tasks, though with some minor inaccuracies.	and development trends of ICT. Confidently and convincingly selects the most suitable technologies for solving specific tasks
LO2 du.k. a.edu.k skina skina	Explain methods for collecting, storing, and processing information, and ways to implement information and communication processes	Incorrectly explains methods for collecting, storing, and processing information. Does not understand how to implement information and communication processes.	Explains the methods in general terms but with errors. Can describe the basic ways of implementing processes, though with some shortcomings.	Explains the methods and ways to implement processes well, though some aspects may require clarification.	Fully and accurately explains methods for collecting, storing, and processing information. Confidently describes ways to implement processes.
LO3	Describe the architecture of computer systems	Unable to	Has a general understanding of system and	Describes the architecture, purpose, and	Clearly and accurately

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) ¹ .	Department "Medical Biophysics and Info	rmatio	n Technologies"	№ 35-11-2	2025
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10.2.	Criteria for assessi	ing C	10 Co 717, 11	ch, vo. 60	11. 1 de s
LO8	Demonstrate the ability to apply the theory, methods, and principles of AI in the use of basic intelligent software systems	Does not demonstrate understanding or ability to apply AI theory and methods.	Understands basic principles but struggles to apply them.	Confidently applies AI theory and methods, though with some inaccuracies.	Fully and accurately applies AI theory, methods, and principles in the use of software systems.
LO7	Develop data analysis and management tools for various activities using digital technologies	Unable to develop effective tools for data analysis and management.	Can develop basic tools, but with limited functionality.	Develops functional tools, though improvements.	Develops high- quality and effective tools for data analysis and management.
LO6	Analyze and justify the choice of methods and tools for information security	Unable to analyze or justify the choice of methods and tools.	Can perform a basic analysis and justification, but with errors.	Analyzes and justifies choices well, though there are some shortcomings.	Thoroughly analyzes and convincingly justifies the choice of the most appropriate methods and tools.
LOS P	Apply software and hardware for computer systems and networks to collect, transmit, process, and store data	Unable to properly use software and hardware.	Can use software and hardware, but with limited effectiveness.	Confidently applies software and hardware, though there are minor shortcomings.	Fully proficient in applying software and hardware to accomplish all tasks.
LO4 Maria	Utilize Internet resources, cloud services, and mobile applications for searching, storing, processing, and disseminating information	Unable to effectively utilize internet resources, cloud services, and mobile applications.	Can use these tools at a basic level but with limited effectiveness.	Confidently uses internet resources and applications, though there is room for improvement.	Effectively and confidently uses all listed tools to accomplish tasks.
skma. 1 skm	and networks, including the purpose and functions of key components	computer systems and networks. Makes errors in identifying the purpose and functions of components.	network architecture, but makes mistakes. Can describe key components, though not always accurately.	functions of key components well, though there are minor inaccuracies.	and networks, as well as the functions of all key components.

Checklist for assessing practical class

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Form of Work	Criterion	Description	Points (max 100
A-00 - 2:	10 Km 2 Kg	All answers are correct	17-20
ting 0 1ts)	Ovality of Angura	Most answers are correct, but there are errors	12-16
Testing (20 points)	Quality of Answe	Partially correct answers	7-11
KE SEVI	3.6. 901. KI	Many incorrect answers	0-6
F 1 9 1	100 Sie 200, 14	Fully completed with correct results	50-55
n o al er Es)	Completeness of	Completed, but with minor errors	35-49
Completion of Individual Computer Task (60 points)	Task	Partially completed with significant errors	20-34
	31/1/10	Task completed partially or with multiple errors	0-19
	Adherence to	On time	5
200	Deadlines	Late	0
74000	10. Kr 32.10	Active participation, constructive comments	5-10
SELVE	Activity in	Participation with minimal comments	3-4
Participation in Discussion (20 points)	Participation	Passive participation or lack of constructive comments	0-2
icip iscu 0 p	40 Sp. 70.	Clearly formulated and justified arguments	5-10
T A C	Quality of	Arguments present but not always justified	3-4
S. 47. 1	Argumentation	Arguments absent or unconvincing	0-2
10 17 - 17 17	sessing SIW/SIWT	An. It sky so on the sky was	30,971
SIW 1 Form of Work	Criterion	Description	Points
TOTAL OF WORK	V. K. 2, W.	IN TO YOUNG SON TO BE	(max 100
1 Ses All Marie	Accuracy of the Flowchart	he The flowchart is fully accurate and reflects all necessary components and processes The flowchart is mostly accurate, but there are minor errors	
r dev	Waise Egniniky		
computer devices chart tool) points)	skuja e egn	The flowchart has significant errors, with some components and processes missing	5-14
on Sha poi	84, Wg. 6	The flowchart is inaccurate or incomplete	0-4
	1 skyno.	The flowchart is clearly designed in Lucidchart, all elements are easily readable and logically connected	10-15
Flowchart of (Lucid	Readability and	The flowchart is generally readable, but there are minor	5-9
	Design	design flaws	(V).
T Services	Design	design flaws Readability and design hinder understanding of the flowchart	0-4
Flow	Design	Readability and design hinder understanding of the flowchart All necessary tables are created, properly structured, and	0-4
111/12 SK	Tus egnir	Readability and design hinder understanding of the flowchart All necessary tables are created, properly structured, and relationships between tables are established Tables are created, but there are errors in structure or not	1 5
171. KT 3 KK	Tables	Readability and design hinder understanding of the flowchart All necessary tables are created, properly structured, and relationships between tables are established Tables are created, but there are errors in structure or not all relationships are correctly set Tables are partially created, with significant errors in	15-20
111/12 SK	Tus egnir	Readability and design hinder understanding of the flowchart All necessary tables are created, properly structured, and relationships between tables are established Tables are created, but there are errors in structure or not all relationships are correctly set Tables are partially created, with significant errors in structure and relationships	15-20 10-14 5-9
171.15 SK.	Tus egnir	Readability and design hinder understanding of the flowchart All necessary tables are created, properly structured, and relationships between tables are established Tables are created, but there are errors in structure or not all relationships are correctly set Tables are partially created, with significant errors in	15-20
(ccess)	Tus egnir	Readability and design hinder understanding of the flowchart All necessary tables are created, properly structured, and relationships between tables are established Tables are created, but there are errors in structure or not all relationships are correctly set Tables are partially created, with significant errors in structure and relationships Tables are missing or incorrect All necessary forms are created, functional, and user-	15-20 10-14 5-9 0-4

Forms are partially created or incorrectly designed

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171, 3. 30	The state of the s	(10 80 YOU RE CL

9. 60 Mil	1 3/4 100.	Queries are correct, efficiently retrieve and process data	10-15
Kwara egn.	Queries	Queries are created but work inefficiently or contain	5-9
SK, Wa. Gr	111. CA	Queries are partially created or incorrect	0-4
KT 2KWg.	eg 901/K	Reports are created and accurately display query results and data	10-15
341/KT 24	Reports	Reports are created, but their content or format needs improvement	5-9
0 90. AT	Se The Sign	Reports are missing or incorrect	0-4
Form of Work	Criterion	Description	Points (max 100)
on et, ige	Searching for	Relevant information on current medical topics and educational resources is found	30-40
mation ternet, storage	Specialty- Related	Information is mostly relevant but has minor omissions	20-29
inte inte ",	Information	Search is incomplete or contains minor errors	10-19
infor the India data sing"	VI. 50 90. 1	Search is not done or is completely incorrect	0-9
for on 1 for ces ord) ints)	Using Cloud Services for	Account is created, cloud collaboration is organized, and requirements are met	14-20
searching specialty 1 services 1 data pro (MS W(Data Storage	Account is created but has minor issues in collaboration	7-13
pecial pecial servical data (MS (100	Using Cloud	Cloud work is partially completed or has errors	0-6
a a a	Services for Data Processing	Data analysis and visualization are done using Google Sheets	30-40
Report related using cl	iedniki 13 sk	Data analysis and visualization are done, but contain errors	20-29
Re us	, 560 M. KI	Data analysis is partial or has significant errors	10-19
CIVI 2	Vo. 60 M.	Data analysis is not done or is done incorrectly	0-9
SIW 3	SKULUS SON	Topic is current, research is thorough, and script is written	30-40
1, 2 6 70.	Topic Choice	Topic is chosen, but research or script needs improvement	20-29
e Mal	and Research	Topic is chosen, but research is superficial and script has errors	10-19
Movi		Topic is not chosen or research and script are completely missing	0-9
Video File CapCut, Windows Movie Maker (100 points)	Creation of	Storyboard is detailed and reflects the content of the video	14-20
ide Win	Storyboard	Storyboard is created but requires improvements	7-13
V Cut, V (16	J. Skilling . Se	Storyboard is partially done or does not reflect the content of the video	80-0
	W.K. J. SKULLE	Video is edited professionally, with good quality recording and editing	30-40
ad A	Use of Video	Video is edited with minor errors	20-29
VideoPad,	Editing Software	Video is edited, but quality of recording or editing is poor Video is not edited or edited poorly	10-19 0-9
MY SE SE	Mg. Edn. K	Research is conducted but not all aspects are covered or there are gaps in the analysis	10-14

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10 160 47. 1 34. W.	Research is supe	erficial or insu	ifficiently de	etailed	5-9	
My Jieg 41. KT 2K	Research is not				0-4	
SKULD SER SANIE SE	Video report is v	well-structured	d, profession			
Quality of Vio	deo Video report is o			errors or	10-14	
Report	Video report is o			rs or weak	5-9	
6 47. 15 Pr. Wo 6	Video report is a	nissing or poo	orly executed	1, 00	0-4	
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The test consists of 50 questions			70-89		Good	
Evaluation is carried out using a		I st	50-69	S	atisfactory	
The duration of the test is 50 min	1. St. 10. 80)	W. 12 6	<50	$J^{\prime\prime}$, $I^{\prime\prime}$	Jnsatisfactory 🔿	
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Electronic textbooks

- 1. Information and communication technology [Электронный ресурс]: учебное пособие/ М. Б. Сапрыгина, К.Ж. Кудабаев. Электрон. текстовые дан. (20.2Мб). Алматы: [s. n.], 2017. 134 эл. опт. диск (CD-ROM) (на трех языках)
- 2. Қ.Ж. Құдабаев, А.С. Байділдаева, З.М. Абдримова, А.А. Мауленова, З.С. Халметов.

	ONTUSTIK-QAZAOSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ	инская академия»
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- 3. К.Ж. Кудабаев, З.С. Халметов, А.А. Мауленова, З.М. Абдримова, А.С.Байдилдаева. Учебнометодическое пособие «Сборник тестовых заданий по информатике».- Алматы, «Эверо», 2020г., 150 с. https://elib.kz/ru/search/read_book/2948/
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- 7. Urmashev B.A. Information-communication technology: Textbook/ Ministry of education and science of the Republic of Kazakhstan, Association of higher educational institutions of Kazakhstan.- Almaty: Bookprint, 2016.- 413 p. http://rmebrk.kz/book/1165091
- 8. Polyakov, M. V. Intelligent data analysis in medicine: study aid / M.V. Polyakov.- Москва: Ай Пи Ар Медиа, 2024.- 73 с. // IPR SMART: https://www.iprbookshop.ru/135229.html
- 9. Интеллектуальные информационные технологии в управлении биомедицинским оборудованием: уч. пособие / Н.В. [и др.]; под редакцией Л.В. Черкесовой. Ростов-на-Дону: ДГТУ, 2022.- 142 с.// IPR SMART: https://www.iprbookshop.ru/130404.html
- 10. Голиков А.М. Цифрлық байланыс жүйелеріндегі ақпаратты қорғау: оқулық / А.М. Голиков.-Алматы, Москва: EDP Hub, Ай Пи Ар Медиа, 2024.- 286 с. // IPR SMART: https://www.iprbookshop.ru/138445.html
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- 12.Поляков М. В. Медицинадағы деректерді өндіру: оқу құралы.- Алматы, Москва: EDP Hub, Ай Пи Ар Медиа, 2024.- 85 с. // IPR SMART: https://www.iprbookshop.ru/135262.html
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https://www.iprbookshop.ru/149310.html

- 14. Christian Bohm; Claudia Plant. Database Technology For Life Sciences And Medicine/ Science, Engineering, and Biology Informatics. Singapore: World Scientific, 2010 // eBook Medical Collection EBSCO
- 15.G.J.E. De Moor. Transatlantic Cooperation Surrounding Health Related Information and Communication Technology.- Amsterdam: IOS Press. 2011. // eBook Medical Collection EBSCO
- 16.K.L. Courtney, O. Shabestari, A. Kuo. Enabling Health and Healthcare Through ICT: Available, Tailored and Closer.- Amsterdam: SAGE Publications Ltd.- 2013. // eBook Medical Collection EBSCO

Laboratory physical resources

- Desktop computers;
- Networking equipment;
- Storage devices;
- Whiteboard;
- Projector;
- Mobile devices (tablets and smattphones).

Software

- Microsoft Office (Word, Excel, Access, Power point);
- Lucidchart tool;
- Tild website bilder;

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- Canva tool;
- Strike Network Diagram tool;
- VideoPad, CapCut, Windows Movie Maker, etc.;
- AI tools;
- STATISTICA

Main Literature

- 1. Нурпеисова Т. Б. Информационно-коммуникационные технологии: учеб. пособие.-2017
- 2. Хакимова Т. Практикум по курсу "Основы информатики": уч. пос. Алматы: "NURPRESS".-201
- 3. Urmashev B.A. Information-communication technology: Textbook /B.A. Urmashev.-Almaty: Association of higher educational instutions of Kazakhstan, 2016
- 4. Koshimbaev Sh.K. Automation of standard technological processes [Text]: textbook / Sh.K.Koshimbaev, B.A. Suleimenov.-Almaty:[s.n.], 2016.- 266p.
- 5. Manapov N.T. Computer chemistry [Tekct]: textbook/ N.T. Manapov.- Almaty: Association of higher educational institutions of Kazakhstan, 2016. 312 p
- 6. Methods of teaching computer science Textbook / E. Bidaibekov [and etc.].- Almaty:[s.n.], 2016.- 359 p.
- 7. Nurpeisova T.B. Information and Communication Technologies: Text-book / T.B. Nurpeisova, I.N. Kaidash.- Almaty: Bastau, 2017.- 480 p.

Additional Literature

- 1. Қойбағарова Т.Қ. Информатика: оқу-әдістемелік құралы Түзет.,толықт.2-бас. Алматы: Эверо.- 2014,325 бет.
- 2. Информатикадан тест тапсырмаларының жинағы: оқу-әдістемелік құрал- Алматы: Эверо.-2014
- 3. Сборник тестовых заданий по информатике: учеб.-методическое пособие / К. Ж. Кудабаев [и др.].- Рек. решением учеб.-метод. совета ЮКГФА.- Алматы: Эверо, 2014.- 114 с.

12. | Course Policy and Requirements

- **1. Attendance:** Regular attendance is mandatory. Students must attend at least 80% of the classes to qualify for the final examination. Participation in all scheduled activities, including practical tasks and SIWs is essential.
- **2. Assignments and Projects:** All assignments and projects must be submitted on time. Late submissions will incur penalties unless prior arrangements have been made with the instructor. Assignments must meet the specified criteria and be submitted in the required format.
- **3. Examinations and Assessments:** Two midterm assessments will be conducted during the semester, on the seventh and fourteenth weeks, respectively. Passing these midterm assessments is mandatory for eligibility to sit for the final exam. The results of the midterm assessments will be sent to the Dean's Office in the form of a report at the end of the assessment week. Both midterm controls will be conducted under strict examination conditions, and any form of academic dishonesty will result in severe consequences.
- **4. Grading Policy**: The final exam grade will be calculated as the sum of the current assessment grade and the final exam grade. The current assessment includes grades for each practical class, completion of student independent work, and results of midterm controls, accounting for 60% of the overall grade. The final exam accounts for 40% of the overall grade. To pass the course, students must achieve a minimum overall score of 50%.
- **5.** Communication: Students should regularly check the course's online platform (Platonus, Whatsapp chat) for announcements, assignment details, and other important information. Queries and communications should be directed through the official communication channels provided by the instructor.
- **6. Academic Integrity**: Students are expected to uphold the highest standards of academic integrity. Plagiarism, cheating, and other forms of academic dishonesty will not be tolerated and will result in disciplinary action.
- **7. Technology Requirements:** Students must have access to a computer with the necessary software installed. Reliable internet access is also required for completing online assignments and participating in virtual classes.

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- 8. Behavioral Requirements: Students are expected to show respect and courtesy towards both the instructor and their classmates. Tolerance and appropriate behavior in the learning environment are required. Medical students must wear white coats and medical caps during classes.
- 9. Support and Resources: If you encounter difficulties with the course content or assignments, seek help

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