ΟΝΤÚSTIK-QAZAQSTAN 2020 SOUTH KAZAKHSTAN	
MEDISINA (SKMA) MEDICAL	
AKADEMIASY JL ACADEMY	
«Оңтүстік Қазақстан медицина академиясы» АҚ 🛛 💭 АО «Южно-Казахстанская ме	едицинская академия»
Department of "Medical Biophysics and Information Technology"	044-35/09 ( )
Syllabus on the subject "Information and communication technology"	1 page out of 16

# Department «Medical Biophysics and Information Technology» Discipline work program (Syllabus) Educational program 6B10104 «Nursing»

1.	General information about theCourse						
1.1	Course code: ICT 1105		1.6	A	Academic year: 2023-2024		
1.2	Course name: Information and communication technolog	у	1.7	γ	Year: 1		
1.3	Prerequisites:- 1.		1.8	Г	Ferm: 1		
1.4	Post-requisites: Basics of Evidence Nursing		1.9	Ν	Number of credits (ECTS): 5		
1.5	Cycle: general education discipline		1.10	) (	Component: main component		
2.	Course description				<b>Å</b>		
	An ICT role in key sectors of development of society. Intr	roducti	ion t	o com	puter systems. Software. Operating		
system	s. Human-computer interaction. Database systems. D	Data a	naly	sis. D	ata management. Networks and		
telecon	nmunications. Cybersecurity. Internet technology. Cl	oud,	mot	oile te	chnology. Multimedia, SMART		
techno	logy. E-technology. Information technology in the p	rofessi	ional	spher	re. Industrial ICT. Prospects of		
develo	pment of ICT.						
3.	Summative assessment form						
3.1	Testing	3.5		Cours	sework		
3.2	Writing	3.6		Essay			
3.3	Oral	3.7		Projec	ct		
3.4	OSPE / OSCE or Practical Skills Acceptance	3.8		Other	(specify)		
4.	Discipline objectives		I				
	The purpose of the discipline, Formation of students ' of	compet	tence	e syste	ms in the use of information and		
comm	unication technologies in practical and scientific activities	ľ		2			
5.	Learning outcomes (Course learning outcomes)						
CLO1	Learning outcomes of the graduate of the educational	prograi	m				
CLO2	. He is able to apply his knowledge to establish the patie	ent's pr	oble	ems and	d formulate a nursing diagnosis for		
	people of different age categories	_					
CLO3	Demonstrates knowledge and implements, evaluates the	Demonstrates knowledge and implements, evaluates the effectiveness of the nursing process in specialized					
	areas of medicine	areas of medicine					
CLO4	Conducts pre-medical outpatient admission of patients	Conducts pre-medical outpatient admission of patients with major socially significant diseases with the					
	use of modern information technologies	odern information technologies					
CLO5	Conducts patronage of patients (elderly, dispensary pa	tients,	tube	rculosi	is, cancer patients)		
CLO6	Demonstrates the training skills of the patient and/or h	is fami	ily n	nember	rs		
CLO7	Implements and evaluates the effectiveness of health p	romoti	ion i	neasur	es		
CLO8	Applies skills of healthy lifestyle formation and diseas	e preve	entic	on at th	e PHC level		
5.1	Course learning outcomes	1 1		<u></u>	1		
CLO	1. CLO 3 Demonstrates knowledge owns information te	chnolo	ogy, o	effectiv	vely uses information in the field		
	of neathcare						
	2. CLO 3 Explain the methods of collection, storage and	proces	ssing of information, methods of				
	CLO 2 Uses digital technologies in diagnostics, treatm	ont on	s III i d or	ne met	ion of modical convices uses		
CLUS	software and hardware of computer systems and netwo	when and	u or r dat	gamzai	action transmission processing		
	and storage: Use information internet resources, cloud and m			e servi	ces for search storage processing		
	and storage, use minimation internet resources, croad and mobile services for search, storage, processing			tes for search, storage, processing			
CLO4	CLO3 Apply of information technologies in health car	e. effe	ctive	elvuse	information and in-formation		
CLOI	technologies in the field of medicine						
CL05	T O5 CL O 3Analyze and justify the choice of methods and means of information protection:			tion protection:			
	Carry out project activities in the specialty with the use	e of mo	oder	n infor	mation and communication		
	technologies.						
6.	Details of the course						
6.1	Department of Medical Biophysics and Information	n Tech	nol	ogies			

ОЙТÚSTIК-QAZAQSTAN MEDISINA АКАДЕМІАSY «Оңтүстік Қазақстан медицина академиясы» АҚ ОЙТÚSTIК-QAZAQSTAN MEDISINA АКАДЕМІАSY ОЙТÓSTIК-QAZAQSTAN МЕДІSINA АКАДЕМІАSY АСАДЕМУ АО «Южно-Казахстанская м	едицинская академия»
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	Place of classes: Shymkent, $\Phi$ l-Farabi-1 sq., SKMA, main building, 5th floor, Classrooms No. 500-511.								
6.2 Number		-37-37 (1003).	Eman addres	Prac lessons	I ab lessons		SIW	SIWT	
		of hours	1	0	40	Luo.i	-	70	30
	7.	Informat	ion about teac	hers					
N⁰	Fu	ll name	Degrees and title	Email address	Scientific intere	ests, etc.		Achievem	ents
1.	Ivano Marin Boris	ova na ovna	PhD, Professor	<u>marina-</u> iv@mail.ru	Theory of differ equations. Medi processing with STATISTICA, S	ential cal data SPSS.	Author publica teachin textboo electro	of over ttions, one g aids, a ok "Biosta nic dictionary	50 scientific monograph, 6 an electronic tistics", an "ICT".
2.	Berdi Meru Aima	yeva yert mbetovna	PhD	<u>meruert_ber</u> <u>eva</u> @mail.ru	r <u>di</u> Innovative teach methods	ning	Author method method	of over 30 lical articles, lical instructio	) scientificand 1 book, 11 ns.
3	Abdri Zakhi Mara	imova ira tovna	Master'sdegr ee Senior teacher	zakira75@n il.ru	<u>na</u> Using statistical software STA' for medical processing	analysis TISTICS data	Author of repo Kazakł several	of the textboo rts from biosta a language. "IO scientific arti	ok "Collection atistics" in the CT". Author of cles.
4 Maulenova Master'sdegr Akmaral ee Senior Aitbekovna teacher		Master'sdegr ee Senior teacher	maral_taske @mail.ru	en Innovative teaching methods		Author of over 10 scientific and methodical articles, 1 book, 3 methodical instructions.		ientific and book, 3 ns.	
:	8.	Thematic	: plan			1			
We	Top	pic name		Summary		Course	Numb	Forms /	Forms /
ек/						ing out-	er of hours	learning	methods
v v						comes	nours	technologies	memous
1	LEC key of s fiel- to c Arc syst	CTURE. A sectors of society. Star d of ICT. In computer sy thitecture of tems	n ICT role in development ndards in the ntroduction vstems. f computer LESSON f metrics of of computer	Definition of and its purpo key sectors of society. between ICT of the of sustainable d Millennium Standards i ICT.Review systems. Evo systems. Evo systems. Evo systems. U systems. Dat components systems. Dat computer sys Computer lab and compon	FICT. Subject ICT ses. An ICT role in of development of Communication and achievement objectives of a levelopment in the Declaration. In the field of of computer of computer Architecture and of computer a representation in tems.	CLO1 CLO2 CLO3	1	Lecture information seminar individual task	Feedback (quick survey)
	syst ene law SIV	tem: speed rgy costs , CPU time VTConsulta	l, efficiency, s, Amdahl's e. ation on the	systems. Dat computer system: sp energy costs CPU time. Multifunction tasking opera	a representation in systems.Computer peed, efficiency, s, Amdahl's law, nal and single ting system File	CLO4 CLO5	2/5	individual task	Logical
	mp	nementatio	n or an	tasking opera	ung system. rne	CLUS		lask	nowcharts

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MEDISINA AKADEMIASY		
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	individual task 1	directories and folders in				
	flowcharts of operation of	operating system.				
	devices of the computer					
	Stage 1.					
2	LECTURE. Software.	Software. Types of the	CLO1	1	Lecture	Feedback
	Operating systems.	software, purpose and			information	(quick
	Human-computer	characteristic. Basic concepts				survey)
	interaction.	of OS. Evolution of operating				
		systems. Classification of				
		operating systems, including				
		for mobile devices.				
		Classification of desktop				
		applications. User interface as				
		means of human-computer				
		interaction. Usability of				
		and line interfaces text				
		interface, graphic interface				
		Physical and mental				
		characteristics of the user.				
		Development stages of the user				
		interface. Types of testing of				
		interfaces (testing of users).				
		Perspectives of development of				
		interfaces.				
	PRACTICAL LESSON.	Multifunctional and single	CLO1	3	practicum	oral survey
	Determination of properties	tasking operating system. File	CLO2		individual	practical
	of an operating system.	directories and folders in	CLO3		task	work
	Operation with files and	operating system.				
	SIWT Consultation on the	Graphical mathed of describing		2/5	individual	aomniling
	implementation of an	the algorithm for solving the	CL04	2/3	task	the glossary
	individual task 2	problem	CLOJ		tusk	the glossury
	SIW. Development of					
	flowcharts of operation of					
	devices of the computer.					
	Stage 2.					
3	PRACTICAL LESSON.	Working with programmer	CLO2	2	computer	individual
	Determination of	Mobirise.	CLO3		based	task,
	requirements to				teaching	oral survey
	development "convenient					
	in application the website.	Creation of latebases in MC	CL O4	2/4	·	
	implementation of an	Access for application in		2/4	individual task	database
	individual task 3	professional sphere	CLOJ		lask	uatabase
	SIW Collecting the					
	analysis and structurization					
	of data in the professional					
	environment (development					
	of the database in the MS					
	Access). Stage 1.					
4	LECTURE.	Bases of database systems:	CLO1	1	Lecture-	Feedback
	Database systems	concept, characteristic,			information	(quick

ойти́зтік-оагаозтан МЕДІЗІНА АКАДЕМІАЅҮ «Оңтүстік Қазақстан медицина академиясы» АҚ Остановия и собе Собе Собе Собе Собе Собе Собе Собе С	едицинская академия»
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		architecture. Data models. Normalization. Integrity constraint on data. Query tuning and their processing. Fundamentals of SQL. Parallel processing of data and their restoration. Design and development of databases. Technology of programming of ORM. The distributed, parallel and heterogeneous databases.				survey)
	PRACTICAL LESSON. Development of database structure, creation of tables and requests. Working with a MySQL relational database. MySQL database administration using php MyAdmin. Working with a single-table database.	The database management system: definitions and functions, basic architectural solutions. The date model of DB. Creating medical database: tables, queries. Working with Forms and Reports.	CLO2	3	computer based teaching	oral survey creation of tables and requests.
	SIWTConsultation on the implementation of an individual task 4 SIW.Collecting, the analysis and structurization of data in the professional environment (development of the database in the MS Access). Stage 2.	Creation of databases in MS Access for application in professional sphere	CLO4 CLO5	2/4	individual task	for preparation crossword
5	LECTURE. Data analysis. Data management	Data analysis bases. Methods of collection, classification and prediction. Decision trees. Processing of large volumes of data. Methods and stages of Data mining. Tasks Datamining. Visualization of data.	CLO 1	1	Lecture information	Feedback (quick survey)
	PRACTICAL LESSON. Design and creation of the presentations of lecture material, scientific reports, etc.	Creating of presentations, entering text on a slide. Adding of pictures and clip art. MS PowerPoint: adding of hyperlinks, animations and sound effects	CLO2	3	computer based teaching	individual task spreadsheet s, oral survey
	SIWT Consultation on the implementation of an individual task 5 SIW. Description of network topology of the office building. Stage 1.	Software, hardware of networks using in the office building	CLO4 CLO5	2/4	individual task	creating presentatio n
6	PRACTICAL LESSON. Processing of numerical information, editing formulas and creation of charts in spreadsheet editors.	The database management system: definitions and functions, basic architectural solutions. The date model of DB. Creating medical database: tables	CLO2 CLO3	2	computer based teaching	individual task, oral survey

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	SIWT Consultation on the implementation of an individual task 6 SIW. Description of network topology of the office building. Stage 2.	Software, hardware of networks using in the office building	CLO4	2/4	individual task	creating of MCQs
7	LECTURE. Networks and telecommunications	End devices, data transfer devices, transmission medium. Types of networks. Stack protocols: TCP/IP, OSI. IP addressing. Local and wide area networks. Wire and wireless network technologies. DHCP protocol. Technologies of connection to the Internet. Telecommunication technologies.	CLO 1	1	Lecture information	Feedback (quick survey)
	PRACTICAL LESSON. Creation of a simple network configuration. IP addressing. Monitoring of a network. Analysis of traffic. Use of sniffers for the analysis of network packets.	Networks and telecommunications. Classification of networks. Types of topologies. Types of servers.	CLO2 CLO3	3	Work in pairs, partial search	individual task, oral survey
	SIW. Reception of boundary control 1 SIWT. Preparation for the boundary control 1		CLO1	2/4	-	Testing MCQ
8	LECTURE. Cybersecurity	Security risks of information and their classification. Industry of cybersecurity. Cybersecurity and control of the Internet. Malicious applications. Measures and means of information protection. Standards and specifications in information security field. The acts of the Republic of Kazakhstan governing legal relations in the sphere of information security. Electronic digital signature. Encryption.	CLO1	1	Lecture information	Feedback (quick survey)
	PRACTICAL LESSON. Use of hardware and software for key generation. Application of the EDS and encoding in case of message exchange by E-mail. Settings of the Firewall program element of the computer network for network traffic	Security risks of information and their classification. Measures and means of information protection. Antivirus software. Archiving utility.	CLO3	3	Work in pairs, computer based teaching	individual task, oral survey

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	monitoring and filtering. Working with the various					
	antivirus programs.					
	SIWTConsultation on the implementation of an individual task 8 SIW.Comparative analysis of antivirus means of information protection.	Development of presentation and web site with information base about anti-virus programs	CLO4 CLO7	2/4	individual task	compiling the glossary for preparation crossword
9	PRACTICAL LESSON. Data acquisition from the server. Working with WordPress and Joomla web content management systems. Development a website design using Photoshop multifunctional graphic editor and CSS style sheet language. Using of the previously developed MySQL database for the work of the website.	Development a website design using Photoshop multifunctional graphic editor and CSS style sheet language	CLO2 CLO3	2	work in pairs, tasks	individual task, oral survey
	SIWTConsultation on the implementation of an individual task 9 SIW.Information search in a specialty profile on the Internet, use of cloud services for storage and data processing. Stage 1	Information search in a specialty profile on the Internet, use of cloud services for storage and data processing.	CLO4	2/3	individual task	Logical circuits on this topic
10	LECTURE. Internet technology. Cloud and mobile technology	Basic Internet concepts. The Uniform Resource Identifier (URI), its assignment and components. DNS service. Web technologies: HTTP, DHTML, CSS, and JavaScript. E-mail. Message format. SMTP, POP3, IMAP protocols. 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	CLO 1	1	Lecture information	Feedback (quick survey)

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		modes associated with file storage, sharing and processing. Use of mobile technologies for receiving an information access. GPS navigators. GSM a signalling.				
	PRACTICAL LESSON. 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. GSM a signaling.	Internet technologies. History of the Internet development. Basic Internet concepts. Cloud technologies. Efficiency of cloud technologies application. Working with mobile applications. Internet technologies. History of the Internet development. Basic Internet concepts. Cloud technologies. Efficiency of cloud technologies application. Working with mobile applications.	CLO3	3	Computer based teaching	individual task, oral survey
	SIWTConsultation on the implementation of an individual task 10 SIW.Information search in a specialty profile on the Internet, use of cloud services for storage and data processing. Stage 2	Information search in a specialty profile on the Internet, use of cloud services for storage and data processing.	CLO4 CLO8	2/3	individual task	compiling the glossary preparation crossword
11	LECTURE. Multimedia technology. Smart technology	Representation text, audio, video and graphical information in a digital format. Basic technologies for compression of information. 3-D representations of the virtual world and animation. Instruments of development of multimedia applications. Use of multimedia technologies for planning, descriptions of business processes and their visualization.	CLO1	1	Lecture information	Feedback (quick survey)
	PRACTICAL LESSON. Creation of video files with use of programs: HyperCam, Adobe Premiere Pro, Windows Movie Maker, etc.	Creating of video files by means of Windows Movie Maker. Use of multimedia technologies for planning, descriptions of business processes and their visualization.	CLO2	3	computer based teaching	creating of video
	SIWTConsultation on the implementation of an individual task 11 SIW.Creation of an emblem, the video and other materials on a specialty profile means of	Creation of an emblem, the video and other materials on a specialty profile means of multimedia technologies.	CLO4 CLO5	2/3	individual task	creating of video, preparation crossword

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	multimedia technologies. Stage 1.					
12	Operation with Smart- applications: Smart TV, Smart Hub, etc.	Creating of video files by means of Windows Movie Maker. Use of multimedia technologies for planning, descriptions of business processes and their visualization.	CLO2 CLO3	2	seminar	individual task, oral survey
	SIWT Consultation on the implementation of an individual task 12 SIW. Creation of an emblem, the video and other materials on a specialty profile means of multimedia technologies. Stage 2.	Creation of an emblem, the video and other materials on a specialty profile means of multimedia technologies.	CLO4 CLO5	2/3	individual task	creating of an emblem, compiling the glossary
13	LECTURE. E-technology. Electronic business. Electronic training. Electronic government	Electronic business: Main models of electronic business. Information infrastructure of electronic business. Legal regulation in electronic business. Electronic training: architecture, structure and platforms. Electronic textbooks. Electronic government: concept, architecture, services. Formats of implementation of the electronic government in developed countries.	CLO 1	1	Lecture information	Feedback (quick survey)
	PRACTICAL LESSON. Operation with services on the website of the electronic government http://egov.kz/cms/ru/gove rnment-service s/for_citizen: registration of requests, obtaining counterparts of documents, etc.	Electronic government: concept, architecture, services. Formats of implementation of the electronic government in developed countries. "Infrastructure of e-government. E-services in the Healthcare."	CLO3	3	computer based teaching	individual task, oral survey
	SIWT Consultation on the implementation of an individual task 13 SIW. Presentation and protection of the main results of design activity in the specialty. Stage 1,2.	Presentation and protection of the main results of design activity in the specialty.	CLO4 CLO5	2/3	individual task	developme nt of graphic objects on medicine
14	LECTURE. Information technologies in the professional sphere. Industrial ICT. Prospects of development of ICT	The software for the solution of tasks of the specialized professional sphere. Modern IT trends in the professional sphere: medicine, power, etc. Use of search engines and electronic resources in the	CLO 1	1	Lecture information	Feedback (quick survey)

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				professiona	al purposes. Safety					
				and comm	inication					
				technologie	es. Prospects of					
				developme	nt in the sphere of the					
				IT market:	development of the					
				free softwa	re. Forming of an					
				ecosystem	of IT of					
				entreprenet	urship and support					
				Programs of	of acceleration and					
				incubation.	Development of					
				necessary i	nfrastructure of					
				electronic p	payments and					
				logistics. P	rospects of					
	DI		CCON	developme	nt of E-technologies		2			1
		RACTICAL LE	SSON.	Developme	ent of structure and	CLO2	3	comp	uter	individual
	ar	nd the maintena	nce of a	the enviror	ment of remote			teach	ing	oral survey
	le	esson in the envi	ronment	learning: N	Ioodle, eDX, etc.			touon		orur survey
	of	f remote learnin	g:	C						
	Μ	loodle, eDX, etc	2.							
	SI	W. Reception o	f 2				2/3			Testing
	boundary control 2		9						MCQ	
	bo	oundary control	2	C						
15	PF	RACTICAL LE	SSON.	Installation	and use of	CLO2	2	comp	uter	individual
	In	stallation and us	se of	application	programs in the	CLO3		based		task, oral
	ap	plication progra	ams in the	e professiona	al sphere.			teach	ing,	survey
	pr W	ofessional spher	re.	Introductio	n to STATISTICA					
	en	vironment for s	cientific	appearance	and working with					
	an	id technical com	puting.	charts in ST	ΓATISTICA 10.					
	W	orking with the	Matlab							
	to	olboxes for app	lied							
	pr	oblem solving.								
	SI	WT Consultatio	on on the	Feedback f	rom students about	CLO4	2/3			creating of
	im	plementation of	f an	the results	of learning outcomes.	CLO5	2,3			MCQ
	in	dividual task 15			C C			1ndivi	dual	
	SIW. Defense of the						lask			
independent study of										
Students. Preparation and conduct of interim certification			cation		15					
9.	•	Training Me	ethods ar	nd Control For	rms		15			
9.1	lec	ctures		Lecture inform	nation (feedback quick	survey)				
9.2	Pra	actical lessons		Practical work	, oral survey, solve pro	oblems				
9.3	SF	W / SIWT		individual task	x, logical flowchart, scr	reen recor	ding vid	eo, proj	ject, pres	sentation
9.4	MI	Id-term examina	ation	Testing (MCQ	!)					
10	.1.	Criteria for	evaluati	ng the learning	g outcomes of a subject	ct				
10.		Name of	- auau	-5 ene rear mili	s outcomes of a subjet					
JNº LO		learning	Dis	satisfying	Satisfying		Good		E	xcellent

outcomes

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LO1	Demonstrates	1) Partly acquired	1) Acquired basic	1) Acquired basic	1) Acquired basic
LOI	knowledge and	hasic terms of ICT.	terms of ICT.	terms of ICT.	and extended terms
	nercention	2) Partly knows the	2) Partly knows the	2) Partly knows the	of ICT.
	torms related	z) I artly knows the	z) I artly knows the	2) I arriy knows the	2)Knowe the main
	to information	aspects of developed	aspects of developed	role of ICT in the	2)Knows the main
	ord	aspects of developed	aspects of developed	lote of ICT in the	role of ICT in the
		society;	2) Dentles defines the	key aspects of	
	communicatio	3) Does not define	3) Partly defines the	developed society;	key aspects of
	n technologies,	the characteristics of	characteristics of	3) Defines the	developed society;
	communicatio	modern personal	modern personal	characteristics of	3) Defines the
	n skills,	computer;	computer;	modern personal	characteristics of
	suitable for an	4) Does not orient in	4) Partly orients in	computer;	modern personal
	effective data	information recycle,	information recycle,	4) Orients in	computer;
	exchange.	important in solving	important in solving	information recycle,	4) Orients in
		tasks (massive	tasks (massive	important in solving	information recycle,
		informa-tion tools,	information tools,	tasks (massive	important in solving
		databa-ses,	databases, informa-	information tools,	tasks (massive
		information and	tion and communi-	databases, informa-	information tools,
		communication	cation systems,	tion and communi-	databases, informa-
		systems, Internet	Internet dictionary-	cation systems,	tion and communi-
		dictionaries, glossa-	es, glossaries	Internet dictionary-	cation systems,
		ries encyclopedia	encyclopedia and	es, glossaries	Internet dictionary-
		and etc.);	etc.);	encyclopedia and	es, glossaries
		5) Does not know	5) Partly knows	etc.):	encyclopedia and
		about following	about following	5) Partly knows	etc.):
		safety requirements	safety requirements	about following	5) Knows about
		and hygiene during	and hygiene during	safety requirements	following safety
		the work with	the work with	and hygiene during	requirements and
		computers.	computers.	the work with	hygiene during the
		• o inp ators.	• o mp arens.	computers	work with computer
LO2	Selects and	1) Poorly classifies	1) Partly classifies	1) Can classify the	1) classifies the
202	classifies basic	the functional	the functional	functional circuits of	functional circuits of
	extra	circuits of the	circuits of the		
				the computer and	the computer and
	additional	computer and their	computer and their	the computer and their devices.	the computer and their devices:
	additional devices and	computer and their devices:	computer and their devices: 2) Partly	the computer and their devices; 2) Can compare the	the computer and their devices; 2) Can compare the
	additional devices and	computer and their devices;	computer and their devices; 2) Partly compares the sizes	the computer and their devices; 2) Can compare the sizes of files of	the computer and their devices; 2) Can compare the sizes of files of
	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of	computer and their devices; 2) Partly compares the sizes of files of different	the computer and their devices; 2) Can compare the sizes of files of different formats that	the computer and their devices; 2) Can compare the sizes of files of different formats
	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different	computer and their devices; 2) Partly compares the sizes of files of different formats that store the	the computer and their devices; 2) Can compare the sizes of files of different formats that	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same
	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information
	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the same information	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information 3) Poorly avaluates	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates
	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the same information 3) Poorly avaluates	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information 3) Poorly evaluates information	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information
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	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the same information 3) Poorly evaluates information, including informa- tion received from	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information 3) Poorly evaluates information, including information received from the media; does	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media;
	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the same information 3) Poorly evaluates information, including informa- tion received from the media; does not	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information 3) Poorly evaluates information, including information received from the media; does not know how to	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how
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	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the same information 3) Poorly evaluates information, including informa- tion received from the media; does not know how to distinguish correct argumentation from	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information 3) Poorly evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect;	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect;	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from
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	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the same information 3) Poorly evaluates information, including informa- tion received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information 3) Poorly evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies
	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the same information 3) Poorly evaluates information, including informa- tion received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information 3) Poorly evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks
	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the same information 3) Poorly evaluates information, including informa- tion received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information 3) Poorly evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the advantages of	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the advantages of	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the
	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the same information 3) Poorly evaluates information, including informa- tion received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the advantages of	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information 3) Poorly evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the advantages of wireless	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the advantages of wireless	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the advantages of
	additional devices and software	computer and their devices; 2) Finds difficult to compare the sizes of files of different formats that store the same information 3) Poorly evaluates information, including informa- tion received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the advantages of wireless	computer and their devices; 2) Partly compares the sizes of files of different formats that store the same information 3) Poorly evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the advantages of wireless communication	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the advantages of wireless communication	the computer and their devices; 2) Can compare the sizes of files of different formats that store the same information 3) Evaluates information, including information received from the media; does not know how to distinguish correct argumentation from incorrect; 4) classifies computer networks and explains the advantages of wireless

OŃTÚSTIK-QAZAQSTAN	SOUTH KAZAKHSTAN	
MEDISINA	SKMA MEDICAL	
академиазт «Оңтүстік Қазақстан медицина академиясы» АҚ	АО «Южно-Казахстанская ме	едицинская академия»
Department of "Medical Biophysics and Info	044-35/09 ( )	
Syllabus on the subject "Information and comr	11 page out of 16	

		5) selects various	data formats for	data formats for	5) selects various
		data formats for	solving problems in	solving problems in	data formats for
		solving problems in	spreadsheets	spreadsheets	solving problems in
		solving problems in	spreadsheets	spreadsneets	solving problems in
LO2	A	1) Dertieller	1) II Internet	1) II Index and .	1) Lines Internet
LO3	Applies	1) Partially uses	1) Uses Internet	1) Uses Internet	1) Uses Internet
	methods and	Internet resources,	resources, cloud and	resources, cloud and	resources, cloud and
	information	cloud and mobile	mobile services for	mobile services for	mobile services for
	and	services for the	the search, storage,	the search, storage,	the search, storage,
	communicatio	search, storage,	processing,	processing,	processing,
	n technology	processing,	protection and	protection and	protection and
	awareness on	protection and	dissemination of	dissemination of	dissemination of
	medical	dissemination of	information	information	information
	practice	information	2) Partially uses the	2) Uses the database	2) Uses the database
	•	2) cannot use the	database in practice;	in practice;	in practice;
		database in practice:	3) Cannot test the	3) Can test the used	3) Can test the used
		3)Cannot test the	used hardware and	hardware and	hardware and
		used hardware and	software:	software:	software.
		software:	4) Finds difficult to	4) Uses text editors	4) Uses text editors
		4) Finds difficult to	use text editors to	to create and design	to create and design
		+) Thus difficult to	areate and design	to create and design	to create and design
		areate and design	tavt documents	(formatting serving	(formatting saving
		tent de sum ente	(formotting, conting	(Iormatting, saving,	(IOIIIIattilig, Saving,
		text documents	(Iormatting, saving,	copying fragments,	copying fragments,
		(formatting, saving,	copying fragments,	etc.);	etc.);
		copying fragments,	etc.);	5) Partially applies	5) Applies the
		etc.);	5) hesitantly applies	the acquired skills:	acquired skills: to
		5) does not know	the acquired skills:	to plot the functions	plot the functions
		how to apply the	to plot the functions	specified in the table	specified in the table
		acquired skills: to	specified in the table	and create diagrams	and create diagrams
		plot the functions	and create diagrams	in the	in the
		specified in the table	in the spreadsheet;	spreadsheet;	spreadsheet;
		and create diagrams			
		in the			
		spreadsheet.			
LO4	Uses varieties	1) does not use	1) Partly uses	1) Uses modern	1) Uses modern
	of information	modern software.	modern software.	software, does not	software, does not
	and	does not analyze	does not analyze	analyze medical data	analyze medical data
	communicatio	medical data using	medical data using	using various special	using various special
	n technology	various special	various special	software and does	software and does
	in personal	software and does	software and does	not interpret the	not interpret the
	nerformance.	not interpret the	not interpret the	results.	results.
	internet	results:	regulte.	2) Uses the	2) Uses the
	aouroog aloud	2) door not use the	2) Dorthy uses the	2) Uses the	2) Uses the
	sources, croud	2) does not use the	2) Faitry uses the		
	and mobile	information	information	resources of the	resources of the
	services of	resources of the	resources of the	society and	society and
	searching,	society and	society and	electronic	electronic
	storing,	electronic	electronic	means of	means of
	recycling,	means of	means of	communication in	communication in
	protecting and	communication in	communication in	educational and	educational and
	sharing	educational and	educational and	practical activities;	practical activities;
	information.	practical activities;	practical activities;	3) uses presentation	3) uses presentation
		3) does not use	3) Partly uses	graphics tools when	graphics tools when
		presentation	presentation	preparing and	preparing and
		graphics tools when	graphics tools when	conducting oral	conducting oral
		preparing and	preparing and	materials	materials

Department of "Medical Biophysics and Information Technology"     044-35.00 ( ) 12 page out of 16       Syllabus on the subject "Information and communication technology"     4) creates cloud data stores     4) creates cloud data stores     4) creates cloud data stores     4) creates cloud data stores     5) Uses stortware tools designed to work with this type of information and is guided by their compliance with the task     5) Uses stortware tools designed to work with this type of information and is guided by their compliance with the task     5) Uses stortware tools designed to work with this type of information and is guided by their compliance with the task     5 Uses stortware tools designed to work with this type of information and is guided by their     5 Uses stortware tools designed to work with this type of information and is guided by their     5 Uses stortware tools designed to work with their type of information and is guided by their     5 Uses stortware tools designed to work with their type of information and is guided by their     5 Uses stortware tools designed to work with their stortware     5 Uses stortware tools designed to work with their stortware       10.     Crelex list for practical tesson     10-10     10-8     5-5     < 5       11.     Knowledge of basic terms and definitions on the topic under consideration with the future profession, conducts specific 10-10     10-10     5-5     5-3     < 3       12.     Larks to additional literary sources     10-5     5-2     5-2     <		ONTUSTIK-OAZAOSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АК									
Syllabus on the subject "Information and communication technology"12 page out of 16Syllabus on the subject "Information and communication technology"12 page out of 16and the subject "Information and is close not know how to use software tools designed to work with this type of information and is guided by their compliance with the task4) creates cloud data stores tools designed to work with this type of information and is guided by their compliance with the task4) creates cloud data stores tools designed to work with this type of information and is guided by their compliance with the task5) Lises software tools designed to work with this type of information and is guided by their compliance with the task5) Lises software tools designed to work with this type of information and is guided by their compliance with the task5) Lises software tools designed to work with this type of information and is guided by their compliance with the task5) Lises software tools designed to work with this type of information and is guided by their compliance with the task5) Lises software tools designed to work with this type of information and is guided by their consideration with the future profession, conducts specific10-1010-85.5< 5		Department of "Medical Biophysics and Information Technology"							044-35/09 ( )		
Image: solution of the set of the	Syllabus on the subject "Information and communication technology"							12 page out of 16			
Image: book book book book book book book boo	conducting oral materialsconducting oral materials4) does not create cloud data stores4) hardly creates cloud data stores				4) creates cloud data4) creates cloudstoresstores5) Partly uses5) Uses softwarecontractiontoolo design			es cloud data software signed to			
Image: Information and is compliance with the compliance with the compliance with the tasktasktasktask10.2Check list for practical lessonNeCriteria for evaluationEveloce in the compliance with the taskNeCriteria for evaluationSubstrate taskImage: Information and is compliance with the taskSubstrate taskNeCriteria for evaluationSubstrate taskImage: Information and is compliance with the taskSubstrate taskImage: Information and is compliance with the taskSubstrate taskImage: Information and is compliance with the furture profession, conducts specific complemeComplemeImage: Information InformationComplemeSubstrate taskImage: Information InformationComplemeSubstrate taskImage: Information Information InformationComplemeSubstrate taskImage: Information			5) does not know how to use software tools designed to work with this type of	5) does not know how to use softwar tools designed to work with this typ of information and	re e l is	designe with thi informa guided complia	d to w s type tion a by the ince w	vork of nd is ir vith th	work w of infor guided complia e task	ith this type mation and is by their ance with the	
10.2 Check list for practical lesson       Ne     Criteria for evaluation     satisfacto ry     satisfacto ory       Ne     Criteria for evaluation     satisfacto ry     satisfacto ory       1     Oral survey     30-25     25-15     15-10     <10			information and is guided by their compliance with the task	guided by their compliance with the task	ne	task					
NeCriteria for evaluationtevelNeCriteria for evaluationassalisatedsatisfactousatisfact1Oral survey30-2525-1515-10<10	10.	.2 Check list fo	or practical lesson								
Neexcelentgodsatisfactounsatisfacto1Oral survey30-2525-1515-10<10	20		Criteria for evaluation	n				L	evel		
1Oral survey30-2525-1515-10<101.1Knowledge of basic terms and definitions on the topic under consideration10-1010-85-5< 5	N⁰				ex	celent	go	od	satisfacto	unsatisfact	
I.1Knowledge of basic terms and definitions on the topic under consideration10-1010-85-5< 5The ability to determine the relationship of the topic under consideration with the future profession, conducts specific examples10-105-55-3< 3	1	Oral survey			3	30-25	25-	15	15-10	< 10	
The ability to determine the relationship of the topic under consideration with the future profession, conducts specific camples10-105-55-3< 31.3Links to additional literary sources10-55-25-2<2	1.1	Knowledge of b under consideration	asic terms and definit	ions on the topic	1	10-10	10	-8	5-5	< 5	
1.3   Links to additional literary sources   10-5   5-2   5-2   <2	1.2	consideration wit	h the future profession	, conducts specific	1	10-10 5-5		5-3	< 3		
2     Solve problems     70-60     60-50     50-40     < 40       2.1     Unit of measurement of information     20-15     20-15     20-10     < 20	1.3	Links to additiona	al literary sources			10-5	5-	2	5-2	< 2	
2.1Unit of measurement of information20-1520-1520-10< 202.2Transfer numbers from one system to another $30-25$ $20-18$ $20-15$ <10	2	Solve problems	÷		7	70-60	60-50		50-40	< 40	
2.2Transfer numbers from one system to another $30-25$ $20-18$ $20-15$ < 102.3Be able to use special software for solving problems $20-20$ $20-17$ $10-5$ < 10	2.1	Unit of measurem	ent of information		2	20-15	20-	15	20-10	< 20	
2.3   Be able to use special software for solving problems   20-20   20-17   10-5   <10	2.2	Transfer numbers	from one system to and	other	3	30-25	20-18		20-15	< 10	
3Individual task70-6060-50 $30-40$ $< 40$ 3.1Execution required tasks $20-15$ $20-15$ $20-10$ $< 20$ 3.2Completing additional tasks $30-25$ $20-18$ $20-15$ $< 10$ 3.3Attraction of information from additional sources $20-20$ $20-17$ $10-5$ $< 10$ Check list for SIWminmaxcreating flowcharts15 $30$ creating flowcharts15 $30$ creating database $25$ $50$ compiling the glossary (practical class themes 1-3) $5$ $10$ for preparation crossword (practical class themes 1-3) $5$ $10$ for anion $15$ $30$ creating presentation $15$ $30$ creating of MCQs $25$ $50$ compiling the glossary (practical class themes 4-6) $5$ $10$ for yet paration crossword (practical class themes 4-6) $5$ $10$ for anion $5$ $10$ for preparation crossword (practical class themes No 7,8,9,10) $15$ $30$ designing websites $25$ $50$ compiling the glossary (practical class themes 7-10) $5$ $10$	2.3	Be able to use spe	cial software for solvin	g problems	2	20-20	20-17		10-5	< 10	
3.1Execution required tasks $20-13$ $20-13$ $20-13$ $20-10$ $< 20$ 3.2Completing additional tasks $30-25$ $20-18$ $20-15$ $< 10$ 3.3Attraction of information from additional sources $20-20$ $20-17$ $10-5$ $< 10$ Check list for SIWSIW Iminmaxcreating flowcharts1530creating database2550completing database2550completing the glossary (practical class themes 1-3)510for preparation crossword (practical class themes 1-3)510for all 50100SIW Iminmaxcreating presentation1530creating presentation1530creating of MCQs2550compiling the glossary (practical class themes 4-6)510for all 50100SIW IIIminmaxLogical flowchart on this topic(practical class themes N27,8,9,10)1530designing websites2550compiling the glossary (practical class themes 7-10)510for preparation crossword (practical class themes 7-10)510	<b>3</b>	Individual task	d taaka			/ <b>U-6U</b>	<b>60</b> - 20	- <b>50</b> 15	<b>50-40</b>	< 40	
3.2Completing additional tasks30-2520-1620-17(103.3Attraction of information from additional sources $20-20$ $20-17$ $10-5$ <10	3.1	Completing addit	ional tasks		4	20-13 20-25	20-	13	20-10	< 20	
Check list for SIWSIW Iminmaxcreating flowcharts1530creating database2550compiling the glossary (practical class themes 1-3)510for preparation crossword (practical class themes 1-3)510Total50IDOTotal50IDOSIW IICheck list for SIWTotal50IDOTotal50IDOSIW IICheck list for SIWTotal50IDOTotal50IDOSIW IITotal50IDOSIW IITotal50IDOTotal50IDOSIW IILogical flowchart on this topic(practical class themes №7,8,9,10)15SIOCompiling the glossary (practical class themes %7,8,9,10)15SIOCompiling the glossary (practical class themes 7-10)SIOCompiling the glossary (practical class themes 7-10)SIOCompiling the glossary (practical class themes 7-10)SIOCompiling the glossa	33	Attraction of info	rmation from additional	sources	2	20-20	20-18		10-5	< 10	
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for preparation crossword (practical class themes 7-10) 5 10	com	niling the glossary (	practical class themes 7	/-10)					5	10	
	for p	reparation crosswo	rd (practical class theme	es 7-10)					5	10	

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To	tal	50	100
SIW IV		min	max
creating of video		15	30
creating of an emblem		25	50
compiling the glossary (practical class themes 11-12)		5	10
for preparation crossword (practical class themes 11-12)		5	10
То	tal	50	100
SIW V		min	max
Development of graphic objects on medicine(practical class themes 13-15)		30	70
creating of MCQs (practical class themes 13-15)		20	30
To	tal	50	100

Grade by letter system	Numeric equivalent of points	Percentage	Grade by traditional system
Α	4,0	95-100	Excellent
A -	3,67	90-94	
B +	3,33	85-89	Good
В	3,0	80-84	
B -	2,67	75-79	
C +	2,33	70-74	
С	2,0	65-69	Satisfactorily
C -	1,67	60-64	
D+	1,33	55-59	
D-	1,0	50-54	
FX	0,5	25-49	Unsatisfactory
F	0	0-24	
11 T			

#### 11. Learning resources

databases, animation simulators, professional blogs, websites, other electronic reference materials (for example: video, audio, digests)

Information system «Medicine» https://online.zakon.kz/Medicine/

### **Electronic textbooks**

1. Сапрыгина М.Б. Information and communication technology [Электронный ресурс]: учебное пособие / М.Б. Сапрыгина, К. Кудабаев. - Электрон. текстовые дан. (20.2Мб). - Алматы: [s.n.], 2017

- 2. АЕ.Жатканбаева, Информационное право (общая часть) [Текст] : учеб. пособие; КазНУ им. аль-Фараби. -Алматы: Қазақ ун-ті, 2015. - 147c http://elib.kaznu.kz
- Информатика и информационные технологии в профессиональной деятельности: учебник/ А.А. Бабкин, С.В. Видов, С.А. Грязнов и др.; под ред.: В.П. Корячко, М.И. Купцов; ФСИН, Академия права и управления.- Рязань: Академия ФСИН России, 2016.- 354 с. http://elib.kaznu.kz
- 4. Қ.Ж. Құдабаев. «Информатика» Оқу құралы. Алматы, «Эве-ро», 2020ж. 216б. https://elib.kz/ru/search/read\_book/328/
- 5. Ricklefs V.P. Basics of Informatics: Educational manual for medical specialties of higher educational.– Almaty: Publishing house «Эверо», 2020.– 242p https://elib.kz/ru/search/read\_book/363/
- 6. К.Ж.Кудабаев, З.С.Халметов, А.А.Мауленова, З.М. Абдримова, А.С.Байдилдаева. Учебно-методическое пособие «Сборник тестовых заданий по информатике». Алматы, «Эверо», 2020г., 150 с. https://elib.kz/ru/search/read\_book/2948/
- 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/

## Laboratory physical resources

Computers and other electronical devices

#### Special programs

1 MS office (Word. Excel. Access. Power point )

ойти́зтік-оагаозтан МЕДІЗІНА АКАДЕМІАSY «Оңтүстік Қазақстан медицина академиясы» АҚ	едицинская академия»
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2	Adobe Photoshop,	Bandicam,	Movie	maker,	video pad	etc.
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#### 3 Moodle, Courser a, STATISTICA

## Main Literature

1. Нурпеисова Т. Б. Информационно-коммуникационные технологии: учеб. пособие.-2017

- 2. Хакимова Т. Практикум по курсу "Основы информатики": уч. пособие. Алматы : "NURPRESS".-2013
- 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.Methods of teaching computer science [Teкст]: Textbook / E. Bidaibekov [and etc.].- Almaty:[s.n.], 2016.
- 6.Nurpeisova T.B. Information and Communication Technologies: Text-book / T.B. Nurpeisova, I.N. Kaidash.-Almaty: Bastau, 2017.- 480 p.
- 7.Manapov N.T. Computer chemistry [Tekct] : textbook/ N.T. Manapov.- Almaty: Association of higher educational institutions of Kazakhstan, 2016. 312 p

## Additional Literature

 Койбағарова Т.Қ. Информатика: оқу-әдістемелік құралы - Түзет., толықт. 2-бас. - Алматы: Эверо.-2014
Информатикадан тест тапсырмаларының жинағы: оқу-әдістемелік құрал / Қ. Ж. Құдабаев [т.б.]. - Алматы: Эверо.-2014

Electronic database				
№	Title	Link		
1	SKMA Repository	http://lib.ukma.kz/repository/		
2	Republican Interuniversity Electronic Library	http://rmebrk.kz/		
3	Student Advisor	http://www.studmedlib.ru/		
4	Open University of Kazakhstan	https://openu.kz/kz		
5	Law (access in the reference and information sector)	https://zan.kz/ru		
7	Scientific Electronic Library	https://elibrary.ru/		
8	Open Library	https:// kitap.kz/		
9	Thomson Reuters	www.webofknowledge.com		
10	ScienceDirect	http://www.sciencedirect.com		
11	Scopus	https://www.scopus.com/		
12	Digital library «Aknurpress»	https://aknurpress.kz/login		
10	Course policy			

12. Course policy

Requirements for studying this course:

1. Do not miss classes without reason;

- 2. Do not be late for classes;
- 3. Come to classes in uniform;
- 4. To be active during the practical classes;
- 5. To prepare for lessons;
- 6. Take the students independent work and prepare it timely;
- 7. Not to do other things during lessons;
- 8. To be tolerant, polite and friendly to students and teachers;
- 9. Be careful to the department equipment and furniture.

10. The midterm control of students' knowledge is carried out twice during the semester on the 7th and 14th weeks of theoretical training with the setting of the results of midterm controls in the educational journal of progress and the electronic journal, taking into account penalty points for missing lectures (missed lectures in the form of penalty points are subtracted from the assessments of the midterm control). The penalty point for missing 1 lecture is 1.0 point. A student who does not show up for midterm control without an important reason is not allowed to take the course exam. The results of midterm control are sent to the dean's office in the form of a report at the end of the control week.

11. SIW mark is given at the SIWT lesson, according to the schedule, in the educational register and electronic register also, taking into account the penalty points for missing SIWT lessons. The penalty point for missing 1 SIWT lesson is 2.0 points.

12. Digital educational resources and digital content are placed by the teacher in the "Tasks" module for the attached

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course exam. The results of midterm control are sent to the dean's office in the form of a report at the end of the control week.

SIW mark is given at the SIWT lesson, according to the schedule, in the educational register and electronic register also, taking into account the penalty points for missing SIWT lessons. The penalty point for missing 1 SIWT lesson is 2.0 points.
Digital educational resources and digital content are placed by the teacher in the "Tasks" module for the attached

academic group (stream). All types of training videos are linked to the department's cloud storage. 13. Module "Tasks" AIS Platonus is the main platform for distance learning and placement of all training and

teaching materials.

13.	Academic policy based on the moral and ethical values of the academy			
	https://ukma.kz/			
	Academic policy of J	SC SKMA. P.4 Studen	t's Honor Code http://surl.li/eroik	
	The policy of grading the disciplineDiscipline Grading PolicyStudent's final mark (FM) is given at the end of			
	the course, and calculate as a sum of the admission rating mark (ARM) and the final control mark (FCM) and			
	is given according to	the point-rating letter s	system.	
	0		FM=ARM+FCM	to Least (CCM)
	Admission rating ma	rk (ARM) is equal to	60 points or 60% and includes: the	current control mark (CCM)
	and midterm control 1	mark (MCM).		
	The current control m	nark (CCM) is the average	age score for practical lessons and	SIW.
	The midterm control	mark (MCM) is the av	erage score of the two midterm cont	rols.
	The admission rating	mark (60 points) is cal	lculated via the formula:	
		MCM	average X 0.2+CCM average X 0.4	40 points or 40% of the total
	Final control (FC) is	carried out in the form	n of testing and the student can get	40 points of 40% of the total
	mark.			
	When testing, the stu	dent is asked 50 questi	Ons.	swered 45 questions out of 50
	Calculation of final control is carried out as follows: If the student correctly answered 45 questions out of 50,			
	it will be 90%.			
	$90 \times 0.4 = 36$ points.			
	The final mark is calculated if the student has positive marks both in the autilission rating (ARC) = 50 points of $20\%$ or more			
	30% or more, and in the final control (FC) = 20 points or 20% of more. $x = 0.2 \pm CCM$ $x = 0.4 \pm CCM$ $x = 0.4 \pm CCM$ $x = 0.4 \pm CCM$			
	Ine	nnal grade (100 points	average A 0.2 Court average a	trols (MK1, MK2, CC average) is
	A student who has re	am unsatistacio	if y mark for one of the types of the	
	not allowed to the ex	htracted from the aver	age score of the current control.	
11	Penalty points are su	ion	age score of the carten company	
14.	Approval date	Protocol No.	Head of the Department	Signature
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	Revision date Protocol No. Chairman of the EPC Signature			
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#### Φ-044/270/01-2022

# Protocol of approval of the subject "ICT" with other subjects for the 2023-2024 academic year

Coordination disciplines	Proposals for changes in the proportions of the material, the order of presentation, etc.	Protocol numbers and meeting dates of the corresponding departments
1	2	3
1. Basics of Evidence Nursing	The ICT course deals with the processing of numerical data and their visualization through the use of Excel spreadsheets, Statistica. The content and sequence of presentation of the material on the ICT discipline is considered appropriate	Reviewed at the meeting of the Department of Medical Biophysics and IT Protocol $N_{}$ // " $33$ " $06$ 202 $34$ y. Head of the Department to Ph.D., ass. professor A.A. Seidahmetova

Head of the Department Ph.D ass. professor

A

A.A. Seidahmetova