THE MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN
Abai University
SYLLABUS

1. Information about the discipline

Name of the discipline: Information and communication technologies
Amount of credits: 5
Course, semester: 1, 2
Code and name of the Educational program:
6B01602 - History - Religious Studies, 6B01603 - Digital History, 6B01604 - History Foundations of Law, 6B03103 - Sociology, 6B03104 - Political Science, 6B03106 - Cultural Studies and Cultural Policy, 6B01601 – History, 6B01606 - History-geography

Department: Informatics and informatization of education
Degree, title, position, name of the teacher: Professor, Candidate of Pedagogical Sciences Khalikova Gulira
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2. Control form: test

Criteria-based assessment:

According to the Academic Politics of KazNPU, deadlines for homework assignments and SIW can be extended in case of extenuating circumstances (illness, emergency, unforeseen circumstances, etc.). Active participation of students: asking constructive questions, taking part in a dialogue and discussions, doing tasks and a feedback are encouraged, taken into account and assessed:

1. Students should prepare for the lesson beforehand in accordance with the schedule and topic. 2.
Homework assignments will be distributed throughout the semester as shown in the course schedule. 3.
Most homework assignments include several questions/tasks.
4. You will use the learning materials during the semester.

・**SIW** should be done within the specified time frame. SIW which are out of time will not be accepted.

Summative assessment:

Final grade is calculated by this formula: (Midterm1 + Midterm2)*0.3 + exam*0.4.

3. Academic presentation of the course

Course type: Compulsory component

The course is aimed to form students' ability to critically evaluate and analyze processes, methods of searching, storing and processing information, methods of collecting and transmitting information through digital technologies.

Main objectives of «Information and communication technologies» are the formation of the following learning outcomes on the Educational Program:

1. to explain a purpose, content and development trends of ICT, justify a choice of the most appropriate technology for solving specific problems;
2. to use information Internet resources, cloud and mobile services for a searching, storage, processing and distribution of information;
3. to apply hardware and software of computer systems and network for data collection, transmission, processing and storage;
4. to develop tools for data analysis and management for various forms of activities;
5. to conduct project activity on the specialty by means of modern ICT.

4. Academic Politics of the course:

Academic behavior rules:

Attendance at classes is mandatory. Being late for the classes is not encouraged. Absence and lateness for classes are estimated as 0 point.

Mandatory observance of the deadlines for completing and delivering assignments (SIW, midterm, control, laboratory assignments, project, etc.), projects, exams. If the deadlines are violated, the task is evaluated taking into account the deduction of penalty points.

Academic values:
Academic honesty and integrity: independence in all assignments; inadmissibility of plagiarism, forgery, the use of cheat sheets, cheating at all stages of knowledge control, deceiving the teacher and disrespectful attitude towards the teacher.
Students with disabilities can receive counseling assistance by **e-mail:** zhami.90@mail.ru

5. Information resources *(including Internet resources)***:**

1. Introduction to Information and Communication Technology in Education. (Moursund). – URL: http://pages.uoregon.edu/moursund/Books/ICT/ICTBook.pdf
2. Basic Concepts of Information and Communication Technology Handbook Authors: Gorana Celebic, Dario Ilija Rendulic. – URL: http://www.itdesk.info/handbook_basic_ict_concepts.pdf 3. Brown G., Watson D. IGCSE Information and Communication Technology. – URL: https://www.gceguide.xyz/files/ebooks/igcse/Information%20and%20Communication%20Technology%20By%20Graham%20Brown%20and%20David%20Watson.pdf

Training literature:

1. Shynybekov D.A., Uskenbayeva R.K., Serbin V.V., Duzbayev N.T., Moldagulova A.N., Duisebekova K.S., Satybaldiyeva R.Z., Hasanova G.I., Urmashev B.A. Information and communication technologies. Textbook: in 2 parts. Part 1, 1st ed. - Almaty: IITU, 2017. - 588 p., ISBN 978-601-7911-04-1 (A textbook in English with the stamp of the Ministry of Education and Science of the Republic of Kazakhstan)
2. Urmashev B.A. Information and communication technology: Textbook / B.A. Urmashev. – Almaty, 2016. - 410 p., ISBN 978-601-7940-02-7 (A textbook in English with the stamp of the Ministry of Education and Science of the Republic of Kazakhstan)
3. G.Brown, Watson D. Information and communication technology. – Cambridge IGCSE. London, 2010.
4. Clowrey P., and Colin Stobart Collins Cambridge IGCSE – Cambridge IGCSE ICT Student Book and CD-ROM, 2015
5. A Dictionary of Computer Science // Oxford University Press, 2016.
6. Kretschmer, T. (2012), Information and Communication Technologies and Productivity Growth: A Survey of the Literature, OECD Digital Economy Papers, No. 195, OECD Publishing. Ch.3,4,5
7. June J. Parsons and Dan Oja, New Perspectives on Computer Concepts 16th Edition - Comprehensive, Thomson Course Technology, a division of Thomson Learning, Inc Cambridge, MA, COPYRIGHT © 2014.
8. Khalikova K. Information and Communication Technologies// Methodical manual/Laboratory sessions: for students of all specialty Higher Professional Education. Workbook. – Almaty: Abay Kazakh National Pedagogical University, 2019. –75 p.
9. E-book on ICT. https://gulira13.wixsite.com/e-book1/lectures

6. Calendar-thematic plan of the course:

Week / date	Title of the topic (lecture, practical lesson, SIWT, SIW)	Total hours	Max score
1	2	3	4
1	Lecture 1. An ICT role in key sectors of development of society. Standards in the field of ICT.	1	1
	Practical lesson 1. Computer devices. Laptop. Benchmarking. Architecture and components of computer systems. The use of computer systems. Representation of data in computer systems.	2	6

2	Lecture 2. Introduction to computer systems. Architecture of computer systems.	1	1
	Practical lesson 2. Determination of properties of an operating system. Operation with files and directories.	2	6
	Lecture 3. Software. Operating systems.	1	1

3	Practical lesson 3. Design and creation of the presentations of lecture material, scientific reports in different online presentation platform	2	6
	SIWT Consultation and accepting SIW SIW 1.Comparison of technical characteristics of computer systems. 2. Creating presentations	**10+5**	**15**
4	Lecture 4. Human-computer interaction.	1	1
	Practical lesson 4. Creation and calculation in the spreadsheet	2	6
5	Lecture 5. Database systems.	1	1
	Practical lesson 5. Processing of numerical information, editing formulas and creation of charts in spreadsheet editors.	2	6
6	Lecture 6. Data analysis. Data management.	1	1
	Practical lesson 6. Work with databases. Development of database structure, creation of tables and queries.	2	6
	SIWT Consultation and accepting SIW SIW 1. Creating charts in a spreadsheet. 2. Nowadays digital competence is very important for everyone and experts should know to use MS Excel functions in the future professional activity. What is your opinion?	**10+5**	**15**
7	Lecture 7. Networks and telecommunications		1
	Practical lesson 7. Creation of a simple network configuration. IP addressing.	2	6
8	Lecture 8. Cybersecurity	1	1
	Practical lesson 8. Create multimedia interactive presentations Powtoon, Canva, Prezi	2	5
	SIWT Consultation and accepting SIW SIW Database modeling with description. IP addressing and wireless technologies.	**10+5**	**15**
	Total Midterm 1		**100**

9	Lecture 9. Internet technologies	1	1
	Practical lesson 9. The creation of a web site based on CMS	2	7
10	Lecture 10. Cloud and mobile technologies	1	1
	Practical lesson 10. Data acquisition from the server. Working with Wix.com. Web content management systems	2	7
11	Lecture 11. Multimedia technologies.	1	1
	Practical lesson 11. Creation of video files with use of programs: Canva and MS Teams, EdPuzzle and etc.	2	7
	SIWT Consultation and accepting SIW SIW 1. Creating an electronic portfolio 2. Powtoon is much more important than Canva for an interactive presentation (Essay)	**10+5**	**15**
12	Lecture 12. Smart technology.	1	1
	Practical lesson 12. Work with cloud services. Introduction to Google services and Microsoft Office Web Apps cloud services	2	7
13	Lecture 13. E-technologies. Electronic business. E-learning. Electronic government.	1	1
	Practical lesson 13. Operation with services on the website of the electronic government http://egov.kz/cms/ru/governmentservices/for_citizen:		7

	registration of requests, obtaining counterparts of documents, etc.		
14	Lecture 14. Operation with Smart-applications: Smart TV, Smart Hub, etc.Information technologies in the professional sphere. Industrial ICT	1	1
	Practical lesson 14. Operation with Smart-applications: Smart TV, Smart Hub, etc. .	2	7
	SIWT Consultation and accepting SIW 1 Using cloud technologies as a storage device is much more important than usage of computer storages. What do you think about it? (Essay). Work with Google Class Room E-government services. 2. Digital signature.	**10+5**	**15**
15	Lecture 15. ICT Development Prospects	1	1

	Practical lesson 15. ICT solutions and services	2	6
	SIWT Consultation and accepting SIW SIW Problems and Prospect of e-technology development. (discuss both sides in Essay).	**10+5**	**15**
	Total Midterm 2		**100**

Teacher _____Khalikova G.Z.

Head of the Department _____Oshanova N.T.

Chairman of the educational and methodological association of the institute
_____Sharmukhanbet S.R.