Department of "Information Technologies"

Course Unit Title	Information Technology (Specialization)
Course Unit Code	UFS-B05
Type of Course Unit	Elective
Level of Course Unit	4th year
National Credits	
Number of ECTS Credits Allocated	3
Theoretical (hours/week)	
Practice (hours/week)	1
Laboratory (hours/week)	1
Year of Study	
Semester when the course unit is delivered	7
Course Coordinator	Hajiyeva Rena Javadkhan
Name of Lecturer(s)	Hajiyeva Rena Javadkhan
Name of Assistant(s)	-
Delivery Method	Face to Face
Language of Instruction	Azerbaijani, English
Prerequisites	-
Recommended Optional Program Components	-

Course description:

To form appropriate knowledge, skills and habits in students, and to ensure their preparation for working with computers.

Course Objectives:
Ensuring the scientific and methodological preparation of future specialists (goals and content of Informatics training, forms of organization of training, methods and tools, modern training technologies), forming in them the relevant knowledge, skills and habits for implementing training, familiarizing them with the accumulated experience in teaching Informatics, and forming the ability to think logically.

Learning Outcomes

At the end of the course the student will be able to		Assessment
1	Formation of ideas about the goals and objectives of computer science as a science, scientific research methods, and its relationship with other sciences	1, 2
2	Formation of ideas about the forms of organizing computer science training	1, 2
3	Formation of ideas about the means of teaching informatics	1, 2
4	Formation of ideas about the principles and teaching methods of computer science training	1, 2

5	Formation of ideas about the goals and objectives of Informatics training for undergraduate students	1, 2
6	Performing practical tasks used in the training of Informatics course for undergraduate students	1, 2
7	Monitoring and investigating the level of implementation of practical tasks;	1, 2

Assessment Methods: 1. Final Exam, 2. Presentation

Course's Contribution to the Program

		CL
1	ability to work with automated and integrated computer technologies, which allows you to effectively solve problems in various fields	5
2	ability to apply ICT (Information and Communication Technology) capabilities in various fields of activity, using knowledge in related sciences, language skills and information technology	5
3	ability to function effectively in a team, the members of which together provide leadership, create a collaborative and inclusive environment, set goals, plan tasks and achieve goals	4
4	ability to use applications and special software packages to manage various technological processes that help increase productivity, improve the quality and safety of technological operations in various industries	5
5	ability to apply computer engineering component design methods in the field of computer engineering and develop new solutions, improving the overall performance and reliability of systems	5
6	ability to use programming languages and software development systems and solve computer engineering problems, create innovative solutions for various applications and devices	5
7	ability to develop tools based on computer graphics, multimedia and virtual reality technologies to create interactive systems and applications in various fields	4
8	ability to develop, test and manage databases, user interfaces and information system modules that help ensure efficient data storage and processing, as well as the integration of various technological solutions to solve practical problems	5
9	ability to recognize ethical and professional responsibilities in engineering situations and to make informed judgments that must take into account the impact of engineering decisions in various fields	4
10	ability to use foreign language skills to obtain the necessary information of a scientific and technical nature. Ability to use a foreign language to prepare presentations and in oral speech	4

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5: Very High)

Course Contents

Week	Chapter	Topics	Exam
1		Application of information technologies in the agricultural sector and the tasks they pose. Development stages of information technologies. Concept of information, properties, forms, units of measurement	

2		Seminar 1.Computer architecture. Assembling and disassembling a computer. Visual introduction to devices	
3		The main components of information technologies. HardWare - technical support. SoftWare - software. BrainWare - instrumental support. Main and peripheral devices of computers	
4		Seminar 2. Practical ways to use the basic capabilities of the Word text editor. Formatting texts. Creating tables	
5		Computer software. Classification of operating systems. Windows operating system, basic parameters. Files and folders. Types of menus and windows of the Windows operating system	
6		Seminar 3. Using the graphic capabilities of Word. Drawing diagrams	
7		Word processors. Word text editor and its main capabilities. Graphic capabilities of Word text editor. Mathematical software packages	
8		Windows operating system menus, windows. Windows Aero interface. Files and folders. Hot keys	
9		Seminar 4. Using and practicing the standard hotkeys of the Windows operating system	
10		Seminar 5. Computer graphics. Color models. Basic capabilities of the Power Point presentation program. Application of the basic capabilities of the Power Point presentation program. Preparation of a presentation describing the life and work of famous people	
11		MS Excel spreadsheet. Cell, block, page. Creating charts. Filter and sort operations. Classification of functions in Excel. Functions of mathematical, statistical, financial, text, logical and other categories	
12		Seminar 6. Practical application of the basic capabilities of the MS Excel spreadsheet	
13		Using database management systems in the agricultural sector. Purpose, main capabilities, objects, data types of Access DBMS	
14		Seminar 7. Classification, architecture, types, topology of computer networks. Structure of the Internet network	
15		Classification, architecture, types, topology of computer networks. Structure of the Internet network	

Recommended Sources

TEXTBOOK(S)

1. Hajiyeva RC Informatics. Collection of lectures, Polygraphic and Publishing Center of the State University of Baku, Baku, 2020, 180 p.
2. Shirokova A. I., Pyshniak M. Informatics. Разработка программ на языке программирования Piton, M., 2020, 144 p.
3. Alizade MN, Orujova TV, Hasanova N.A. Information security. Baku, "MSV Publishing", 2018, 388 p.
4. Informatics for economists. Учебник для бачалериата и специалитета / ed. Poliakov V. P. M.: Yurayt, 2019. 524 c.
5. Lyakhovich V.F., Molodtsov V.A., Ryzhikova N.B. Fundamentals of computer science. — M.: KnoRus, 2016. — 348 c.
6. Makarova N. B. Informatics: Textbook for universities. Publisher: Peter, 2013, 576 c.
7. Informatics and information technologies / ed. Yu.D. Romanova. — M.: Eksmo, 2011. — 544 p.
8. Prosvetov G.I. Data analysis using Excel. Tasks and solutions. — M.: Alfa-Press, 2015. — 160 c

9. Nabiullina S.N. Informatics and ICT. Course lecture. M.: Lan, 2019. 72 p.
10. Gasumova S. E. Social informatics. Textbook and practice for universities. M.: Yurayt, 2019. 284 c.

Assessment

Attendance	10%	At least 75% class attendance is compulsory
Presentation	10%	
Quiz	0%	
Seminars	30%	
Midterm Exam	0%	
Final Exam	50%	
Total	100%	

Assessment Criteria

Final grades are determined according to the Academic Regulations of WCU

Course Policies
- Attendance of the course is mandatory.
- Late assignments will not be accepted unless an agreement is reached with the lecturer.
- Students cannot use calculators during the exam.
- Cheating and plagiarism will not be tolerated. Cheating will be penalized according to the Western Caspian University General Student Discipline Regulations

ECTS allocated based on Student Workload

Total Workload	**90**
Total Workload/30(h)	**90/30**
ECTS Credits of the Course	**3**