Section	Information
1. Program Name	Bachelor's Degree in Information Security
2. Short Description	The Information Security program focuses on protecting data in the digital environment, preventing cyber threats, and building secure information systems. Students gain theoretical and practical preparation in network and system security, cryptography, cybersecurity policies, risk management, and incident analysis. Graduates can work as information security specialists, analysts, system administrators, or consultants in government institutions, private companies, banks, and the telecommunications sector.
3. Program Objectives	• **Fundamental Knowledge** – providing students with theoretical knowledge of information security principles, network and system defense, cryptography, and cybersecurity strategies. • **Practical Skills Development** – training in real-life applications such as detecting and preventing cyberattacks, managing risks, and analyzing incidents. • **Strengthening Analytical and Strategic Thinking** – improving decision-making skills based on security policies and standards, identifying vulnerabilities, and offering innovative solutions. • **Commitment to Professional Ethics** – preparing specialists who adhere to international standards, legislation, and ethical principles in information security. • **Sustainability and Innovation** – introducing modern technologies (artificial intelligence, big data, cloud computing, etc.) to create and apply innovative security solutions.
4. Teaching Process	The teaching process combines lectures, seminars, computer lab sessions, practical projects, and group work. A Blended Learning model is applied, enabling students to use both traditional and online resources to deepen their knowledge. Students work on practical tasks and simulations in areas such as network and system defense, cryptography, risk management, and security policies. This develops their ability to conduct independent research, analyze incidents, design security solutions, and strengthen decision-making skills.
5. Program Courses	The program consists of **240 credits**. Students complete both core and elective courses each year. **Core Courses:** Mathematical Analysis, Fundamentals of Information Security, Basics of Programming, Linear Algebra, Fundamentals of Cybersecurity, Basics of Networks, Discrete Mathematics, Network Security, Operating Systems, Probability Theory, Web Security, Legal

	Aspects of Information and Cybersecurity, Civil Defense, Cloud Security, Information Security Management Systems, Database Security, Fundamentals of Cryptography, Fundamentals of Penetration Testing, Basics of Electronics and IoT Security, Fundamentals of Digital Forensics, Secure Programming, Security of Industrial Control Systems. **Elective Courses:** Algorithm Design and Analysis, Software Engineering, Web Programming, Mobile Application Programming, Business Technical English, Business Technical Russian, Systems Programming, Data Structures and Algorithms, Cloud Technologies, Mobile and Wireless Device Security, Data Mining, Social Network Analysis, Parallel and Distributed Computing, Blockchain Technologies, Human-Computer Interaction, Cyber-Physical Systems, Machine Learning, Neural Networks, E-Commerce System Security, Object-Oriented Programming, Artificial Intelligence, Fuzzy Logic and Decision-Making.
6. Sustainable Development & Social Responsibility	The program integrates the UN Sustainable Development Goals (SDGs). Students engage in projects and research focused on responsible behavior in the digital environment, adherence to ethical principles in cybersecurity, data protection, digital equality, and social justice. This approach prepares graduates not only with professional security knowledge but also as socially responsible, ethical, and sustainability-oriented decision-makers in society and business.
7. Career Opportunities	Graduates can pursue careers in the public and private sectors, local and international companies, banks, telecommunications, energy, and manufacturing enterprises. Career paths include cybersecurity analyst, information security specialist, network and system administrator, risk manager, security consultant, digital forensics specialist, SOC (Security Operations Center) operator, and more. Graduates may also work in research institutes, international organizations, or startup ecosystems to develop and implement security solutions. Professional skills allow them to compete in the global labor market and pursue international certifications such as **CISSP, CEH, CISM, CompTIA Security+**, etc.
8. Further Education	Graduates can continue their studies at the master's and doctoral levels in cybersecurity, cryptography, network and system security, artificial intelligence, data protection, risk management, and the legal and ethical aspects of IT. This provides opportunities for research, international study, and strengthening their competitiveness as highly qualified professionals in the global labor market.

9. Additional Information	• Language of Instruction: Azerbaijani • Duration: 4 years (full-time) • Degree Awarded: Bachelor’s in Information Security