STUDY PROGRAM FORM

1. Title of the study program	Mobile Application Development and Game Design
2. Title of the study program in English	Mobile Application Development
3. Study level	Master's studies
4. Study form(s)	regular studies, block mode study
5. Educational institution	BAKU ENGINEERING UNIVERSITY
6. Study program volume (ECTS credit)	120
7. Nominal duration of study	2 years
8. Study domain	Information technology and systems
9. Study programme group	Information technology and systems
10. Study field	Computer Engineering, Information Technology
11. Study programme code in EHIS	060631, 060632
12. Study programme administrator	Babak Abbasov, Assoc. Prof.
13. Language(s) of instruction	English, Azerbaijani
14. Other languages needed to achieve learning outcomes	English language proficiency at C1 level of the CEFR for English group.
15. First registration of the study programme	Managed by central examination unit
16. Conditions of admission	Bachelor's Degree or equivalent qualification in Computer Engineering, Information Technology or related fields, English skills at level B2, passing the admission exams.
17. Main field(s) of study and their volume (ECTS credit)	Mobile Application Development 120 ECTS
18. Minor field(s) of study, ohter possible specialisations and their volume (ECTS credit)	-
19. Study programme objectives	The curriculum aims to create the conditions for the formation of a true gaming and

	education professionals who know how to integrate educational field, ICT and design knowledge with modern information and communications technology by using innovative educational tools that support learning and creation. The curriculum consists of the following areas: a) Fundamental courses b) Mobile courses c) University-wide courses d) Elective courses Curriculum consists of three integrated areas: pedagogy, creativity and technical knowledge. The curriculum is practice oriented. In ideal after graduation teams will start working as game designers and developers in related fields.
20. Learning outcomes of the study programme	- has knowledge of the fundamentals of intercultural discourse and communication and a close understanding of the theoretical models behind the field of intercultural communication - has knowledge of mobile application development and is able to offer IT solutions - is capable of continuing their studies on doctoral level and/or participate in research activities, to work as a specialist, developer in the field of mobile application development, also on an international level - is able to advise IT professionals creation of mobile applications which will take into account support the designing process of education and entertainment environment - is familiar with mobile application development technical possibilities and general requirements - possesses knowledge in the field of design and technology and knows how to use this knowledge for design, plan and creation of the mobile applications - is competent to analyze his own and others' professional activities, is able to plan further professional development and to continue self-improvement through lifelong learning, to implement effective methods necessary for independent study
21. The title of diploma or academic degree(s)	Master of Science in Information Technology (MSc)
22. Documents issued at graduation	Diploma and Diploma Supplement
23. Structure of the study	Main field of study: Mobile application

programme	development
	University-wide courses 6/6
	Technical Elective Module 9/9
	Fundamental Module 12/12
	Mobile Module 12/12
	Social Elective Module 3/3
	Research Practice 18/18
24. Options to complete the study program	All students must pass fully the module of the university-wide courses, mobile module, fundamental module, elective module, research and practice module.
25. Graduation terms	In order to graduate, the student shall complete the study program in the given volume, which includes passing all compulsory courses and compiling and defending the Master s thesis.
26. Joint curriculum	no
27. Additional information	

STUDY PROGRAMME MODULES,

THEIR OBJECTIVES AND LEARNING OUTCOMES

Title: University-wide courses	**Volume : 18 ECTS**
Objectives	Evaluate own teaching style and integrate it with digital learning pedagogy and cognitive psychology, plan activities that promote higher order thinking skills, identify the unique challenges teaching online presents with regard to time management and working with students virtually.
Learning outcomes	Students will gain insight into the history of the field of psychology, as well as explore current theories and issues in areas such as cognition, motivation, and wellness. The course is designed to synthesize the broad range of knowledge about psychology, to encourage critical thinking, and to convey a multicultural approach that respects human diversity and individual differences.
	This course enables students to discuss about various theoretical pedagogical perspectives and work of top contributors in the field, to get knowledge conditions of human progression, role of education in human progression, to get knowledge about the personality of teacher, conditions of professional and human success, to develop skills in course management, planning, and assessment according the most important pedagogical theories to develop teaching philosophy and begin assembling teaching portfolio.
	Learn a foreign language to enhance technological skills and

	knowledge	
Assessment of the module: Grading is based on exams or assessments taken during the courses.		
Courses		
Course code	Course title	Volume (ECTS)
2	Psychology	2
3	Pedagogy	4
4	Foreign Language	6
Objectives		
Learning outcomes		
Assessment of the module: Grading is based on the exams or assessments taken during the courses.		
Courses		
Course code	Course title	Volume (ECTS)
Technical elective module (min-18 ECTS):		
	Web technologies	6
	Fundamentals of Networking	6
	Mobile UI Design	6
	Advanced mobile applications	6
	Data Structures and Algorithms	6
	Software Design Patterns & Techniques	6
Social elective module (min-6 ECTS):		
	Emerging Technologies and Innovation	6
	Ethical and Legal Issues in Information Technology	6

Title: Mobile Module		**Volume : 24 ECTS**
Objectives	To establish theoretical knowledge and practical skills related to the development of mobile application development.	
Learning outcomes	Student has the: - comprehensive understanding of the theories and methods and applications of mobile applications; - understands the principles of mobile application development; - is able to develop mobile applications and to put the knowledge to a practical use; - is able to design conceptually; - has visual creativity, originality, skills to synthesize; - has knowledge of visual aesthetics and the skill to describe mobile environment; - has enough technical knowledge of mobile programming structures;	

Assessment of the module: Grading is based on exams or assessments taken during the courses.		
Courses		
Course code	Course title	Volume (ECTS)
	Mobile Application Architecture	6
	Android Application Development	6
	IOS Application Development	6
	Application of mobile development in healthcare and education	6

Title: Fundamental Module	**Volume : 24 ECTS**
Objectives	To establish fundamental knowledge and practical skills related to the development of game design.
Learning outcomes	Student has the: - ability to apply mathematical foundations, algorithmic principles and computer science theory in the modeling and design of computer-based systems - ability to analyze a problem, and identify and define the computing requirements appropriate to its solution - Correctly uses the key concepts of project management - understanding of professional, ethical, legal and security and responsibilities - Recognition of the need for and an ability to engage in continuing professional development - An ability to use current techniques, skills and tools necessary for computing practice - has the ability to plan strategies and analyze - has the skills of project planning? - Participate effectively in teamwork in the project planning and implementation - Analyses the progress and effectiveness of the project by critically assessing their activities and planning corrective actions; - Relates their specialty to broader social and intersectional issues, discussing these issues at different levels of activities and justifying their opinion; - Understands the need for proactivity and entrepreneurship in project work and is able to communicate the activities to various target groups.

Assessment of the module: Grading is based on exams or assessments taken during the courses.		
Courses		
Course code	Course title	Volume (ECTS)
	Principles of Programming	6
	Information Technology Project Management	6

	Information Security Fundamentals	6
	Database Systems	6

Title: Research Practice		Volume: 36 ECTS
Objectives	To create an opportunity to research methods to practically apply the knowledge, skills and experience to a creative or development process.	
Learning outcomes	On successful completion of the course students will be able to - search for, select and critically analyses research articles and papers, - prepare a literature review, formulate and evaluate research questions, - develop a research proposal or industry project plan, - gain experience with instrument development and data collection methods, - participate in research activities; - participate in internship activities; - apply theoretical skills and research results in internship; - present the research questions in writing; - plan, conduct and to present their thesis.	
Assessment of the module	Thesis will be graded by a commission of specialists at a public defense.	