



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

OGP103	PROGRAMMING I				
Semester	Code	Name	T+P	Credit	ECTS
1	OGP103	PROGRAMMING I	4	3	4
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Specialist Dr. CİHAT ÖZİL cihat.ozil@gop.edu.tr	None

The aim of lesson :

This course aims to convey the fundamentals of computer programming by establishing a connection between mathematical foundations and algorithms.

Course Contents :

Variables and Data Types; Control Structures and Conditional Statements; Comparison Operators; Logical Operators; Loops and List Operations; Functions and Modular Programming; File Operations; Advanced Programming Topics and Library Usage; Error Handling; Project Development.



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

OGP106	COMPUTER GRAPHICS II				
Semester	Code	Name	T+P	Credit	ECTS
2	OGP106	COMPUTER GRAPHICS II	4	3	4
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Instructor Cihat Özil cihat.ozil@gop.edu.tr	None

The aim of lesson :

The primary objective of this course is to enable students to specialize in digital image processing, design, and manipulation techniques through advanced use of Adobe Photoshop software.

Course Contents :

This course covers digital image processing techniques, the principles of working with layers, and professional design techniques.



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

OGP109	MATHEMATICS				
Semester	Code	Name	T+P	Credit	ECTS
1	OGP109	MATHEMATICS	2	2	2
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Instructor Çiğdem ÖZTAŞ	None

The aim of lesson :

Give the key concept to student to solve basic math problems related to computer programs

Course Contents :

Arithmetic and algebraic operations, the first order one and two unknowns Equations, simple inequalities, Base and Root-making and problem-solving (Percent, age, speed problems, etc.)



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

ENF100	INFORMATION TECHNOLOGIES AND OFFICE SOFTWARE				
Semester	Code	Name	T+P	Credit	ECTS
1	ENF100	INFORMATION TECHNOLOGIES AND OFFICE SOFTWARE	2	2	3
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition	Course Coordinator	Instructor	Course Assistants	
Game Development and Programming		None	Specialist Dr. Tanju CEYLAN tanju.ceylan@gop.edu.tr	None	

The aim of lesson :

With this course, it is aimed to provide the student with the basic competencies related to Office Applications.

Course Contents :

* Overview of computer history, introduction to basic computer software and hardware - 1 * Overview of computer history, introduction to basic computer software and hardware - 2 * Introduction to operating systems - 1 * Introduction to operating systems - 2 * Computer hardware and its basic components - 1 * Computer hardware and its basic components - 2 * Overview of programming languages, algorithms, and software development - 1 * Overview of programming languages, algorithms, and software development - 2 * Introduction to Microsoft Word word processing - 1 * Introduction to Microsoft Word word processing - 2 * Introduction to Microsoft Excel spreadsheet - 1 * Introduction to Microsoft Excel spreadsheet - 2 * Introduction to Microsoft PowerPoint presentation - 1 * Introduction to Microsoft PowerPoint presentation - 2



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

KRY102	Career Planning				
Semester	Code	Name	T+P	Credit	ECTS
2	KRY102	Career Planning	1	1	2
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition	Course Coordinator	Instructor	Course Assistants	
Game Development and Programming		None	Instructor Öğr. Gör. Tanju CEYLAN	None	

The aim of lesson :

It provides information about the processes of establishing and developing a business.

Course Contents :

Microeconomic data; Market conditions; Feasibility Studies; Demand Analysis; Location, legal structure, capacity, financing, and production plan of the business; Estimated Revenue and Expense Account.



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

İNG102	English II				
Semester	Code	Name	T+P	Credit	ECTS
2	İNG102	English II	2	2	2
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Elective	
Department/Program	Precondition	Course Coordinator	Instructor	Course Assistants	
Game Development and Programming		None	Instructor Hatice Tüzün Paçcı	None	

The aim of lesson :

The objective of this course is to be able to bring the students to the A2 Level in terms of CEF.

Course Contents :

Compulsory Foreign Language Course (English)



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

ALM101	GERMAN I				
Semester	Code	Name	T+P	Credit	ECTS
1	ALM101	GERMAN I	2	2	2
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	German	Associate	No	Elective	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Instructor Erdal ÖRDEK Instructor Dr. Ömer Lütfi İSPİRLİ	None

The aim of lesson :

To be able to use german language in beginner level with the aim of written and oral communication skills, and to construct a base for further learning of the language.

Course Contents :

General main course of german language.



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

AIİT101	Ataturk's Principles and History of Turkish Revolution I				
Semester	Code	Name	T+P	Credit	ECTS
1	AIİT101	Ataturk's Principles and History of Turkish Revolution I	2	2	2
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Specialist Dr. Ayşe ERYAMAN Specialist Dr. Sadet ALTAY Specialist Dr. Sabri ZENGİN Specialist Dr. Adnan GELMEZ Specialist Dr. İzzet Bahri ATEŞLİ	None

The aim of lesson :

In order to understand conditions and features of the establishment of Republic of Turkey: To understand the reasons that forced Turkish nation to have Independence War, in which condition and within which terms Turkish War of Independence took place, upon which basis the state was established, and finally to educate next generations who know establishment philosophy of the state and who are respectful to Turkish state and nation.

Course Contents :

Aim of the course, its scope, and basic concepts. Final period of Ottoman Empire, its problems, modernization efforts and collapse. Turkish War of Independence.



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

TD101	Turkish Language I				
Semester	Code	Name	T+P	Credit	ECTS
1	TD101	Turkish Language I	2	2	2
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Instructor Dr. ERDAL BARAN	None

The aim of lesson :

The goals of lecture ara states her / him self fluentlyand affectively, mainlanguage awerness; at panels, conferece, foorum etc.

Course Contents :

Dersin amacı, kapsamı ve temel kavramlar hakkında bilgi verilmesi. Türk dilinin temel sorunları, kuralları. Dilin etkili ve güzel kullanımı.



Tokat Gaziosmanpaşa University

Tokat Vocational School
Game Development and Programming

İNG101	English I				
Semester	Code	Name	T+P	Credit	ECTS
1	İNG101	English I	2	2	2
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Elective	
Department/Program	Precondition	Course Coordinator	Instructor	Course Assistants	
Game Development and Programming		None	Instructor H.Tüzün PAÇCI	None	
The aim of lesson :					
As a result of this course, students will be able to use the basic structures to express themselves. This course aims at giving the students basics of English at beginner level.					
Course Contents :					
Compulsory Foreign Language Course (English)					



Tokat Gaziosmanpaşa University

Tokat Vocational School
Game Development and Programming

ALM102	GERMAN II				
Semester	Code	Name	T+P	Credit	ECTS
2	ALM102	GERMAN II	2	2	2
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Elective	
Department/Program	Precondition	Course Coordinator	Instructor	Course Assistants	
Game Development and Programming		None	None	None	
The aim of lesson :					
German language at a basic level and looking forward to be able to use written and oral communication purpose is to strengthen the infrastructure of language					
Course Contents :					
Current issues in the presence of basic German grammar					



Tokat Gaziosmanpaşa University

Tokat Vocational School
Game Development and Programming

AIİT102	Ataturk's Principles and History of Turkish Revolution II				
Semester	Code	Name	T+P	Credit	ECTS
2	AIİT102	Ataturk's Principles and History of Turkish Revolution II	2	2	2
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition	Course Coordinator	Instructor	Course Assistants	
Game Development and Programming		None	Asist Prof.Dr. Fatih YAZICI Prof.Dr. İsa Tak Yasemin Er Tuna	None	
The aim of lesson :					
The Republic of turkey in terms of what the sacrifice, such as how to teach that.					
Course Contents :					
Proclamation of the republic, Ataturk's Principles and Revolutions, the Republican period, the Internal and External Developments					



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

TD102	Turkish Language II				
Semester	Code	Name	T+P	Credit	ECTS
2	TD102	Turkish Language II	2	2	2

Education Type	Language	Course Level	Course Internship Status	Type of Course
Formal Education	Turkish	Associate	No	Required

Department/Program	Precondition	Course Coordinator	Instructor	Course Assistants
Game Development and Programming		None	Instructor Cafer Akin	None

The aim of lesson :

To make students become familiar with the correct, beautiful and efficient use of the Turkish language to make them base the written and spoken intercourse of the language on strong principals to make them gain their skills in correspondence, presentations and explanations successfully in their business life to make them become intellectual individuals who read, think, inquire and bring solutions.

Course Contents :

According to their subjects, reading, listening, writing, presentation, discussion, sampling, question and answer techniques will be used.



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

OGP154	TEXT AND SCRIPT WRITING				
Semester	Code	Name	T+P	Credit	ECTS
2	OGP154	TEXT AND SCRIPT WRITING	3	2	3

Education Type	Language	Course Level	Course Internship Status	Type of Course
Formal Education	Turkish	Associate	No	Elective

Department/Program	Precondition	Course Coordinator	Instructor	Course Assistants
Game Development and Programming		None	Instructor Öğr. Gör. Tanju CEYLAN	None

The aim of lesson :

The Concept of Screenwriting: Theme, Subject, Character Creation, Plot, Conflict, Climax, Storytelling; Screenplay Sections; Screenplay Outline; Development Screenplay; Breakdown Screenplay; Storyboard Preparation; Information on Editing and Transition Methods to be Used; The Concept of Narrative and the Narrator; Forms of Narrative Construction; Basic Components of Narrative; Sound Design and Sound Components; Elements Affecting Rhythm; Use of Time and Space in Narrative, Use of Dialogue in Screenwriting; Screenplay Analysis.

Course Contents :

The Concept of Screenwriting: Theme, Subject, Character Creation, Plot, Conflict, Climax, Storytelling; Screenplay Sections; Screenplay Outline; Development Screenplay; Breakdown Screenplay; Storyboard Preparation; Information on Editing and Transition Methods to be Used; The Concept of Narrative and the Narrator; Forms of Narrative Construction; Basic Components of Narrative; Sound Design and Sound Components; Elements Affecting Rhythm; Use of Time and Space in Narrative, Use of Dialogue in Screenwriting; Screenplay Analysis.



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

OGP105	COMPUTER GRAPHICS I				
Semester	Code	Name	T+P	Credit	ECTS
1	OGP105	COMPUTER GRAPHICS I	4	3	4

Education Type	Language	Course Level	Course Internship Status	Type of Course
Formal Education	Turkish	Associate	No	Required

Department/Program	Precondition	Course Coordinator	Instructor	Course Assistants
Game Development and Programming		None	Instructor Cihat Özil cihat.ozil@gop.edu.tr	None

The aim of lesson :

This course provides students with information about basic graphic design. It explains the computer programmes required for vector drawing. It explains the programmes required for creating 2D, scaled and unscaled drawings. It teaches how to create and edit images and photographs. It provides information about graphic file formats and conversions.

Course Contents :

Computer Graphics and Hardware; Raster and Vector Graphics; Colour Theory and Colour Management; Graphics File Formats and Applications; Fundamentals of Graphics Programming; Graphics Programming Tools and Libraries; 2D Graphics Creation and Editing; 3D Graphics Creation and Editing; Fundamentals of Graphics Animation; Advanced Graphics Techniques; Graphics Performance Optimisation; Graphics Debugging and Troubleshooting; Graphics Design and Aesthetic Principles; Graphics Project Development Process; Graphics Project Presentations and Evaluation.



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

OGP101	GAME DESIGN PRINCIPLES				
Semester	Code	Name	T+P	Credit	ECTS
1	OGP101	GAME DESIGN PRINCIPLES	4	3	5
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Specialist Dr. Tanju CEYLAN tanju.ceylan@gop.edu.tr	None

The aim of lesson :

The aim of this course is to prepare students for the fundamentals and working principles of game design.

Course Contents :

* Fundamental Principles and Historical Development of Game Design * Interaction in Games: An In-Depth Review * Game Balance, Progression Systems, and Difficulty Level Adjustments * Game Storytelling and Scenario Development * Character Design and Development Studies * Game World, Environment, and Atmosphere Design * Level Design Strategies * Player Experience (PX) Design * Feedback Systems, Rewards, and Motivation in Games * User Interface (UI) and Interaction Design * Game Prototyping and Development Methods * Game Testing Techniques and Player Feedback Analysis * Improvement, Update, and Revision Processes in Game Design * Design-Driven Game Project Development and Presentation



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

OGP102	GAME DEVELOPMENT				
Semester	Code	Name	T+P	Credit	ECTS
2	OGP102	GAME DEVELOPMENT	4	3	4
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Instructor Öğr. Gör. Tanju CEYLAN	None

The aim of lesson :

This course provides students with the theoretical and conceptual components of game design, as well as an overview of the practical game development process. Students will play and analyze games, and complete the visual design aspects of the game development process along with the necessary documentation.

Course Contents :

Game Development Process and Fundamental Concepts; Game Development Tools and Platforms; Game Physics and Balancing; Game Prototyping and Design; Game Graphics and Sound Design; Team Collaboration and Project Management; Game Testing and Release Process.



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

OGP107	GAME PHYSICS				
Semester	Code	Name	T+P	Credit	ECTS
1	OGP107	GAME PHYSICS	3	3	4
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Specialist Dr. Tanju CEYLAN tanju.ceylan@gop.edu.tr	None

The aim of lesson :

The aim of the course is to prepare students for the next level of education by equipping them with life skills related to basic movements, active and healthy living skills, concepts and strategies that they will use throughout their lives through games and physical activities.

Course Contents :

* Fundamental Physics Concepts and Their Applications to Games * Motion Dynamics and Animation * Collision Detection and Reaction Mechanisms * Use of Gravity and Acceleration * Introduction to Game Physics Engines * Operations and Applications of Game Physics Engines * Physics-Based Animation Techniques * Customization and Optimization of Physics Engines * Integration of Realistic Physics Simulations into Games * Physics-Based Game Mechanics Design * Analysis and Solution of Game Physics Problems * Project Examples and Applications * Review and Analysis of Sample Games * Game Physics Testing and Debugging



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

OGP104	PROGRAMMING II				
Semester	Code	Name	T+P	Credit	ECTS
2	OGP104	PROGRAMMING II	4	3	4
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Required	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Instructor Cihat Özil cihat.ozil@gop.edu.tr	None

The aim of lesson :

These solution methods teach fundamental concepts and techniques used in software development. Through sections such as functional programming, data models and programs, object-oriented programming, graphical user interface design, and database operations, the goal is to translate theoretical knowledge into practice and develop projects.

Course Contents :

Functional Programming; Data Structures and Algorithms; Sorting and Searching Algorithms; Object-Oriented Programming (OOP); GUI Programming; GUI Application Development; Database Operations; Project Development.



Tokat Gaziosmanpaşa University

Tokat Vocational School Game Development and Programming

OGP156	TECHNO-ENTREPRENEURSHIP				
Semester	Code	Name	T+P	Credit	ECTS
2	OGP156	TECHNO-ENTREPRENEURSHIP	3	2	3
Education Type	Language	Course Level	Course Internship Status	Type of Course	
Formal Education	Turkish	Associate	No	Elective	
Department/Program	Precondition		Course Coordinator	Instructor	Course Assistants
Game Development and Programming			None	Instructor Cihat Özil cihat.ozil@gop.edu.tr	None

The aim of lesson :

The objective of this course is to introduce students to the technology-based entrepreneurship ecosystem, explain the legal, financial, and managerial stages involved in the commercialization of an idea, and equip them with the skills to develop innovative business models. By the end of the course, students are expected to possess the vision and teamwork discipline necessary to transform a technological innovation into a sustainable business model.

Course Contents :

This course covers the commercialization process of technology-driven innovative ideas, techniques for creating a business model canvas, and lean startup methodologies. Throughout the course, participants will explore market analysis, MVP (Minimum Viable Product) development, intellectual property rights, and strategies for accessing funding sources. Students will gain the strategic planning and entrepreneurial ecosystem competencies needed to transform a technical project into an investor pitch.