Course Syllabus

Code - Course Title	**OGP105 - Game Development**
Course Type	I. SEMESTER
Laboratory + Practice	2+4
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	ÖĞR. GÖR. GÜVENÇ USANMAZ

Mode of Delivery	Face to Face
Prerequisites	There are no prerequisites.
Courses Recomended	It is not available.
Recommended Resources	START HERE: Creative Coding for Beginners - Patt Vira - https://www.youtube.com/playlist?list=PL0beHPVMklwgMz4Z-mNp4_udo9mjBk7pnVideo Games! - Daniel Shiffman - https://www.youtube.com/playlist?list=PLRqwX-V7Uu6aRpfixWba8ZF6tJnZy5Mfw
Work Placement	It is not available.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Introduction to Programming with p5.js, Basic structure of p5.js programs, Introduction to Github	
Week - 2		Basic Game Concepts and History, Drawing basic shapes, Color models	
Week - 3		Variables and Constants, Arithmetic Operators	
Week - 4		Control Structures, Control Structures in Games	
Week - 5		Complex Control Structures, Logical Operators	
Week - 6		Loops and Nested Loops, Loop Usage Examples from Games	
Week - 7		Arrays, Multidimensional arrays and Classes, Array and Class Usage Examples from Games	
Week - 8		Application Project: Board Game Development	
Week - 9		Application Project: Board Game Development	
Week - 10		Application Project: Word Game Development, Strings and String Operations, File Content Extraction	
Week - 11		Application Project: Word Game Development	
Week - 12		Application Project: Physics-based Game Development	
Week - 13		Application Project: Physics-based Game Development	
Week - 14		Game Development Tools and Environments	

Learning Outcomes

#	Learning Outcome
1	Understands the fundamental stages of the game development process.
2	Can use basic game development tools.
3	You will be able to create simple game prototypes.
4	Comprehends and applies fundamental programming concepts (variables, loops, conditionals, arrays, classes and functions).
5	Develops visual, functional, and interactive applications using the p5.js library.
6	Gains the ability to generate code-based solutions by breaking down problems into algorithmic steps.
7	Designs and codes the algorithmic structure of turn-based and grid-logic games.
8	Effectively uses arrays and multi-dimensional data structures to manage game data.
9	Develops simple functional games containing user interaction and game loops using the p5.js library.
10	Gains knowledge about fundamental game concepts and the history of games.

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.