COURSE SYLLABUS

Course Title	**Course Code**	**Semester**	**Course Hour/Week**		**Credit**	**ECTS**
Interface with Game Design	GAME308	6	**Theory** 1	**Practice** 4	3	5
Course Type	Compulsory Course	Department Elective	Faculty Elective	University Elective	CoHE (YÖK) Elective	Other
	Yes	-	-	-	-	-
Level of Course	Associate Degree (Short Cycle)		Undergraduate (First Cycle)		Graduate/ Doctoral (Second /Third Cycle)	
	-		Yes		-	

Language of Instruction	English

Course Instructor(s)	Dr. Masoud Moradi	E-mail : masoud.moradi@arucad.edu.tr Office : TI-OFF18
Course Objectives	This course is designed to elevate students' abilities in game creation using industry-standard tools, focusing on Unreal Engine. It aims to provide a deep understanding of game design fundamentals, emphasizing user-centric design and the intricacies of player engagement. Students will learn how to craft games that are both technically sound and appealing to users, and they will start learning through hands-on practice with Unreal Engine.	

Course Learning Outcomes	**Students will able to:**	**Teaching Methods**	**Evalutation Methods**
	Create their own games using Unreal Engine. - Utilize Unreal Engine's interface, tools, and workflows to develop playable game prototypes.	- Lectures - Practical labs - Project-based learning	- Midterm Exam - Final Exam - Project Work
	Acquire a thorough understanding of the fundamental principles of game design, as	- Lectures - In-class	- Midterm Exam - Final Exam

	applied in the Unreal Engine environment. - Identify key game design concepts (mechanics, user experience) within UE. - Critically evaluate gameplay and user engagement.	discussions - Case studies	
	Design, plan, and prepare all necessary elements for coding and finalizing a game. - Draft game design documents. - Prepare assets, levels, and scripts for efficient workflow.	- Lectures - Group workshops - Peer reviews	- Midterm Exam - Final Exam - Project Work
Course Content	∟ Game design fundamentals and the Unreal Engine interface ∟ Creating and manipulating game objects and environments ∟ Basic gameplay mechanics and programming concepts ∟ Blueprints for quick iteration and prototyping ∟ Player controls and input handling ∟ Game physics and collision ∟ Creating user interfaces in games (menus, HUDs) ∟ Basics of animation and sound integration ∟ Advanced level design techniques and world building		

COURSE OUTLINE/SCHEDULE			
Week	**Topic**	**Implementation (theory/practice)**	**Required Reading, Preliminary preparation**
1	Course syllabus review.	T/P	Instructor Notes
2	Review pointer, class object oriented.	T/P	Instructor Notes

3	Introduction to Game Design and Unreal Engine Overview of game design principles Introduction to Unreal Engine interface and basic navigation	T/P	Unreal development kit game design cookbook Thomas Mooney.**by Mooney, Thomas** Call number: GV1469.3 .M66 2012
4	Working with Game Objects and Environments. Creating and manipulating game objects Introduction to game environments and level design	T/P	Unreal development kit game design cookbook Thomas Mooney.**by Mooney, Thomas** Call number: GV1469.3 .M66 2012
5	Working with Game Objects and Environments Creating and manipulating game objects Introduction to game environments and level design	T/P	Unreal development kit game design cookbook Thomas Mooney.**by Mooney, Thomas** Call number: GV1469.3 .M66 2012
6	Introduction to Blueprints Understanding Blueprints in Unreal Engine Creating simple interactive elements with Blueprints	T/P	Instructor Notes
7	**MIDTERM WEEK**	**Midterm**	
8	**MIDTERM WEEK**	**Midterm**	
9	Player Controls and Input Handling Configuring player controls Handling user input in games	T/P	Unreal development kit game design cookbook Thomas Mooney.**by Mooney, Thomas** Call number: GV1469.3 .M66 2012
10	Game Physics and Collisions Basics of game physics in Unreal Engine Implementing collision detection and response	T/P	Unreal development kit game design cookbook Thomas Mooney.**by Mooney, Thomas** Call number: GV1469.3 .M66 2012
11	Creating User Interfaces in Games Designing and implementing game menus and HUDs Integrating UI elements with game logic	T/P	Unreal development kit game design cookbook Thomas Mooney.**by Mooney, Thomas** Call number: GV1469.3 .M66 2012

12	Animations and Sound Basics of animation in Unreal Engine Adding sound effects and background music	T/P	https://dev.epicgames.com/documentation/en-us/unreal-engine/unreal-engine-5-5-documentation
13	Level Design and World Building Advanced level design techniques World building and environment creation	T/P	https://dev.epicgames.com/documentation/en-us/unreal-engine/unreal-engine-5-5-documentation
14	Project Review		
15	Project Review		
15	**FINAL EXAM WEEK**		

Required Course Material(s) / Reading(s)/ Text Book(s)	Unreal development kit game design cookbook Thomas Mooney.**by Mooney, Thomas** Call number: GV1469.3 .M66 2012
Recommended Course Material(s)/ Reading(s) /Other	https://dev.epicgames.com/documentation/en-us/unreal-engine/unreal-engine-5-5-documentation

SESSMENT		
Learning Activities	**NUMBER**	**WEIGHT in %**
Mid-Term	1	40
Quiz		
Assignment		
Project		
Field Study		

Presentation / Seminar		
Studio Practice		
Other		
Contribution of Final Examination/Final Project/ Dissertation to the Final Grade	1	60
TOTAL		100

CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME LEARNING OUTCOMES							
No	PROGRAMME LEARNING OUTCOMES	Level of Contribution (1-lowest/ 5-highest)				
		1	2	3	4	5
1	Knows the historical development of the field of communication, basic concepts, theories.	✓				
2	Knows the basic concepts and terminology related to the field of game design.			✓		
3	Has knowledge about the history of computer and video games and developments in this field.		✓			
4	Knows game design processes and related applications.				✓	
5	Has the ability to utilize various disciplines such as communication, art, music, psychology, mythology, cinema, etc. in the game design process.				✓	
6	Has the ability to analyze analog and digital game genres.					✓
7	Has the ability to use contemporary game engines and problem solving skills.				✓	
8	Has the knowledge of questioning the game designs with an analytic and critical perspective.			✓		
9	Has knowledge about media literacy.		✓			
10	Has the competence to prepare projects based on ethical principles in game development processes.		✓			
11	Has the competence to evaluate games as an art form.				✓	
12	Has the competence to use game design concepts and methods in related fields such as design, software development and media.					✓

13	Has the competence to take part and responsibility in game development teams.					✓
14	Has the competence to collect, analyze and interpret analytical data about games and players.				✓	
15	Has the competence to develop and present a digital game project by using game design practices effectively.					✓
16	Evaluates artificial intelligence applications in their studies with a critical approach in terms of aesthetics and originality, and uses them in accordance with ethical rules.			✓		

ECTS / STUDENT WORKLOAD				
ACTIVITIES	**NUMBER**	**UNIT**	**HOUR**	**TOTAL (WORKLOAD)**
Course Teaching Hour (X weeks * total course hours)	14		5	70
Preliminary Preparation and self- study				
Mid-Term	1		30	30
Quiz				
Assignment				
Project				
Field Study				
Presentation / Seminar				
Studio Practice				
Final Examination/ Final Project/ Dissertation	1		35	35
Other				
TOTAL WORKLOAD				135
TOTAL WORKLOAD / 25				5.4
ECTS				5

	SDG 1: No Poverty	×
	SDG 2: Zero Hunger	×
	SDG 3: Good Health and Well-Being	×
	SDG 4: Quality Education	√
	SDG 5: Gender Equality	×
	SDG 6: Clean Water and Sanitation	×
	SDG 7: Affordable and Clean Energy	×
	SDG 8: Decent Work and Economic Growth	×
	SDG 9: Industry, Innovation and Infrastructure	√
	SDG 10: Reduced Inequalities	×
	SDG 11: Sustainable Cities and Communities	×
	SDG 12: Responsible Consumption and Production	×
	SDG 13: Climate Action	×
	SDG 14: Life Below Water	×
	SDG 15: Life on Land	×
	SDG 16:Peace, Justice and Strong Institutions	×
	SDG 17:Partnership for the Goals	×

ETHICAL RULES WITH REGARD TO THE COURSE
Plagiarism Disclaimer Detected and undetected plagiarism is a serious offence at any time and it could have devastating effects on your degree result and future professional life. Plagiarism is easy to avoid if you make sure you thoroughly identify and recognize your sources and do not copy from visual examples, designs or notes taken directly from your sources word for word. The maximum citation limit cannot exceed 20%. Artificial intelligence citations are also considered within this scope. If proven otherwise, the student will fail the course.

ASSESSMENT DETAILS AND EVALUATION CRITERIA:
Final Grades will be determined according to the Course Learning Activities and Final Examination/ Project/ Dissertation Assessment Details as below, and comply with the Education and Examination Regulation set forth by the University. Throughout the course, students will learn the theoretical base of the topic and they will be able to equip themselves with the practical know-how skills of Advertisement production. Also, students are expected to design a creative advertisement piece with the knowledge they have gained in the course. During the class sessions, participation is a very important input for the learning process for the students. It is also vital to understand the effect of creativity input on the production process of advertisement. 70% attendance to courses is compulsory. Health reports belong to 30% absenteeism right.

PREPARED BY	Dr.Masoud Moradi
UPDATED	28.03.2026
APPROVED	