COURSE SYLLABUS						
Course Title	**Course Code**	**Semester**	**Course Hour/Week**		**Credit**	**ECTS**
2D Game Animation	GAME204	4	**Theory** 2	**Practice** 2	3	6
Course Type	Compulsory Course	Department Elective	Faculty Elective	University Elective	CoHE (YÖK) Elective	Other
	X	-	-	-	-	-
Level of Course	Associate Degree (Short Cycle)		Undergraduate (First Cycle)		Graduate/ Doctoral (Second /Third Cycle)	
	-		X		-	

Language of Instruction	English

Course Instructor(s)	Ali Çağan Uzman	E-mail : ali.uzman@arucad.edu.tr
Course Objectives	The purpose of this course is to equip students with the fundamental techniques and practical skills required to create fluid 2D animations tailored specifically for video games. Throughout the semester, students will explore the core principles of animation, transitioning digital sketches and character designs into game-ready assets. Students will learn how to produce animations using various techniques, including traditional frame-by-frame, sprite-based, and 2D skeletal cutout animation. By completing multiple practical assignments, students will animate characters, props, and environments, ultimately learning the complete pipeline of how to export and implement these animated assets directly into a game engine.	
Course Learning Outcomes	**Students will be able to:**	**Teaching Methods** / **Evaluation Methods**
	Summarize the fundamental principles of 2D game animation pipelines and digital keyframing techniques.	Project-Based Learning / Mid-term and Final submission

	Apply the 12 principles of animation to design fluid character assets and environment-based movement cycles.	Project-Based Learning	Mid-term and Final submission
	Produce optimized 2D animation assets, including sprite sheets and texture atlases, specifically for real-time engine performance.	Project-Based Learning	Mid-term and Final submission
Course Content	Introduction to 2D animation pipelines for games Applying the 12 principles of animation to digital sprites Digital keyframing and in-betweening Creating seamless looping animations Prop and environment animation Optimizing visual assets for engine performance Generating sprite sheets and texture atlases Importing assets into game engines Configuring animation state machines and blending interactive transitions		

COURSE OUTLINE/SCHEDULE			
Week	**Topic**	**Implementation (theory/practice)**	**Required Reading, Preliminary preparation**
1	Introduction to Game Animation: Overview of 2D animation pipelines for games. Analysis and discussion of various 2D game animation examples to establish visual benchmarks.		Lecturer's Notes and Slides
2	Animation Fundamentals: Getting started with Adobe Animate CC. Understanding the core concept of keyframes by creating basic bouncing ball animations.		Lecturer's Notes and Slides

3	Refining Movement: Deep dive into Animate CC tools. Utilizing onion skinning, timeline editing, and brush settings to refine and color animations. Finishing two distinct bouncing balls to contrast fluid and solid movement.		Lecturer's Notes and Slides Stephen Brooks (2017) Tradigital animate CC 12 principles of animation in Adobe animate
4	Character Animation Basics: Introduction to simple character animation. Examining the acclaimed character designs and animations of Hollow Knight to understand how movement conveys weight, personality, and ludonarrative intent.		Lecturer's Notes and Slides https://www.youtube.com/watch?v=8CBvgBARve0 Stephen Brooks (2017) Tradigital animate CC : 12 principles of animation in Adobe animate
5	Original Character Project: Project kickoff. Designing a unique, original character tailored for the Hollow Knight universe and drafting a frame-by-frame idle or T-pose animation.		Lecturer's Notes and Slides https://helpx.adobe.com/cy_en/animate/how-to/managing-color-in-a-document.html?playlist=/services/playlist.h
6	Exporting Workflows: Refining character designs by coloring the T-pose animation and learning the technical workflow for exporting the work as a clean PNG sequence.	P	Lecturer's Notes and Slides https://www.youtube.com/watch?v=UY7zbbA4pjQ&feature=emb_title Stephen Brooks (2017) Tradigital animate CC : 12 principles of animation in Adobe animate
7	Environment and Parallax: Bringing assets together. Combining the exported PNG sequence with a layered background design to create a seamless, looping parallax animation.	P	Lecturer's Notes and Slides https://www.youtube.com/watch?v=UY7zbbA4pjQ&feature=emb_title Stephen Brooks (2017) Tradigital animate CC : 12 principles of animation in Adobe animate
8	**Revision** **MIDTERM**	**Midterm**	
9	The Walk Cycle: Tackling the classic walk cycle. Studying the 1930s rubber-hose animation style of Cuphead and planning out fluid, stylized walk animations.	P	Lecturer's Notes and Slides
10	Engine Integration: Finalizing the Cuphead-style walk cycles with color and polish. Importing and setting up the final animations directly within the Godot game engine to test them in a playable state.	P	

11	Motion Comics & Storyboards: Starting a modular animation project. Creating layered, motion-comic style intro scenes inspired by The Witcher III, with a focus on planning story structure and setting up initial animation layers.	P	Lecturer's Notes and Slides
12	Stylization: Continuing the motion-comic project. Coloring the scenes and applying specific illustrative techniques to achieve a gritty, graphic novel aesthetic.	P	https://kotaku.com/tips-for-drawingbackgrounds-1759168924 https://www.youtube.com/watch?v=ErSU7PqAi40 Lecturer's Notes and Slides
13	Compositing Basics: Introduction to compositing in Adobe After Effects. Learning the basics of the interface, combining pre-made layers, and utilizing the virtual camera for dynamic scene movement.	P	youtube.com/ watch?v=dd2gz6AxYoA&t=63s Lecturer's Notes and Slides
14	Final Polish & Exporting: Finalizing a 30-second motion-comic animation in After Effects. Utilizing adjustment layers, effects, and compositions across at least three depth layers, and exporting the final project as a high-quality H.264 movie clip.		
15	**FINAL EXAM WEEK**	**Final**	

Required Course Material(s) / Reading(s)/ Text Book(s)	Design for Motion motion design techniques & fundamentals written by Austin Shaw by Shaw, Austin, Material type: Text Text; Format: print ; Literary form: Publication details: New York : Focal Press, 2016 Availability: Items available for loan: ARUCAD (1)Call number: REF TR 897.7 .S3885 2016.

Recommended Course Material(s)/ Reading(s) /Other	Tradigital animate CC 12 principles of animation in Adobe animate Stephen Brooks by Brooks, Stephen, 1983, Material type: Text Text; Format: print ; Focal Press Book [2017] Availability: Items available for loan: ARUCAD (2)Call number: TR897.72.F53 .B76 2017, ...

ASSESSMENT		
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.		X			
2	Knows the basic concepts and terminology related to the field of game design.				X	
3	Has knowledge about the history of computer and video games and developments in this field.		X			
4	Knows game design processes and related applications.					X
5	Has the ability to utilize various disciplines such as communication, art, music, psychology, mythology, cinema, etc. in the game design process.			X		
6	Has the ability to analyze analog and digital game genres.	X				
7	Has the ability to use contemporary game engines and problem solving skills.		X			
8	Has the knowledge of questioning the game designs with an analytic and critical perspective.		X			
9	Has knowledge about media literacy.		X			
10	Has the competence to prepare projects based on ethical principles in game development processes.	X				
11	Has the competence to evaluate games as an art form.				X	
12	Has the competence to use game design concepts and methods in related fields such as design, software development and media.				X	
13	Has the competence to take part and responsibility in game development teams.	X				
14	Has the competence to collect, analyze and interpret analytical data about games and players.	X				
15	Has the competence to develop and present a digital game project by using game design practices effectively.	X				
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.		X			

ECTS / STUDENT WORKLOAD				
ACTIVITIES	**NUMBER**	**UNIT**	**HOUR**	**TOTAL (WORKLOAD)**
Course Teaching Hour (X weeks * total course hours)	14		4	56
Preliminary Preparation and self- study	-		-	-
Mid-Term	1		10	10
Quiz	-		-	-
Assignment	-		-	-
Project	-		-	-
Field Study	-		-	-
Presentation / Seminar	-		-	-
Studio Practice	10		4	40
Final Examination/ Final Project/ Dissertation	1		23	23
Other	-		-	-
TOTAL WORKLOAD	-		-	129
TOTAL WORKLOAD / 25				5.16
ECTS				**5**

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 lives. Plagiarism is easy to avoid if you make sure to identify and acknowledge your sources thoroughly and do not copy directly from visual examples, designs, or notes that have in turn been taken word for word from your sources.

	SDG 1: No Poverty	
	SDG 2: Zero Hunger	
	SDG 3: Good Health and Well-Being	
	SDG 4: Quality Education	X
	SDG 5: Gender Equality	X
	SDG 6: Clean Water and Sanitation	
	SDG 7: Affordable and Clean Energy	
	SDG 8: Decent Work and Economic Growth	X
	SDG 9: Industry, Innovation and Infrastructure	X
	SDG 10: Reduced Inequalities	X
	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	X
	SDG 17:Partnership for the Goals	X

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 by the Education and Examination Regulation set forth by the University.

Throughout the course, students will learn theorotical 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 very important input for learning process for the students. It is also vital to understand the effect of creativity input for the production process of advertisement.

PREPARED BY	Ali Çağan Uzman
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APPROVED	