

COURSE SYLLABUS						
Course Title	Course Code	Semester	Course Hour/Week		Credit	ECTS
3D Modeling, Texturing & Lighting - II	GAME 302	Spring 2025 - 2026	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)	Danish Craig		E-mail: danish.craig@arucad.edu.tr Office : TI OFF 7			
Course Objectives	This course introduces students to advanced 3D modelling practices. Students will learn to prepare clean models, create good topology, utilize good UV and texturing practices, build bone systems, apply skinning, and animate characters using key principles and motion capture data. By the end of the course, they will be able to create and present professional-quality meshes for games, film, and other digital media.					
Course Learning Outcomes	Students will able to:		Teaching Methods	Evaluation Methods		
	Plan and organize the workflow for 3D modelling, texturing, character rigging and animation based on established modeling practices.		Project-Based Learning	Mid-Term Submission		
	Develop skills in navigating 3D software interfaces, managing timelines, UVing, texturing and preparing frames for animation.		Project-Based Learning	Mid-Term Submission		
	Establish clean 3D models by applying proper polygon management and basic rigging techniques.		Project-Based Learning	Mid-Term Submission		
	Integrate bone systems (IK/FK setups and controllers) into human character rigs for animation-ready models.		Project-Based Learning	Mid-Term Submission		

Course Content	Produce quality, ready-to-use 3D models for game, media and other uses.	Project-Based Learning	Final Submission
	<ul style="list-style-type: none"> • 3D modeling review and preparation for animation • Cleaning up models, edge flow and topology • Texturing techniques: attaching materials and textures to meshes • Principles of lighting scenes • Camera usage and rendering • Adding, mixing, refining, and blending rigs and animations • Final project presentation and portfolio preparation 		

COURSE OUTLINE/SCHEDULE			
Week	Topic	Implementation (theory/practice)	Required Reading, Preliminary preparation
1	Introduction to the course. Overview of 3D modeling that has been learned previously.	T	
2	Navigation and UI, Timeline, and Frames Preparation work for future sections	T/P	No reading is required.
3	3D Modelling Rules and Polygon Cleaning	T/P	Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/
4	Practicing proper edge flow and re-topology	T/P	Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/
5	Advanced modelling techniques (modifiers, sculpting, simulation)	T/P	Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/
6	Introduction to basic texturing through Blender and Substance Painter	T/P	Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/
7	Prep Work for mid term	T/P	No reading is required
8	Midterm Exam	Midterm	No reading is required

9	Advanced Texturing and Multi-textured meshes	T/P	Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/
10	Lighting Basics	T/P	Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/
11	Rendering and Camera Basics	T/P	Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/
12	Basic Rigging Principles	T/P	Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/
13	Adding animations to rigged meshes	T/P	Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/
14	Prep Work for Final Exam	T/P	
15	FINAL EXAM	Final	No reading is required

Required Course Material(s) / Reading(s) / Text Book(s)	Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/
Recommended Course Material(s) / Reading(s) / Other	" Animation Survival Kit " by Richard Williams (Library of Congress Catalog Number (LCCN): 2001052895, ISBN-13: 978-0571202287) " Game Character Creation with Blender and Unity " by Chris Totten (Library of Congress Catalog Number (LCCN): 2013046745, ISBN-13: 978-1118817425)

	<p>"Digital Character Animation 3" by George Maestri (Library of Congress Catalog Number (LCCN): 2002014119, ISBN-13: 978-0735712944)</p> <p>Blender Documentation - The official documentation for Blender. It includes tutorials, user manuals, and technical information about Blender: https://docs.blender.org/manual/en/latest/</p> <p>Blender Guru - A popular online resource for Blender tutorials, tips, and tricks: https://www.blenderguru.com/</p> <p>CG Cookie - A website that offers a range of Blender courses and tutorials for both beginners and advanced users: https://cgcookie.com/</p> <p>Blender Artists - A community of Blender users who share their work, tutorials, and resources: https://blenderartists.org/</p> <p>Blender Nation - A news website that covers the latest Blender-related news, tutorials, and resources: https://www.blendernation.com/</p> <p>Blender Cloud - A subscription-based platform that provides access to Blender training, assets, and tools: https://cloud.blender.org/</p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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	To know and explain the basic concepts, theories, institutional structures of communication.		X			
2	To know the history of the game industry and the foundational theories of game design, thus, to be able to explain the terms of professions, professional ethical roles and responsibilities of the profession.			X		
3	The ability to follow the technological and socio-cultural developments and understand the impact of these development on the game industry and observe the changes.		X			
4	The ability to take part in international working environments and be able to analyse the international game industry's needs.				X	
5	Knowledge of count design, pattern manipulation and terminology for game and production tools.					X
6	Being able to produce, designs, create and program application works in the production processes related to this profession.					X
7	Knowledge of the basic principles and processes related to the narrative, aesthetics, technical elements of audio-visual animated and interactive content, and distinguishing successful or unsuccessful works with these aspects.			X		
8	The awareness that each design involves social contexts and in some cases, ethical choices, being able to analyse and evaluate these situations.		X			
9	Ability to solve problems using resources to find the best solutions to game development challenges.				X	
10	Ability to create, develop and manage professional workflows,					X
11	Ability to communicate effectively with colleagues, customers, and colleagues in the industry, in a professional context, using written, oral, and up-to-date communication technology.				X	














ECTS / STUDENT WORKLOAD				
ACTIVITIES	NUMBER	UNIT	HOUR	TOTAL (WORKLOAD)
Course Teaching Hour (X weeks * total course hours)	15		5	75
Preliminary Preparation and self- study	15		1	15
Mid-Term	1		15	15
Quiz	-		-	-
Assignment	-		-	-
Project	-		-	-
Field Study	-		-	-
Presentation / Seminar	-		-	-
Studio Practice	-		-	-
Final Examination/ Final Project/ Dissertation	1		20	20
Other	-		-	-
TOTAL WORKLOAD				125
TOTAL WORKLOAD / 25				5
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 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.

	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	X
	SDG 9: Industry, Innovation and Infrastructure	X
	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	

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.

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 Danish Craig

UPDATED 20/02/2026

APPROVED Assist. Prof. Dr. Yunus Luckinger