ARUCAD
Arkin University
of Creative Arts and Design

COURSE SYLLABUS

Course Title	Course Code	Semester	Course Hour/Week		Credit	ECTS
			Theory	**Practice**		
3D Modelling, Texturing and Lightening II	GAME 302	VI	1	4	3	3

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)	Bohloul Belarak	E-mail : bohloul.belarak@arucad.edu.tr Office : DA Mac lab 01
Course Objectives	This course introduces students to the fundamentals of 3D character rigging and animation. Students will learn to prepare clean models, 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 animated characters for games, film, and other digital media.	

Course Learning Outcomes	Students will able to:	Teaching Methods	Evalutation Methods
	Plan and organize the workflow for 3D character rigging and animation based on established modeling practices.	Project-Based Learning	mid-term submission
	Develop skills in navigating 3D software interfaces, managing timelines, 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
	Produce basic character animations, including walk cycles and ball animations.	Project-Based Learning	final submission
Course Content	● 3D modeling review and preparation for animation ● Rigging fundamentals: bone systems, IK/FK setups, and controllers ● Skinning techniques: attaching rigs to meshes ● Principles of animation and timeline management ● Character animation: walk cycles, ball animations, and motion capture integration ● Mixing, refining, and blending 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 modeling Rules and Polygon cleaning Simple rig and skinning	T/P	Lecturer's Slides and Notes
4	Bone Systems Part 1: start rigging a human	T/P	Lecturer's Slides and Notes
5	Bone Systems part 2: IK/FK, controllers	T/P	Lecturer's Slides and Notes
6	Skinning: Attaching the bone to the mesh	T/P	Lecturer's Slides and Notes
7	Prep Work for mid term	T/P	Lecturer's Slides and Notes

8	Midterm Exam		
9	Principle of Animation 1: Starting with a ball animation		Lecturer's Slides and Notes
10	Principle of Animation 2: working with curve editor and animation layers	T/P	Lecturer's Slides and Notes
11	Animating Part 1: walk cycle animation	T/P	Lecturer's Slides and Notes
12	Animating part 2: adding motion capture animation to our character		Lecturer's Slides and Notes
13	Mixing and adjusting different animations	T/P	Lecturer's Slides and Notes
14	Working on the presentation	T/P	Lecturer's Slides and Notes
15	Project and Practice Session 1	T/P	No reading is required.
16	Project and Practice Session 2	T/P	No reading is required.
17	Final Exam Week	T	

Required Course Material(s) / Reading(s)/ Text Book(s)	**"Animation Survival Kit"** by Richard Williams (Library of Congress Catalog Number (LCCN): 2001052895, ISBN-13: 978-0571202287)
Recommended Course Material(s)/ Reading(s) /Other	**"Digital Character Animation 3"** by George Maestri (Library of Congress Catalog Number (LCCN): 2002014119, ISBN-13: 978-0735712944) **"Game Character Creation with Blender and Unity"** by Chris Totten (Library of Congress Catalog Number (LCCN): 2013046745, ISBN-13: 978-1118817425)

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)	17		5	85
Preliminary Preparation and self- study	15		1	15
Mid-Term	1		10	10
Quiz	-		-	-
Assignment	-		-	-
Project	-		-	-
Field Study	-		-	-
Presentation / Seminar	-		-	-
Studio Practice	-		-	-
Final Examination/ Final Project/ Dissertation	1		15	15
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.

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	Bohloul Belarak
UPDATED	4/28/2025
APPROVED	