COURSE SYLLABUS						
Course Title	**Course Code**	**Semester**	**Course Hour/Week**		**Credit**	**ECTS**
Fundamentals of Communication	GAME 213	5	**Theory** 3	**Practice** 0	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 introduces the fundamental concepts of artificial intelligence, including machine learning, natural language processing, computer vision.	
Course Learning Outcomes	**Students will able to:**	**Teaching Methods** / **Evalutation Methods**
	Describe foundational AI concepts and history.	- Lectures - Project-based learning - Midterm Exam - Final Exam
	Explain major ways AI is applied in digital games	- Lectures - In-class - Midterm Exam - Final Exam

Course Content	Discuss ethical issues (bias, privacy, behavioural manipulation, environmental cost)..	Panel-style discussions, reading groups	Final exam, presentation
	By the end of this course, students will be able to: •Understand the basics of AI •Explain the different ways AI is used in games •Evaluate the effectiveness of AI in games •Discuss the ethical considerations of using AI in games		

COURSE OUTLINE/SCHEDULE			
Week	**Topic**	**Implementation (theory/practice)**	**Required Reading, Preliminary preparation**
1	Introduction: General information about Artificial Intelligence (AI)	T	Instructor course notes.
2	Introduction to AI •What is AI? •History of AI •Types of AI	T	Instructor course notes.
3	Understanding Intelligence: • Characteristics of intelligence • Comparison between human and machine intelligence	T	Instructor course notes.
4	Introduction to Machine Learning: What Is Machine Learning and How It Works	T	Instructor course notes.
5	Supervised Learning: Introduction to Regression and Classification	T	Instructor course notes.
6	Natural Language Processing • Text classification •Named entity recognition •Sentiment analysis	T	Instructor course notes.
7		T	Instructor course notes.
8	**Mid-Term Exam**		

9	Strong and Weak AI Definitions and distinctions Examples and applications	T/P	Instructor course notes.
10	Applications of AI in the Game Industry: Overview and Examples	T	Instructor course notes.
11	AI for Non-Player Characters (NPCs): Basic Decision-Making in Games	T	Instructor course notes.
12	Pathfinding Algorithms in Games: Simple Pathfinding Techniques	T	Instructor course notes.
13	AI for Game Behavior: Using Finite State Machines (FSMs) to Control Game AI	T	Instructor course notes.
14	AI and Player Experience: How AI Adapts to Player Behavior Using Machine Learning	T	Instructor course notes.
15	Future Trends in Game AI: Emerging Applications and AI-Driven Game Design Innovation		Instructor course notes.
16	**Revision**		
17	**Final Exam**		

Required Course Material(s) / Reading(s)/ Text Book(s)	Artificial intelligence / Michael Wooldridge ; with illustrations by Stephen Player.by Wooldridge, Michael J, ailability: **Items available for loan:** ARUCAD (1)Call number: Q335.4 .W66 18.

Recommended Course Material(s)/ Reading(s) /Other	

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.		✓			
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 analogy 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)	15		3	45
Preliminary Preparation and self- study	15		3	45
Mid-Term	1		10	10
Quiz				
Assignment				
Project				
Field Study				
Presentation / Seminar	1		10	10

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

- Submitted work must meet all specified criteria in the assignment specifications.
- Submitted work must be related the with the course works done in the classes.
- Late submission is NOT accepted.
- Presentation will be graded depending on requirements below;
    - Presentation must be submitted as a hard copy.
    - Presentation should include power point slide show.
    - Power point slides must be clear and readable.
    - Pp slides must be visually appealing.
    - Pp slides must include suitable use of figures/data/diagrams.
    - Content must be comprehensive and include well researched use of material.
    - All group members must speak during the presentation by taking turns.
    - Group members must NOT read from the notes.
    - Group members must be engaged with the audience.

Throughout the course, students will learn 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 very important input for learning process for the students.

70% attendance to courses is compulsory. Health reports belongs to 30% absenteeism.

PREPARED BY	Dr. Masoud Moradi
UPDATED	12/04/2025
APPROVED	