

COURSE DESCRIPTION FORM	
Course Code and Name	CENG379 INNOVATIVE GAME DESIGN (TECH. ELECT.)
Course Semester	5
Catalogue Data of the Course (Course Content)	Fundamentals of game design, role of a game designer, game mechanics and dynamics, game development pipelines. Prototyping, balancing and game testing.
Course Textbooks	Fullerton, T. (2018). Game Design Workshop: A Playcentric Approach to Creating Innovative Games (4th ed.). A K Peters/CRC Press.
Supplementary Textbooks	Adams, E. (2023). Fundamentals of game design (4th ed.). CRC Press. Schell, J. (2008). The art of game design: A playful approach. A K Peters/CRC Press.
Credit (ECTS)	6
Prerequisites for the Course (Attendance Requirements)	There is no prerequisite or co-requisite for this course.
Course Type	Elective
Language of Instruction	English
Course Objectives	This course teaches students the fundamentals of iterative game design, evaluation of game design success with an emphasis on team-based development. To gain practical knowledge and experience on design process, students will work on a game, using techniques and principles derived from established state-of-the-art industrial best practices. The course includes detail examination of game design, its theories, and further methods of game programming, and game production.
Course Learning Outcomes	<ol style="list-style-type: none"> 1. Understand and practice the process of understand the theory and practice of game design 2. Apply game design and development processes, analyze creative techniques for stimulating the generation of design ideas, techniques for evaluating the success of game designs, and techniques for game prototyping. 3. Gain practical experience in game design and development. 4. Develop a group project involving the iterative design, evaluation and playtesting of a simple game.
Instruction Method (Face-to-face, Distance education etc.)	The mode of delivery of this course is face to face.
Weekly Schedule of the Course	<p>Week 1: Game Design Basics, components and process</p> <p>Week 2: The Role of the Game Designer</p> <p>Week 3: The Structure of Games</p> <p>Week 4: Dramatic Elements:</p> <p>Week 5: System Dynamics:</p> <p>Week 6: Conceptualization: Brainstorm game ideas</p> <p>Week 7: Midterm Exam & Review</p> <p>Week 8: Paper Prototyping</p> <p>Week 9: Playtesting</p> <p>Week 10: Game Prototyping</p> <p>Week 11: Game Prototyping</p> <p>Week 12: Project Testing & Deployment</p> <p>Week 13: Completeness, Balance, and Fun</p> <p>Week 14: Playtesting Functionality & Future Trends</p>
Teaching Activities (The time spent for the activities listed here will determine the amount of credit required)	<p>Weekly theoretical course hours</p> <p>Designing and implementing materials</p> <p>Making a report</p> <p>Preparing and making presentations</p> <p>Midterm and revision for midterm</p> <p>Final exam and revision for final exam</p> <p>Midterm and revision for midterm</p> <p>Final exam and revision for final exam</p>

Assessment Criteria		Number(s)	Weight (%)			
	Midterm exam	1	30			
	Assignment					
	Application					
	Project	1	30			
	Practice					
	Quiz					
	Final exam	1	40			
Total	3	100				

Workload of the Course	Activity	Number of Weeks	Duration (Weekly Hour)	End of Semester Total Workload				
	Weekly theoretical course hours	14	3	42				
	Weekly practical course hours							
	Reading activities							
	Internet search and library work							
	Designing and implementing materials	5	3	15				
	Making a report	12	4	48				
	Preparing and making presentations	5	3	15				
	Midterm and revision for midterm	1	15	15				
	Final exam and revision for final exam	1	15	15				
	Total workload			150				
	Total workload/ 25			6				
	Course Credit (ECTS)			6				

Contribution Level between Course Outcomes and Program Outcomes	No	Program Outcomes	1	2	3	4	5
	1	Knowledge of mathematics, science, basic engineering, computing, and computer engineering; ability to use this knowledge in solving complex engineering problems.		x			
	2	Ability to define, formulate and analyze complex engineering problems using basic science, mathematics and engineering knowledge and considering the UN Sustainable Development Goals relevant to the problems addressed.	x				
	3	Ability to design creative solutions to complex engineering problems; ability to design complex systems, processes, devices, software, algorithms or products to meet current and future requirements, considering realistic constraints and conditions.				x	
	4	Ability to select, use and develop appropriate techniques, resources and modern engineering and informatics tools, including estimation and modeling, for the analysis and solution of complex engineering problems while being aware of their limitations.			x		
	5	Ability to use research methods to examine complex engineering problems or research topics in computer engineering, including reviewing the literature, designing experiments, conducting experiments, collecting data, analyzing and interpreting results.			x		
	6	Knowledge of the effects of engineering practices and the standards used in these			x		

		practices on society, health and safety, economy, sustainability and environment within the scope of the UN Sustainable Development Goals; awareness of the consequences of engineering solutions in the fields of information security and law.					
	7	Acting in accordance with engineering professional principles and knowledge on ethical responsibility; awareness of acting impartially, without discrimination on any issue, and being inclusive of diversity.			x		
	8	Ability to work effectively individually and as a team member or leader in intradisciplinary and multidisciplinary teams (face-to-face, remote, or hybrid).				x	
	9	Ability to conduct effective verbal and written communication on technical issues in Turkish or English, prepare reports, make effective presentations and prepare software documentation, considering the various differences of the target audience (such as education, language, profession).				x	
	10	Knowledge of business practices such as project, risk and change management and economic feasibility analysis; awareness of entrepreneurship and innovation.			x		
	11	Lifelong learning skill that includes the ability to learn independently and continuously, to adapt to new and developing scientific practices and technologies, and to think inquisitively about technological changes.		x			
Lecturer(s) and Contact Information	Lecturer's First/Last Name: Assoc. Prof. Dr. Murat YILMAZ E-mail address: my@gazi.edu.tr						