



LEFKE AVRUPA ÜNİVERSİTESİ
EUROPEAN UNIVERSITY OF LEFKE

**DEPARTMENT OF
DIGITAL GAME DESIGN**

PROGRAM INFORMATION

www.eul.edu.tr

PROGRAM INFORMATION

Program Name and Degree Awarded

Digital Game Design, Bachelor Degree

Duration of Studies

8 semesters, 4 years

Total Credits / ECTS

132 credits / 240 ECTS

Language of Instruction

English

Mission and Vision

The Department of Digital Game Design envisions becoming a leading academic and creative hub where innovation, technology, and storytelling converge to shape the future of interactive entertainment. The program aspires to produce visionary game designers who are not only technically skilled but also culturally aware, socially responsible, and globally competitive in the rapidly evolving game industry.

The mission of the Department of Digital Game Design is to provide students with a comprehensive education that integrates design principles, programming, art, and storytelling into the creation of immersive and meaningful game experiences. Through a curriculum that emphasizes creativity, critical thinking, research, and hands-on practice with industry-standard tools, the program prepares graduates to contribute to the global game industry as innovative designers, developers, and storytellers. The department is dedicated to fostering interdisciplinary collaboration, ethical awareness, and adaptability, empowering students to create engaging, inclusive, and impactful digital games.

Program Objectives

The Digital Game Design program aims to educate innovative and responsible game designers who combine creativity, technology, and critical thinking to develop interactive experiences for entertainment, education, and cultural expression. By integrating art, design, programming, and storytelling, the program prepares graduates to succeed in the global game industry and related creative sectors. Students are encouraged to develop both technical expertise and ethical awareness, equipping them to contribute to the advancement of digital culture and interactive media.

Key Objectives:

- Develop a solid foundation in design principles, visual communication, and creative problem-solving for game development.
- Equip students with technical proficiency in 2D/3D modeling, animation, programming, and game engines.

- Foster skills in storytelling, world-building, and interactive narrative design to create engaging player experiences.
- Promote research and critical analysis of games as cultural, social, and artistic artifacts.
- Encourage innovation, experimentation, and originality in gameplay mechanics and visual aesthetics.
- Support interdisciplinary collaboration and teamwork in the development of complex game projects.
- Raise awareness of ethical, cultural, and inclusive practices in game design and production.
- Prepare graduates for careers in the digital game industry, interactive media, and related creative fields, as well as for advanced academic studies.

Program Learning Outcomes

Graduates of the Digital Game Design program will be able to:

1. **Game Design Knowledge** – Demonstrate a comprehensive understanding of game design principles, history, and aesthetics, and apply them to the creation of interactive experiences.
2. **Creative Problem-Solving** – Analyze, conceptualize, and develop innovative gameplay mechanics, narratives, and visual worlds to address design challenges.
3. **Technical Proficiency** – Use industry-standard software, programming languages, and game engines (e.g., Unity, Unreal) to design, prototype, and implement digital games.
4. **Artistic and Visual Expression** – Apply skills in 2D/3D modeling, animation, texturing, and lighting to create compelling characters, environments, and game assets.
5. **Narrative and Storytelling** – Develop engaging stories, scripts, and interactive narratives that enhance immersion and emotional impact in digital games.
6. **User-Centered Design** – Integrate user experience (UX) and interaction design principles to create accessible, intuitive, and inclusive game interfaces and mechanics.
7. **Research & Critical Thinking** – Critically analyze games as cultural, artistic, and social artifacts, and apply research methods to improve design processes.
8. **Collaboration & Production** – Work effectively in multidisciplinary teams, demonstrating project management, leadership, and collaboration skills across the game development pipeline.

9. Ethics & Social Responsibility – Evaluate the ethical, cultural, and societal implications of digital games, designing inclusive, responsible, and meaningful player experiences.
10. Professional Development – Build and present a professional game design portfolio that reflects originality, technical expertise, and readiness for careers in the game industry or further academic studies.

Curriculum

1. Year Fall				
Course Code	Course Name	C	Crđ	ECTS
COMN104	Psychology	C	3	5
DGDE101	Design Principles	C	4	6
DGDE103	Introduction To Animation And Game Design	C	3	6
DGDE105	Introduction To Computer Graphics	C	3	5
UFLE01	Foreign Language Elective I (English)[1-2]	E	3	3
UTEC01	University Elective I[1-2]	E	3	5
Curriculum Total Credit:19 ECTS:30 Couse Number:6 Compulsory:4 Seçmeli:2				
1. Year Spring				
Course Code	Course Name	C	Crđ	ECTS
COMN204	Ethics In Profession	C	3	5
DGDE102	Game Analysis	C	3	8
DGDE104	Perception And Design Concepts	C	3	10
UFLE02	Foreign Language Elective II (English)[1-2]	E	3	3
UHTC01	History[1]	C	2	2
UHTC02	Turkish[1]	C	2	2
Curriculum Total Credit:16 ECTS:30 Couse Number:6 Compulsory:5 Seçmeli:1				
2. Year Fall				
Course Code	Course Name	C	Crđ	ECTS
DGDE201	Game Programming Foundation	C	3	7
DGDE203	Sketching And Storyboarding	C	3	7
DGDE205	Game Art And Aesthetics	C	3	6
DGDE207	3D Modelling, Texturing And Lighting I	C	3	6
UFEC101	Personal Development	E	3	4
Curriculum Total Credit:15 ECTS:30 Couse Number:5 Compulsory:4 Seçmeli:1				
2. Year Spring				
Course Code	Course Name	C	Crđ	ECTS
DGDE202	3D Modelling, Texturing And Lighting II	C	3	6
DGDE204	2D Animation	C	3	7
DGDE206	Organic Modelling	C	3	7

DGDE262	Interaction Design	C	3	6
UFRC02	University Elective II[1-23]	E	3	4
Curriculum Total Credit:15 ECTS:30 Course Number:5 Compulsory:4 Seçmeli:1				
3. Year Fall				
Course Code	Course Name	C	Crd	ECTS
DGDE305	3D Animation	C	3	5
DGDE307	Game Development I	C	3	6
DGDE355	Digital Content Production	C	3	6
DGDE363	User Experience	C	3	7
DGEL01	Technical Elective I[1-6]	E	3	6
Curriculum Total Credit:15 ECTS:30 Course Number:5 Compulsory:4 Seçmeli:1				
3. Year Spring				
Course Code	Course Name	C	Crd	ECTS
COMN352	Research Methods	C	3	6
DGDE308	Game Development II	C	3	6
DGDE360	Branding And Identity Design	C	3	6
DGDE364	Motion Design	C	3	6
MISY306	Human Computer Interaction	C	3	6
Curriculum Total Credit:15 ECTS:30 Course Number:5 Compulsory:5 Seçmeli:0				
4. Year Fall				
Course Code	Course Name	C	Crd	ECTS
DGDE401	Graduation Project I	C	6	6
DGDE403	Level Design And Mechanics	C	3	6
DGEL02	Technical Elective II[1-6]	E	3	6
DGEL03	Technical Elective III[1-6]	E	3	6
DGEL04	Technical Elective IV[1-6]	E	3	6
Curriculum Total Credit:18 ECTS:30 Course Number:5 Compulsory:2 Seçmeli:3				
4. Year Spring				
Course Code	Course Name	C	Crd	ECTS
DGDE402	Graduation Project II	C	6	7
DGDE404	Artificial Intelligence In Game Design	C	3	5
DGEL05	Technical Elective V[1-6]	E	3	6
DGEL06	Technical Elective VI[1-6]	E	3	6
DGEL07	Technical Elective VII[1-6]	E	3	6
Curriculum Total Credit:18 ECTS:30 Course Number:5 Compulsory:2 Seçmeli:3				

Laboratory and Equipment Capacity (if applicable)

Computer Lab with 30 computers

Career Opportunities

Graduates of the Digital Game Design program are equipped with the creative, technical, and analytical skills needed to pursue diverse roles in the global game industry and related creative sectors. With expertise in design, storytelling, programming, and production, they can work across entertainment, education, simulation, and interactive media. Possible career paths include:

- Game Designer (mechanics, systems, and gameplay)
- Level Designer
- Narrative Designer / Game Writer
- Game Programmer / Developer
- UI/UX Designer for Games
- Game Artist (2D/3D)
- Character Designer / Animator
- Environment & Concept Artist
- Technical Artist
- Quality Assurance (QA) / Game Tester
- Producer / Project Manager in game development teams
- Motion Graphics and Interactive Media Designer
- Serious Games / Educational Game Developer

Graduates may also extend their expertise into related creative industries such as animation, film, advertising, interactive applications, and virtual/augmented reality (VR/AR). In addition, they are well-prepared to continue with postgraduate studies in game design, digital media, or related disciplines, opening pathways into academic research and teaching.

Contact Information

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COURSE CATALOGUE DESCRIPTIONS

DGDE101 Design Principles

This course introduces the basic elements and principles of design such as balance, contrast, rhythm, hierarchy, and unity. Through theoretical and practical exercises, students learn how to create effective visual compositions. The course encourages experimentation and critical analysis, laying a foundation for more advanced design work.

DGDE103 Introduction to Animation and Game Design

The concept of game from ancient times to the present day and the status and structure of new digital games today will be examined and information about the history of digital game will be conveyed. In this context, firstly the history of games, chance games, sports games, animation and will be covered, and then the emergence and development of computer and video games starting from the 1950s and their technological and economic transformation will be studied.

DGDE105 Introduction to Computer Graphics

This course offers a foundation in computer graphics principles and tools for creating digital content. Students will learn about raster and vector graphics, color theory, typography, and composition. Through hands-on exercises with software like Adobe Photoshop and Illustrator, they will develop skills in image editing, layout design, and digital illustration, focusing on creative problem-solving and visual communication for game design and interactive media.

DGDE102 Game Analysis

The ability to think, speak and write about games is essential to success in the game development industry. In this course, students will learn what are the artistic and gameplay features that are important in games, to evaluate games from the perspective of the aims of game designers, what to expect from the games and critics, etc. Additionally, this course aims to help students develop their critical understanding about the factors that make games artistic and successful.

DGDE104 Perception and Design Concepts

This course examines how perceptual psychology and cognitive processes impact game design. Students will learn about color, form, space, motion, and visual hierarchy, focusing on creating effective, user-centered designs. Through lectures and design exercises, they will gain insights into how perception influences communication and aesthetics in visual media.

DGDE207 3D Modelling, Texturing, and Lighting I

It aims to provide information about software in digital game design and game modelling. In this framework it is aimed to teach students the basic knowledge of 3D modelling with AutoCAD, Maya, Blender, 3D Max software.

DGDE201 Game Programming Foundation

The Game Programming Foundation course is designed to provide students with a comprehensive introduction to the world of game development. This course covers the fundamental principles of game design, programming, and the use of game engines to create interactive and engaging digital games. By the end of the course, students will have acquired the skills needed to develop simple games and an understanding of the game development pipeline.

DGDE203 Sketching and Storyboarding

The Sketching and Storyboarding course provides students with the foundational skills to effectively communicate ideas and narratives visually. This course focuses on the principles and techniques of sketching and story-boarding, covering the processes used in animation, film, advertising, and game development. Students will learn how to create compelling visual stories, develop storyboards, and refine their drawing skills to enhance their storytelling capabilities.

DGDE205 Game Art and Aesthetics

The Game, Art, and Aesthetics course explores the integral role of visual design, artistic direction, and aesthetic principles in game development. Students will learn how art influences game experiences and the ways aesthetic choices shape gameplay, narrative, and player engagement. This course covers a range of topics including visual storytelling, character design, environmental art, and the use of color and style in creating immersive game worlds.

DGDE202 3D Modelling, Texturing and Lighting II

3D modelling is an in-depth introduction to creating 3D objects in a computer environment. Topics include hard surface modelling techniques, polygonal and NURBS Modelling, and workflows for 3D modelers. Topics include 3D graphics pipeline, from reading an article 3D file to producing and image on the screen, as well as the algorithms and structures of 3D graphics; game engines including rotation and position of objects in 3D space; camera controls, including perspective and field-of-view; lightening and shading rendering, animation; and interactivity.

DGDE204 2D Animation

This course covers the basics of 2D animation, focusing on expressive visuals for digital games and interactive media. Students will learn frame-by-frame animation, keyframing, timing, and motion through both traditional and digital techniques. Key areas include character movement, facial expressions, and visual storytelling. Using industry-standard software, students will create animated sequences that convey weight, emotion, and anticipation. The course also addresses workflows for integrating 2D animations into game engines, preparing students for animation and game design production environments.

DGDE206 Organic Modelling

In this course, students will learn to create highly detailed creatures, characters, and props for both film and games. Students will learn a variety of techniques for working with high density poligon meshes and 3D painting to generate detailed texture and normal maps. This course aims

to investigate advanced modelling techniques and the quick generation of concepts for 3D models. An emphasis will be placed on developing efficient pipelines to streamline the entire process from modelling to rendering.

DGDE262 Interaction Design

This course provides a high-level overview of the essential concepts related to interaction design focusing on screen based interaction issues. During the course, students will become familiar with the elements of visual representations by using various tools and applications that are commonly used in professional interaction design work.

DGDE305 3D Animation

The 3D Animation course is designed to equip students with the skills and knowledge required to create captivating 3D animations. Covering the entire animation pipeline, from concept to final render, this course provides hands-on experience in modeling, rigging, animating, texturing, lighting, and rendering. Students will learn to use industry-standard tools to bring their creative ideas to life and understand the principles of animation to produce realistic and expressive animated sequences.

DGDE307 Game Development I

This course introduces foundational concepts in digital game development using industry-standard game engines like Unity. Students will explore topics such as game architecture, object-oriented scripting, and basic user interfaces, primarily focusing on 2D game design. Emphasis on gameplay mechanics and player interaction will be paired with hands-on projects that provide practical experience in game logic and asset management, preparing students for advanced development in future courses.

DGDE355 Digital Content Production

This course covers the planning, creation, and management of multimedia content for digital platforms, focusing on storytelling and audience engagement. Students will explore video, audio, motion graphics, and interactive elements used in games and apps. Through hands-on projects, they will learn production workflows, including planning, scripting, shooting, and editing. The course combines technical skills with creative strategies to create content suited for digital environments, preparing students for content-driven industries.

DGDE363 User Experience

This course offers an introduction to User Experience (UX) design principles, focusing on interactive media and digital games. Students will learn user-centered design processes such as research, personas, journey mapping, wireframing, prototyping, and usability testing. The course emphasizes creating intuitive user interfaces to enhance gameplay and digital interaction. Students will develop interactive prototypes and conduct evaluations to improve user satisfaction and accessibility, equipping them to create meaningful user experiences in game and media design.

DGDE308 Game Development II

This course enhances students' skills in creating complex digital games, covering both 2D and 3D environments. It focuses on advanced gameplay features like AI, animation control, event systems, camera dynamics, and performance optimization, while emphasizing genre-specific mechanics and player experience design. Students will complete a playable prototype, showcasing their understanding of game design, programming, and production workflows.

DGDE264 Motion Design

This course covers the principles of motion design with a focus on interactive media, digital storytelling, and game environments. Students will learn to design and animate visual elements using typography, shapes, and sound. Through hands-on projects, they will create title sequences, animated UI elements, and in-game motion graphics using industry-standard software. The course emphasizes timing, rhythm, transitions, and compositing techniques to enhance user engagement and game aesthetics.

DGDE360 Branding and Identity Design

This course centers on developing brand identities and visual systems. Students will examine the strategic and emotional components of branding, including brand storytelling, tone of voice, and audience perception. Projects will encompass logo design, color palettes, typography, and the creation of brand guidelines. The course emphasizes the importance of consistency, adaptability, and meaningful design in identity development across both physical and digital platforms.

DGDE401 Graduation Project I

This course allows students to design and develop a complete digital game project from concept to prototype. Students will demonstrate their understanding of game design principles, including ideation, documentation, asset creation, programming, and playtesting. Each student or team will deliver a playable game prototype and a production file with a game design document, development log, and visual documentation, with an emphasis on originality, technical execution, and user experience.

DGDE403 Level Design and Mechanics

This course covers the principles of level design and gameplay mechanics in digital games. Students will explore spatial design, player navigation, challenge balancing, and narrative flow. Through practical exercises, they'll design levels for different genres, focusing on player engagement, pacing, and reward systems. Core gameplay mechanics, including movement, obstacles, power-ups, AI behavior, and interactive elements, will also be addressed. Students will prototype and test their levels using industry-standard game engines, learning to iterate based on feedback.

DGDE402 Graduation Project II

This course replicates the structure of Graduation Project I, allowing students to complete a second full-cycle game development project. It encourages exploration of different genres, platforms, or gameplay mechanics while applying advanced production skills. The course culminates in a public presentation or demonstration of the final project, along with a design report and promotional materials, marking the completion of their academic journey in digital game design.

DGDE404 Artificial Intelligence in Game Design

This advanced course focuses on integrating Artificial Intelligence (AI) in game design to enhance gameplay experiences. Students will learn AI techniques for non-player characters (NPCs), enemy behaviors, procedural systems, and dynamic balancing. Key concepts include finite state machines, pathfinding algorithms, decision trees, behavior trees, and the basics of machine learning. Through project-based learning, students will design AI-driven mechanics using professional game engines, emphasizing both technical execution and player-centric design for immersive interactivity.