

CURRICULUM

Valid from academic year 2026-2027

Faculty:	Faculty of Arts and Design
Study cycle:	Bachelor
Name of the master's degree program:	Game Design - Art and Visual Effects
Name of the qualification¹ acquired after graduation from the program:	Digital Assets Creator
Level of qualification (according to CNC/CEC):	Level 6
Awarded title:	Bachelor of Visual Arts
Duration of studies (in years):	3
Number of ECTS:	180
Form of education:	Full-time education (FE)
Language:	English language
Geographical location of your studies:	Timisoara, Romania
Framing the study program in science fields	
Fundamental domain:	Arts and humanities
Branch of science:	Arts
Field of bachelor studies:	Visual Arts
Name of the <u>broad</u> field of study (according to DL-ISCED F-2013):	02 Arts and humanities
Name of the <u>narrow</u> field of study (according to DR-ISCED F-2013):	021 Arts
Name of the <u>detailed</u> field of study (according to DDS-ISCED F-2013):	0211 Audio-visual techniques and media production

¹ *Qualification (qualification)* is the formal outcome of an assessment and validation process, which is obtained when a competent body/authority determines that a person has achieved learning outcomes corresponding to predetermined standards. Qualifications acquired by graduates of higher education study programs are attested by diplomas, certificates and other evidence of qualifications issued only by accredited higher education institutions.

OVERVIEW OF THE STUDY PROGRAM

1. Mission of the study program²

The mission of the Bachelor's Degree Programme in Game Design- Art and Visual Effects (EQF Level 6) is both to train specialists and to develop applied research, generating and transferring knowledge to society through:

- a) individual and collective creation in the field of Visual Arts, with a focus on the artistic dimension of Design and Visual Effects for digital game productions and related media;
- b) the development of applied research at a fundamental level in the fields of Art, Design and Visual Effects (Gaming), as well as the dissemination and valorisation of research outcomes at national and international level;
- c) undergraduate-level training, leading to:
 - the acquisition of fundamental and specialised professional competences required for visual creation in the game industry and interactive media;

² The mission and objectives of the study programme must be in line with the mission of the West University of Timisoara and with the requirements identified on the labour market.

According to the University Charter (Article 5), **the general mission of WUT is advanced education and research, generating, transferring and certifying knowledge to society through:**

- (a) initial and continuous undergraduate and postgraduate training, for the professional and personal development of students, doctoral students and trainees, as well as for the labour market insertion of graduates and to meet the need for competence of the socio-economic environment;
- (b) scientific research, development, innovation and technology transfer, through individual and collective creation, relevant to the progress of knowledge and the socio-economic environment;
- (c) community involvement, by carrying out joint activities for the benefit of the university and the social, economic and cultural environment.

WUT assumes its own mission as a catalyst for the development of Romanian society by creating an innovative and participatory environment of scientific research, learning, cultural and artistic creation and sports performance, transferring skills and knowledge to the community through education, research and consultancy services that it offers to partners in the economic and socio-cultural environment, as well as by training and promoting democratic values, the rule of law and fundamental rights and freedoms, preparing active and involved citizens in society.

The fulfilment of the mission of WUT is concretised in (article 6 of the WUT Charter):

- promotion of scientific research, development and innovation, technology transfer, literary and artistic creation and sporting performance;
- initial and continuous training of qualified and highly qualified human resources;
- development of critical thinking and creative potential of the members of the university community;
- creating, hoarding and disseminating the values of human culture and civilisation;
- promoting multicultural, multilingual and interfaith interferences;
- affirming Romanian culture and science in the world circuit of values;
- developing Romanian society within the framework of a free and democratic state based on the rule of law;
- affiliation to European university alliances.

- the rapid professional integration of graduates in fields such as digital art, game design, animation, visual effects (VFX), and related media production sectors;
- meeting the national and regional demand for creative and technical human resources in digital art and design within the creative industries.

The mission of the Bachelor's Programme in GameDesign- Art and Visual Effects is achieved through the following objectives:

- a) promoting creation, critical thinking, and early-stage applied research focused on art, design, and visual effects within video games and other interactive media productions;
- b) training specialists at undergraduate level with a solid foundation of theoretical knowledge and practical skills in digital art, 2D/3D modelling, animation, UI/UX design, and visual effects for game productions;
- c) stimulating the creative and entrepreneurial potential of the university community in national and European contexts, including through participation in initiatives such as the European University Consortium "UNITA".

2. Expected competences and learning outcomes formed within the study program

A. COMPETENCES³

Key competences:⁴

- Cultural awareness and expression competence
- Science, technology, engineering and mathematics (STEM) competence
- Digital competence
- Multilingual competence
- Personal, social and learning-to-learn competence
- Citizenship competence
- Entrepreneurship competence

Professional competences:⁵

³ *Competence* is the demonstrated ability to select, combine and make appropriate use of personal, social and/or methodological knowledge, skills and abilities and other acquired values and attitudes, for the successful resolution of a given set of work or learning situations, and for professional or personal development in an effective and efficient way.

⁴ *The key competences for lifelong learning* are those competences that all citizens need for personal fulfilment and development, employment, social inclusion and active citizenship, and are developed in a lifelong learning perspective, starting from early childhood and throughout adult life, through formal, non-formal and informal learning.

⁵ *Occupational competences* are the ability to perform the activities required in the workplace to the level of quality specified in the occupational standard. They are acquired formally, i.e. by completing a program organized by an accredited institution.

- CP01. Analyse business requirements: Study clients' needs and expectations for a product or service in order to identify and resolve inconsistencies and possible disagreements of involved stakeholders.
- CP02. Compose digital game story: Create a digital game story by writing out a detailed plot and storyboard with descriptions and gameplay objectives.
- CP03. Create concept of digital game: Develop and communicate every aspect of overall game vision. Communicate and collaborate with technical crew, artistic and design teams to implement the game vision.
- CP04. Create digital game characters: Develop a typology of characters for digital games and identify their exact role in the gameplay and the narrative.
- CP05. Create software design: Transpose a series of requirements into a clear and organised software design.
- CP06. Define technical requirements: Specify technical properties of goods, materials, methods, processes, services, systems, software and functionalities by identifying and responding to the particular needs that are to be satisfied according to customer requirements.
- CP07. Design process: Identify the workflow and resource requirements for a particular process, using a variety of tools such as process simulation software, flowcharting and scale models.
- CP08. Specify digital game scenes: Describe scenes of digital games by communicating and cooperating with artistic crew, designers and artists in order to define the scope of the game's virtual environment.
- CP09. Formulate game rules: Compose a series of rules as to how to play a game.
- CP10. Manage online content: Ensure the website content is up to date, organised, attractive and meets the target audience needs, the requirements of the company and international standards by checking the links, setting the publishing time framework and order.
- CP11. Designs graphics: Apply a variety of visual techniques in order to design graphic material. Combine graphical elements to communicate concepts and ideas.
- CP12. Use markup languages: Utilise computer languages that are syntactically distinguishable from the text, to add annotations to a document, specify layout and process types of documents such as HTML
- CP13. Animate 3D organic forms: Vitalise digital 3D models of organic items, such as emotions or face movements of characters and place them in a digital 3D environment.
- CP14. Apply 3D imaging techniques: Implements a variety of techniques such as digital modeling, curve modeling, and 3D scanning to create, edit, preserve, and use 3D images such as point clouds, 3D vector graphics, and 3D surface shapes.
- CP15. Create 3D environments: Develops computer-generated 3D representations of a setting such as a simulated environment, in which users interact.
- CP16. Create 3D characters: Develop 3D models by transforming and digitising previously designed characters using specialised 3D tools
- CP17. Estimate duration of work: Produce accurate calculations on time necessary to fulfil future technical tasks based on past and present information and observations or plan the estimated duration of individual tasks in a given project.

- CP18. Operate 3D computer graphics software: Use graphical ICT tools, such as Autodesk Maya, Blender, Houdini which enable digital editing, modelling, rendering and composition of graphics. These tools are based on mathematical representation of three-dimensional objects.
- CP19. Perform resource planning: Estimate the expected input in terms of time, human and financial resources necessary to achieve the project objectives.
- CP20. Analyse a script: Break down a script by analysing the dramaturgy, form, themes and structure of a script. Conduct relevant research if necessary.
- CP21. Provide multimedia content: Develop multimedia materials such as screen shots, graphics, slide shows, animations and videos to be used as content integrated in a broader informational context.
- CP22. Develop animations: Design and develop visual animations using creativity and computer skills. Make objects or characters appear lifelike by manipulating light, colour, texture, shadow, and transparency, or manipulating static images to give the illusion of motion.
- CP23. Create moving images: Create and develop two-dimensional and three-dimensional images in motion and animations.
- CP24. Adapt to type of media: Adapt to different types of media such as television, movies, commercials, and others. Adapt work to type of media, scale of production, budget, genres within type of media, and others.
- CP25. Study media sources: Study various media sources such as broadcasts, print media, and online media in order to gather inspiration for the development of creative concepts.
- CP26. Convert into animated object: Convert real objects into visual animation elements, using animation techniques such as optical scanning.
- CP27. Render 3D images: Use specialised tools to convert 3D wire frame models into 2D images with 3D photorealistic effects or non-photorealistic rendering on a computer.
- CP28. Analyse software specifications: Assess the specifications of a software product or system to be developed by identifying functional and non-functional requirements, constraints and possible sets of use cases which illustrate interactions between the software and its users.
- CP29. Create a process diagram: Create a diagram that illustrates the systematic progress of a procedure or system using connecting lines and a set of symbols.
- CP30. Develop the game engine: Create a virtual software framework that abstracts the details of performing common game-related operations.
- CP31. Use software libraries: Utilise collections of codes and software packages which capture frequently used routines to help programmers simplify their work.

Transversal competences:⁶

- CT1. The ability to meet deadlines, work in a team, but also in conditions of autonomy, demonstrating creativity, flexibility and adaptability in solving tasks.

⁶ *Transversal competences* represent the value and attitudinal acquisitions that go beyond a specific field/program of study and are expressed by the following descriptors: autonomy and responsibility, social interaction, personal and professional development.

CT2. Finish project within budget: Make sure to stay within budget. Adapt work and materials to budget.

CT3. Follow a brief: Interpret and meet requirements and expectations, as discussed and agreed upon with the customers.

CT4. Follow work schedule: Manage the sequence of activities in order to deliver completed work on agreed deadlines by following a work schedule.

B. EXPECTED LEARNING OUTCOMES⁷

a) **Knowledge⁸** - According to *the European Qualifications Framework (EQF)*, the learning outcomes of **level 7 qualifications**, corresponding to master's level studies, require *highly specialized knowledge and critical awareness, some of which is at the forefront of knowledge in a field of work or study, as a basis for original thinking and/or research*:

c01. Knows the structure and operating principles of software libraries, reusable code components, and how they optimize programming processes.

c02. Identify the basic principles of interactive storytelling, script structure, and the elements of character and conflict construction in digital games.

c03. Know the main stages and defining moments in the evolution of video games, from their origins to the present.

c04. Argue the principles of digital game design, game concept structure, gameplay elements, visual aesthetics, and user experience dynamics.

c05. Comprehend how technological advancements have influenced aesthetic and narrative changes throughout the history of video games.

c06. Identify the principles of character design, narrative typologies, and the relationship between visual design, functional role, and psychological identity of the character.

c07. Describe the basic principles of software design, application architecture, and the stages of transforming requirements into functional specifications.

c08. Illustrates the principles of defining technical specifications and the methodologies for analyzing requirements for products, services, or software systems.

c09. Describe the principles of process design, workflow structure, and methods for analyzing the resources required for implementation.

c10. Distinguish the principles of visual composition, environment design, and the narrative structure of scenes within a digital game.

c11. Highlights the principles of gameplay design, the logic of game mechanics, and the relationship between rules, objectives, and user experience.

⁷ *Learning outcomes* are statements that refer to what a learner knows, understands and is able to do at the end of a learning process and are defined as knowledge, skills, responsibility and autonomy.

⁸ *Knowledge* is the result of assimilating information through learning. Knowledge is the body of facts, principles, theories and practices related to a particular field of work or study. Knowledge is described as theoretical and/or factual. Knowledge is expressed by the following descriptors: knowing, understanding and using specific language, explaining and interpreting.

- c12. Knows the principles of digital content organization and management, international web standards, and the requirements for accessibility, navigation, and continuous updates.
- c13. Demonstrates command of core principles in digital graphic design: composition, typography, color, visual hierarchy, vector vs. raster, resolution, and color management; understands delivery standards for print and digital.
- c14. Identify the structure, syntax, and logic of markup languages (HTML, XML, Markdown), content hierarchy principles, and web standards (W3C, DOM, CSS).
- c15. Illustrates the principles of biomechanics, facial expressiveness, and natural motion, as well as rigging, skinning, and deformation methods used for 3D organic models.
- c16. Argues the fundamental principles of three-dimensional representation: geometric modeling, topology, spatial digitization, and point-cloud processing; understands the distinctions between parametric, procedural, and polygonal modeling.
- c17. Interprets the principles of spatial composition, visual architecture, and 3D environment construction; understands the relationship between environmental design, perspective, lighting, and interaction.
- c18. Expose the principles of artistic anatomy, proportions, expressiveness, and stylization of organic forms, as well as the full 3D character production pipeline (modeling, rigging, texturing, shading).
- c19. Reviewing the principles of planning and time management, duration-estimation techniques (PERT, Gantt, historical project analysis), and the relationship between resources, tasks, and deadlines.
- c20. Knows the fundamentals of 3D computer graphics, object geometry structure, rendering parameters, and mathematical concepts underlying three-dimensional representation (mesh, vertex, UV, shader).
- c21. Concludes the principles of project management, methods of resource allocation, and the relationship between objectives, budget, time, and team; understands cost-benefit concepts, productivity, and resource sustainability.
- c22. Understand dramaturgical principles, classical and modern narrative structures, character arcs, and the sequential logic of a script; understands the relationship between text, rhythm, and visual intent.
- c23. Mention multimedia production principles, digital formats (images, video, animation, infographics), and content integration standards for interactive or educational platforms.
- c24. Check the fundamental principles of animation (squash & stretch, timing, anticipation, arcs, appeal) as well as the basics of digital cinematography, lighting, and motion texturing.
- c25. Identify and analyze the cultural, economic, and social factors that have shaped the development of the video game industry.
- c26. Associated traditional and digital animation principles, concepts of visual rhythm, montage, and motion composition; understands the relationship between image, sound, and visual narrative.

- c27. Review the principles of financial planning, budgeting, and cost control in artistic and multimedia projects; understands the relationship between deliverable quality, resources used, and financial constraints.
- c28. Restates the structure, purpose, and terminology of a creative brief, methods for analyzing requirements, and principles of professional communication between the client and the creative team.
- c29. Reviewing the principles of time organization, sequential planning, and task management, as well as methods for coordinating workflow in creative and technical contexts.
- c30. Mention the technical, narrative, and aesthetic characteristics of the main types of media — television, cinema, advertising, digital platforms, and video games — and understands the differences in format, audience, and distribution.
- c31. Expose the principles of media analysis, content typologies (informational, commercial, artistic), narrative structures, and the socio-cultural impact of different forms of mass media.
- c32. Knows the principles of digital capture and three-dimensional reconstruction, optical scanning, photogrammetry, and motion capture technologies, as well as the stages of converting real objects into animated digital formats.
- c33. Recognize the principles of photorealistic and non-photorealistic rendering, light behavior in 3D environments, material and texture settings, and the computational algorithms involved in digital rendering.
- c34. Explain the principles of software analysis and design, classification of functional and non-functional requirements, structure of technical documentation, and methodologies for defining use cases.
- c35. Verify the principles of process modeling, standardized symbols used in diagrams (e.g., UML, BPMN, flowchart), and the rules for visual representation of informational, operational, or creative workflows.
- c36. Illustrate the principles of software architecture for game engines, modular structure (graphics, physics, sound, interface), programming languages used (C++, Python, C#, Blueprint), and concepts of real-time performance optimization.
- c37. Knows the principles of collaborative work, time management, professional communication methods, and ethics in creative and interdisciplinary contexts.

b) Skills⁹ - According to the *European Qualifications Framework (EQF)*, the learning outcomes of **level 7 qualifications**, corresponding to master's level studies, require *specialized skills for solving research and/or innovation problems, developing new knowledge and procedures and integrating knowledge from different fields*:

- a01. Selects and integrates software libraries and packages appropriate to the project's purpose to extend application functionalities.

⁹ *Skill* is the ability to apply and use knowledge to accomplish tasks and solve problems. Skills are described as either cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments). Skills are expressed by the following descriptors: application, transfer and problem solving, critical and constructive reflection, creativity and innovation.

- a02. Customizes and adapts library code to improve performance, compatibility, and system stability.
- a03. Develops scripts and plots adapted to game mechanics, integrating objectives, narrative progression, and visual rhythm.
- a04. Creates storyboards and scene descriptions that define the atmosphere, action, and player experience.
- a05. Integrate historical knowledge into research, documentation, and design activities in the field of interactive design.
- a06. Develops the overall game concept, defining theme, visual style, core mechanics, and narrative objectives. Prepares concept documentation (Game Design Document, Concept Bible).
- a07. Communicates and presents the game vision to artistic, technical, and production teams for coherent implementation of the core idea.
- a08. Provide critical arguments regarding the importance of particular games, designers, or technological innovations.
- a09. Develops visual and descriptive concepts for characters adapted to the narrative universe and game mechanics.
- a10. Models and details character appearance through sketches, model sheets, and expressive design, preparing them for digital production.
- a11. Analyzes project requirements and structures them into a logical development plan, defining modules, functions, and interfaces.
- a12. Uses appropriate programming tools and languages (e.g., C++, Python, Unreal Engine, Unity, Houdini) to translate concepts into functional applications.
- a13. Identifies clients' functional and technical needs and translates them into measurable and verifiable parameters.
- a14. Drafts clear specifications regarding materials, methods, processes, or functionalities, adapting them to project constraints.
- a15. Identifies process stages and defines the sequence of activities, resources, and their interdependencies.
- a16. Uses modeling and simulation tools (flowcharts, process analysis software, 3D or scale models) to optimize workflow efficiency.
- a17. Describes and documents game scenes, defining visual, spatial, and interactive elements in collaboration with the artistic and design teams.
- a18. Develops technical and visual sheets for virtual environments, specifying lighting, atmosphere, and the relationship between objects and characters.
- a19. Develops clear and coherent rule sets that define gameplay, progression, and interactions between players or elements.
- a20. Tests and adjusts the rules according to game balance and feedback obtained from prototypes or playtesting sessions.
- a21. Administers and updates online content, ensuring that information is accurate, relevant, and tailored to the target audience.

- a22. Checks links, publishing order, and graphical consistency of pages while complying with organizational policies and quality standards.
- a23. Produces consistent graphic assets, combining visual elements (images, shapes, type, icons) within a clear information architecture, aligned to brand identity and accessibility criteria.
- a24. Optimizes files for multi-channel use (print, web, social, motion) via professional workflows (layers, styles, export presets), delivering in correct formats and color profiles.
- a25. Writes, edits, and validates markup code to define structure and presentation of digital content.
- a26. Integrates markup with styles and scripts, adapting it to various platforms and devices (responsive design, accessibility tags, metadata).
- a27. Applies 3D animation techniques for organic forms, simulating gestures, facial expressions, and subtle movements that convey intent, emotion, and personality.
- a28. Integrates animations into complex digital 3D environments using motion curves, keyframes, motion capture, and retargeting tools.
- a29. Applies digital modeling, 3D scanning, and reconstruction techniques to create and edit complex forms integrated into design, art, or digital-heritage workflows.
- a30. Optimizes and converts 3D files across formats, preparing data for visualization, animation, 3D printing, or augmented reality.
- a31. Models and textures architectural, natural, or artificial elements to build coherent 3D environments using specialized software (Blender, Maya, Unreal Engine, Houdini etc.).
- a32. Integrates objects, materials, lighting, and atmospheric effects to create realistic or stylized ambiances optimized for interactive experiences.
- a33. Models 3D characters by digitizing and interpreting two-dimensional visual concepts using dedicated tools (ZBrush, Blender, Maya, etc.).
- a34. Optimizes the topology, structure, and materials of the character for efficient animation and rendering within game engines.
- a35. Analyzes task requirements and complexity to produce realistic estimates for the duration of creative, production, or post-production activities.
- a36. Uses digital planning tools (e.g., Trello, Notion, Jira, MS Project) to monitor progress and adjust predictions according to the actual workflow pace.
- a37. Competently uses specialized software (Autodesk Maya, Blender, 3ds Max, Cinema 4D, Houdini, etc.) for modeling, editing, and visual composition.
- a38. Configures rendering settings, materials, and lighting to generate high-quality 3D images tailored to the artistic or technical purpose of the project.
- a39. Assesses the required human, material, and financial resources for each project phase, formulating balanced and realistic allocation plans.
- a40. Uses digital planning and monitoring tools (e.g., Microsoft Project, Notion, Jira, Airtable) to track costs, time, and team performance.
- a41. Breaks down the script into analyzable narrative units (scenes, sequences, beats), identifying themes, symbols, and conflict structures.

- a42. Conducts thematic, historical, or visual research to strengthen the script's context and formulate coherent interpretations.
- a43. Develops original visual and audiovisual materials (screenshots, graphics, animations, videos) using professional software (Adobe Creative Cloud, Blender, DaVinci Resolve, etc.).
- a44. Integrates multimedia content into broader informational contexts (presentations, apps, websites, educational platforms), ensuring visual coherence and narrative clarity.
- a45. Designs and develops visual animations by combining elements of form, light, color, and motion to create the illusion of life and expressiveness.
- a46. Uses dedicated software (After Effects, Blender, Toon Boom, Unreal Engine, Houdini etc.) to animate objects, characters, and scenes, coherently integrating them into visual production pipelines.
- a47. Employ academic sources, digital archives, and visual materials to substantiate analyses and presentations concerning the historical development of video games.
- a48. Creates two-dimensional and three-dimensional moving images using animation and compositing software (After Effects, Blender, Nuke, etc.), integrating visual and sound elements.
- a49. Applies visual effects, transitions, and color corrections to enhance image quality and animated sequence coherence.
- a50. Monitors expenses and allocation of material and human resources, adjusting project stages to remain within the established budget.
- a51. Identifies creative and efficient solutions to optimize costs without compromising the artistic or technical quality of the project.
- a52. Accurately interprets the information and expectations from the brief, translating requirements into coherent visual, functional, or narrative solutions.
- a53. Communicates proactively with the client to clarify requirements, providing creative proposals and adapting solutions according to feedback received.
- a54. Plans and prioritizes daily activities and project stages according to deadlines, resources, and established delivery objectives.
- a55. Monitors task progress, anticipates delays, and adjusts the work schedule to maintain compliance with agreed deadlines.
- a56. Adapts creative processes, production workflows, and visual deliverables according to the specific medium, production scale, and project budget.
- a57. Selects techniques and tools suitable for each media channel (film, TV, web, VR/AR, games), optimizing formats and duration for maximum impact and technological compatibility.
- a58. Analyzes content from diverse sources — broadcasts, print, visual publications, and online platforms — to identify trends, visual styles, and relevant conceptual approaches.
- a59. Selects and documents visual, audio, and textual references for developing original creative concepts adapted to the project context.
- a60. Applies visual data acquisition and processing methods to digitize real objects, generating 3D models ready for integration into animations.
- a61. Optimizes converted models through cleaning, retopology, and rigging, preparing them for animation, simulation, or augmented reality.

- a62. Configures lighting parameters, cameras, materials, and shadows to transform 3D models into high-quality 2D images.
- a63. Uses rendering tools and engines (e.g., Cycles, V-Ray, Arnold, Octane, Unreal Engine, Houdini) to generate photorealistic or stylized images while optimizing processing time and performance.
- a64. Evaluates the technical specifications of a software product, identifying constraints, dependencies, and interaction scenarios between the system and the user.
- a65. Interprets and organizes software requirements using analysis models (e.g., UML, BPMN, user stories), preparing the necessary documentation for design and development phases.
- a66. Builds process diagrams that describe the logical stages of a procedure or system using specialized visual tools (Lucidchart, Draw.io, Miro, Figma, etc.).
- a67. Integrates symbols, connectors, and decision conditions to highlight sequence, branching, and feedback within the analyzed process.
- a68. Designs and develops core components of a game engine — object management, scene rendering, collision logic, and input/output systems.
- a69. Integrates existing modules and external APIs (OpenGL, Vulkan, DirectX, Unreal Engine SDK, etc.) to extend functionality and create a scalable development framework.
- a70. Collaborates effectively in multidisciplinary teams, contributing actively to achieving common goals and managing complementary roles in creative and implementation processes.
- a71. Organizes work autonomously, demonstrating creativity, adaptability, and the ability to meet project deadlines and requirements.

c) Responsibility and Autonomy¹⁰ - According to *the European Qualifications Framework (EQF)*, the learning outcomes for **level 7 qualifications**, corresponding to master's level studies, involve *managing and transforming work or learning situations that are complex, unpredictable and require new strategic approaches, by taking responsibility for contributing to professional knowledge and practice and/or reviewing the strategic performance of teams*:

- r01. Uses software libraries responsibly, adhering to licenses, professional standards, and best documentation practices.
- r02. Ensures narrative coherence and visual expressiveness of the story, collaborating with designers and programmers for its in-game implementation.
- r03. Coordinates the application of the game vision, ensuring coherence between concept, visual design, and technical execution.
- r04. Value cultural and creative diversity in the field and appreciate the role of international collaboration.
- r05. Ensures the visual and narrative coherence of characters in relation to the tone, style, and dynamics of the game.

¹⁰ *Responsibility and autonomy* means the learner's ability to apply knowledge and skills autonomously and responsibly.

- r06. Ensures clarity and reliability of the software design, collaborating with technical and creative teams for efficient implementation of solutions.
- r07. Ensures the technical coherence of requirements and communicates effectively with project teams to implement them according to established standards.
- r08. Ensures the clarity, efficiency, and reproducibility of the process, documenting stages and execution standards.
- r09. Ensures the aesthetic and functional coherence of scenes, contributing to the consistent implementation of the game's visual universe.
- r10. Ensures the coherence and fairness of the rule system, documenting the logic and adjustments made during game development.
- r11. Ensures the professional image and functionality of the online platform by maintaining content that is attractive, current, and well-structured.
- r12. Secures end-to-end visual quality (consistency, legibility, technical compliance), documents versions, and maintains design decision traceability against project objectives.
- r13. Ensures compliance with web standards and cross-browser compatibility, maintaining code quality and version documentation.
- r14. Ensures expressive realism and stylistic coherence of organic animations, collaborating with the rigging, lighting, and compositing teams for optimized deliverables.
- r15. Ensures the technical accuracy and visual integrity of 3D models, documenting the acquisition and editing process in accordance with professional standards.
- r16. Ensures the aesthetic and functional coherence of the 3D environment, managing visual quality and scene performance according to project specifications.
- r17. Ensures the aesthetic quality, stylistic coherence, and technical compliance of 3D characters within the artistic or interactive project context.
- r18. Manages time and contribution effectively within the team, taking responsibility for meeting deadlines and delivery standards.
- r19. Maintains the technical accuracy and aesthetic coherence of 3D projects, adhering to professional standards and documenting each stage of the digital process.
- r20. Manages project resources responsibly, optimizes their allocation according to priorities, and ensures decision transparency toward the team and stakeholders.
- r21. Critically analyses the script and proposes adaptation or rewriting solutions, contributing to the narrative coherence and expressive value of the production.
- r22. Manages the quality, consistency, and relevance of multimedia content while respecting copyright and ethical best practices in digital production.
- r23. Show responsibility and critical judgment in using sources and interpreting media content.
- r24. Evaluates and refines completed animations, ensuring aesthetic coherence, narrative clarity, and alignment with artistic or media project objectives.
- r25. Manages the full process of creating moving images, from concept to final rendering, ensuring artistic and technical consistency of the visual output.
- r26. Takes responsibility for managing the budget, documenting financial decisions, and ensuring transparency and sustainability in resource utilization.

- r27. Respects the commitments established through the brief, maintaining balance between creative vision and contractual objectives, and taking full responsibility for final deliverables.
- r28. Demonstrates professional discipline and self-organization, ensuring project completion on time and in accordance with quality standards.
- r29. Demonstrates professional flexibility and the ability to adapt to various media ecosystems, ensuring artistic and technical coherence regardless of the distribution channel.
- r30. Applies a critical and ethical attitude in the use of media sources, ensuring information accuracy and respect for copyright.
- r31. Ensures the accuracy and authenticity of digital conversion while respecting ethical standards regarding the use and reproduction of real objects in virtual environments.
- r32. Ensures the aesthetic quality, technical accuracy, and stylistic consistency of rendered images, managing the export process and documentation of rendering settings.
- r33. Ensures the accuracy and relevance of the analysis, collaborating with the development team and stakeholders to clarify specifications and prevent implementation errors.
- r34. Ensures the clarity, readability, and logical coherence of the process diagram, documenting it as a communication and coordination tool within the project team.
- r35. Ensures stability, efficiency, and proper documentation of the developed game engine, collaborating interdisciplinarily with artists, designers, and programmers for implementation and testing.
- r36. Takes responsibility for the quality of one's own contribution within the team and demonstrates initiative, flexibility, and professional ethics in solving complex tasks.

3. Occupations that can be practiced on the labor market

Digital game designer – ESCO code 2166.6

Special effects artist – ESCO code 2166.13

Other occupations for which the program develops competences

Digital games developer – ESCO code 2513.1

4. Providing flexible learning pathways within the study program

Within the Bachelor's degree programme GameDesign- Art and Visual Effects, flexibility is ensured through the component of optional, elective, and complementary courses. The optional courses enrich and nuance both the content and the flexible developmental pathway of the graduate. From an epistemic perspective, the optional courses define specific learning pathways by tailoring the content. These optional courses are offered in semesters 3, 4, and 5, grouped into packages of three courses each, which complete the student's specialization track. Students choose their pathway before the start of the academic year corresponding to the semesters that include the optional courses or course packages. The Bachelor's programme includes a total of 140 hours of optional courses. These courses refine the individual flexible pathway at an axiological level, offering distinct, yet convergent, competencies, skills, and elements of responsibility and autonomy, in line with ESCO.

The optional courses are proposed for semesters 3–5 and are grouped into packages of three, which complete the student's specialization pathway. The choice of pathway is made by the student before the beginning of each academic year.

Year II, semesters I and II

- Sound Design for Interactive Media
- Hard Surface Modeling
- Spatial Design and Narrative Architecture in Video Games
- Python for VFX AI Automation (Maya/Nuke Scripting)

Year III, semester I

- Photogrammetry & LiDAR Scanning
- Motion Graphics & Interactive Design
- CGI & Green Screen Techniques

Elective courses are offered in semesters 1–6 by the Department of Design and Applied Arts, which coordinates the study programme, but students may also choose from the elective packages offered by other faculties within West University of Timișoara (UVT). Through these elective courses, students may further individualize their learning pathways by enrolling in Volunteering (semesters 1–6) and Entrepreneurship Skills – Practical Applications (semester 4). These complement another mandatory complementary course, Entrepreneurship Skills, both designed to equip students with specific entrepreneurial competencies, as many graduates become certified freelancers.

At West University of Timișoara, all Bachelor's degree curricula must include one complementary course that develops transversal competencies in each of semesters 4 and 5.

Students select these from an annual offering of over 160 courses from fields other than their own (the catalogue of complementary courses that generate transversal competencies for UVT Bachelor's students can be consulted on the platform www.dct.uvt.ro). Also, all the curricula of the bachelor's degree programs contains the Physical Education discipline with mandatory status, for a duration of three semesters (year I, semester I, year II, semesters I and II) and with an optional nature, for a duration of one semester (year I, semester II), with students having the opportunity to opt for a wide range of sports disciplines in each semester.

In accordance with the *Regulation on the initiation, development, monitoring, and periodic review of study programmes and fields at West University of Timișoara*, and of their corresponding curricula, and to ensure that students may receive credits for volunteering activities under the provisions of the Higher Education Law no. 199/2023, with subsequent amendments (Article 127, paragraph (9)), the Volunteering course is available every semester in the curricula of all Bachelor's and Master's programmes, as an elective course, with 2 ECTS credits.

Furthermore, in accordance with the provisions of the Regulation on the initiation, development, monitoring, and periodic review of university study programmes and fields of study at the West University of Timișoara, as well as their corresponding curricula, each WUT student, both during the bachelor's degree cycle and the master's degree cycle, may optionally participate in short-term educational programmes (e.g., blended intensive programmes, thematic schools, etc.) organized in a physical and/or hybrid format by WUT, by WUT partner higher education institutions within the European Higher Education Area (EHEA), or by other WUT partner entities, and may be awarded transferable study credits upon successful completion of such programmes. The successful completion of these educational programmes, the credits earned, and the competences/learning outcomes acquired by students (to the extent that these are specified in a supporting document issued by the programme organizer) shall be recorded in the Diploma Supplement. In order to benefit from these credits, students must submit proof of successful completion of the programme, issued by the organizer, to the Student InfoCenter within a maximum of 10 working days following the completion of the programme. The awarding of credits shall be approved by a committee composed of representatives of the WUT General Secretariat, appointed by decision of the Rector of WUT at the beginning of each academic year.

5. Professional activity and student assessment

The rights, obligations, and conditions for the professional activity of students at the West University of Timisoara are regulated by the *Code of Student Rights and Obligations and the Regulation on the professional activity of students in the bachelor's and master's degree study cycles at the WUT*, approved by the WUT Senate.

The methods of evaluation/examination for each subject in the curriculum are established by the subject sheets.

6. Final exam

In accordance with the *Regulation for the organizing and carrying out the graduation exams of the bachelor's and master's degree studies at the West University of Timisoara*, approved by WUT Senate, the final examination for the bachelor's degree in any bachelor's degree study program organized at the WUT consists of two parts:

- part 1: evaluation of fundamental and specialized knowledge: 5 credits;
- part 2: elaboration and presentation of the results of the bachelor's thesis: 5 credits.

The syllabus and corresponding bibliography for the final exams are published on the website of each faculty and/or on the WUT website before the beginning of each academic year.

Enrolment in the final exam is conditional upon the student choosing the subject of the final thesis no later than 60 days from the beginning of the academic year of the final year of studies.

The submission of the final version of the final paper on the e-learning platform must be made at least 5 working days before the scheduled starting date of the examination.

Each paper will be accompanied, at the time of submission, by the similarity report resulting from the verification of the originality of the final paper by a specialised software on the WUT e-learning platform.

In accordance with the structure of the academic year, at WUT the final exams can be organised in 3 sessions, usually in July, September and February.

7. Preparation for the teaching profession (if applicable)

Students who wish to opt for a teaching career in pre-university education must take (complementary to the present study program) and complete the *Psycho-pedagogical Training Program for the certification of competences for the teaching profession* and obtain the Certificate of Completion of this program. In the West University of Timisoara this program is organized through the Department for the Preparation of Teaching Staff (DPPD) and can be followed in parallel with undergraduate studies or in postgraduate studies. For more information, please visit: <https://dppd.uvt.ro>.

LIST OF STUDIED SUBJECTS, GROUPED BY YEAR AND SEMESTER

First year of studies

Academic year 2026-2027

No.	Subject	C1	C2	Subject code	Semester I					Semester II				
					Number of hours/week				Number of credits	Number of hours/week				Number of credits
					C	S	L	P		C	S	L	P	
1.	History of Video Games I	DF	DOB	FADLG1101	1	1			3					
2.	History of Video Games II	DF	DOB	FADLG1201						1	1			3
3.	Artistic Anatomy for Characters I	DF	DOB	FADLG1102	1		1		3					
4.	Artistic Anatomy for Characters II	DF	DOB	FADLG1202						1		1		3
5.	Visual Design for Digital Resources I	DF	DOB	FADLG1103	1		2		6					
6.	Visual Design for Digital Resources II	DF	DOB	FADLG1203						2		2		6
7.	Character Visual Design I	DF	DOB	FADLG1104	2		2		5					
8.	Character Visual Design II	DF	DOB	FADLG1204						1		2		5
9.	Storytelling, Scriptwriting, Storyboarding I	DS	DOB	FADLG1105	1		1		3					
10.	Storytelling, Scriptwriting, Storyboarding II	DS	DOB	FADLG1205						1		1		2
11.	Video Production & Post-Production I	DS	DOB	FADLG1106	1		2		4					
12.	Video Production & Post-Production II	DS	DOB	FADLG1206						1		2		4
13.	UI/XR Design for Immersive Experiences I	DS	DOB	FADLG1107	1		2		3					
14.	UI/XR Design for Immersive Experiences II	DS	DOB	FADLG1207						1		2		4
15.	Foreign Language (French, Italian, German) I	DC	DOP	FADLG1108		2			2					
16.	Foreign Language (French, Italian, German) II	DC	DOP	FADLG1208							2			2
17.	Physical Education I	DC	DOP	FADLG1109			1		1					

No.	Subject	C1	C2	Subject code	Semester I					Semester II				
					Number of hours/week				Number of credits	Number of hours/week				Number of credits
18.	Introduction to the Use of Generative Artificial Intelligence (GenAI)	DC	DOB	FADLG1209							1			
19.	Ethics and Academic Integrity	DC	DOB	FADLG1110	1				1					
20.	Academic Writing	DC	DOB	FADLG1210							1			1
21.	Professional Counseling and Career Guidance	DC	DOB	FADLG1101 1		1			1					
Total					9	4	1 1		30+2	9	4	10		30+1
Total teaching hours per week					24					23				

Elective subjects														
No.	Subject	C1	C2	Subject code	Semester I					Semester II				
					Number of hours/week				Numb er of credits	Number of hours/week				Numb er of credits
					C	S	L	P		C	S	L	P	
1.	Volunteering I	DC	DFA	FADLG1111				60*	2					
2.	Volunteering II	DC	DFA	FADLG1211									60*	2
3.	Physical Education IV	DC	DFA	FADLG1212								1		1

* the total number of hours for the Volunteering discipline is for one semester

Second year of studies

Academic year 2027-2028

No.	Subject	C1	C2	Subject code	Semester I				Number of credits	Semester II				Număr de credite
					Number of hours/week					Număr de ore/săptămână				
					C	S	L	P		C	S	L	P	
1.	Aesthetics of Digital Game Design I	DF	DOB	FADLG2101	1	1			3					
2.	Aesthetics of Digital Game Design II	DF	DOB	FADLG2201						1	1			3
3.	Game Development Management & Production I	DF	DOB	FADLG2102	1	1			3					
4.	Game Development Management & Production II	DF	DOB	FADLG2202						1	1			3
5.	Gameplay Mechanics Development I	DF	DOB	FADLG2103	1		2		4					
6.	Gameplay Mechanics Development II	DF	DOB	FADLG2203						1		2		4
7.	Animation, Rigging & Visual Effects (2D/3D) I	DF	DOB	FADLG2104	1		2		5					
8.	Animation, Rigging & Visual Effects (2D/3D) II	DF	DOB	FADLG2204						1		2		5
9.	Digital Sculpting for Gaming I	DS	DOB	FADLG2105	1		1		4					
10.	Digital Sculpting for Gaming II	DS	DOB	FADLG2205						1		1		4
11.	Sound Design for Interactive Media I	DS	DOP 1 out of 3	FADLG2106	1		2		5					
12.	Spatial Design and Storytelling Architecture in Video Games I			FADLG2107										
13.	Python Scripting for VFX and AI Automation I			FADLG2108										
14.	Sound Design for Interactive Media II	DS	DOP 1 out of 3	FADLG2206						1		2		5
15.	Spatial Design and Storytelling Architecture in Video Games II			FADLG2207										
16.	Python Scripting for VFX and AI Automation II			FADLG2208										
17.	Specialized Internship	DS	DOB	FADLG2109				3	2					
18.	Specialized Internship	DS	DOB	FADLG2209									3	2
19.	Foreign Language (French, Italian, German) III	DC	DOP	FADLG2110		2			2					
20.	Foreign Language (French, Italian, German) IV	DC	DOP	FADLG2210							2			2

No.	Subject	C1	C2	Subject code	Semester I					Semester II				
					Number of hours/week				Number of credits	Număr de ore/ săptămână				Număr de credite
21.	Physical Education II	DC	DOP	FADLG2111			1							
22.	Physical Education III	DC	DOP	FADLG2211								1		1
23.	Entrepreneurial Competences	DC	DOB	FADLG2112	1	1			2					
24.	Optional Course in Transversal Competences I	DC	DOP	FADLG2212						1	1			2
Total					7	5	8	3	30+1	7	5	8	3	30+1
Total teaching hours per week					23					23				

Elective subjects														
No.	Subject	C1	C2	Subject code	Semester I					Semester II				
					Number of hours/week				Numb er of credits	Number of hours/week				Numb er of credits
					C	S	L	P		C	S	L	P	
1.	Entrepreneurial Competences – Practical Applications	DC	DFA	FADLG2113								2		2
2.	Volunteering III	DC	DFA	FADLG2114				60*	2					
3	Volunteering IV	DC	DFA	FADLG2215									60*	2

* the total number of hours for the Volunteering discipline is for one semester

Third year of studies

Academic year 2028-2029

No.	Subject	C1	C2	Subject code	Semester I				Number of credits	Semester II				Număr de credite
					Number of hours/week					Număr de ore/ săptămână				
					C	S	L	P		C	S	L	P	
1.	Research Methodology I	DS	DOB	FADLG3101	1	1			3					
2.	Research Methodology II	DS	DOB	FADLG3201								2		5
3.	Concept Art I	DF	DOB	FADLG3102	1		2		4					
4.	Concept Art II	DF	DOB	FADLG3202						1		2		5
5.	AI and Generative Tools for Gaming and VFX I	DS	DOB	FADLG3103	2		1		4					
6.	AI and Generative Tools for Gaming and VFX II	DS	DOB	FADLG3203						1		1		5
7.	Game Art Pipeline I	DS	DOB	FADLG3104	1		4		7					
8.	Game Art Pipeline II	DS	DOB	FADLG3204						2		3		10
9.	Multidisciplinary Project for the Bachelor's Thesis I	DS	DOB	FADLG3105	1		4		7					
10.	Multidisciplinary Project for the Bachelor's Thesis II	DS	DOB	FADLG3205						2			8	5
11.	Photogrammetry & LiDAR Scanning	DS	DOP	FADLG3106	2		1		3					
12.	Motion Graphics & Interactive Design			FADLG3107										
13.	CGI & Green Screen Techniques			FADLG3108										
14.	Optional Course in Transversal Competences II	DC	DOP	FADLG3109	1	1			2					
Total					9	2	12		30	6		8	8	30
Total teaching hours per week					23					22				

Elective subjects														
No.	Subject	C1	C2	Subject code	Semester I				Number of credits	Semester II				Number of credits
					Number of hours/week					Number of hours/week				
					C	S	L	P		C	S	L	P	
1.	Volunteering V	DC	DFA	FADLG3110				6 0 *	2					
2.	Volunteering VI	DC	DFA	FADLG3210									6 0 *	2

* the total number of hours for the Volunteering discipline is for one semester

Legend

C1	content criteria
C2	mandatory criteria
DF	fundamental subjects
DS	specialization subjects
DC	complementary subjects
DOB	compulsory subjects (required)
DOP	optional subjects (of free choice)
DFA	elective subjects
CP	professional competence
CT	transversal competence
C	lecture-type teaching activity
S	seminar-type teaching activity
L	laboratory/practical work teaching activity
P	traineeship-type teaching activity

Subject code: <faculty><department><subject number>

GENERAL BALANCE SHEET I (by content criteria)

No.	Subject type	Total number of hours									% of total
		1 st year		2 nd year		3 rd year		Entire study program			
		Lectur e	S/L/P	Lectur e	S/L/P	Lectur e	S/L/P	Lectur e	S/L/P	Total	
1.	Fundamental subjects	140	168	112	168	28	56	280	392	672	34,78%
2.	Specialisation subjects	84	140	56	168	168	350	308	658	966	50,00%
3.	Complementary subjects	28	98	28	112	14	14	70	224	294	15,22%
TOTAL		252	406	196	448	210	420	658	1274	1932	100%

GENERAL BALANCE SHEET II (by mandatory criteria)

Nr. crt.	Subject type	Număr total de ore										Provision of specific ARACIS standard
		1st year		2nd year		3rd year		Entire study program			% of total	
		Lecture	S/L/P	Lecture	S/L/P	Lecture	S/L/P	Lecture	S/L/P	Total		
1.	Mandatory	252	336	154	294	168	392	574	1022	1596	82,61%	
2.	Optional	0	70	42	154	42	28	84	252	336	17,39%	min. 15%
TOTAL		252	406	196	448	210	420	658	1274	1932	100,00 %	
3.	Elective	0	120	0	148	0	120	0	402	402	20,81%	<i>Not included in totals</i>
Total practical application hours (S/L/P) / lecture hours								1,95				

Responsible of the study program,
lect. univ. dr. Lucian Valentin Ciorbă

Department Director,
prof. univ. dr. Iosif Mihailo

Dean,
prof. univ. dr. Diana Andreescu

Rector,
prof. univ. Marilen Gabriel PIRTEA

CORRELATION BETWEEN COMPETENCIES, EXPECTED LEARNING OUTCOMES, AND THE COURSES STUDIED

Correlation between expected learning outcomes with the subjects
studied and expected learning outcomes with key, professional and
transversal competences