Course: Project 3D Game Development — credits: 10

Course code	GTVP21P3D
Name	Project 3D Game Development
Study year	2023-2024
ECTS credits	10
Language	English
Coordinator	N.B.O. Lumatalale
Modes of delivery	Project-based learning
Assessments	Project 3D Game Development - Other assessment

Learning outcomes

Learning Outcomes
This course has 13 Programme Learning Outcomes, synthesised into eight Course Learning Outcomes that are assessed. The related competencies are listed in brackets after each Course Learning Outcome.

Programme Learning Outcomes
A1. The CMGT professional synthesises and situates diverse perspectives to develop informed and appropriate solutions to complex problems.
A3. The CMGT professional generates innovative concepts for technical solutions that are appropriate for complex contexts.
B2. The CMGT professional iterates with digital technology to improve technical solutions.
B3. The CMGT professional analyses and researches technological solutions to serve a wider goal. C1. The CMGT professional visualizes technological solutions by using relevant digital technologies.
C2. The CMGT professional develops digital interactive prototypes, using prototype development methods and techniques. C3. The CMGT professional experiments with digital technologies to elaborate concepts.
D2. The CMGT professional masters a range of user experience methods and techniques, including relevant theories, to improve the solution.
E1. The CMGT professional is capable of planning, implementing, monitoring, and managing process-based projects as part of a team and providing information on the progress.
E2. The CMGT professional delivers technological solutions through relevant channels and translates them to appropriate business solutions.
F2. The CMGT professional imagines innovative concepts and solutions to address previously unaddressed problems or situations.
G1. The CMGT professional manages their own development, is capable of formulating learning needs, can reflect on and takes responsibility for their own learning process.
G2. The CMGT professional operates and performs within a team, taking ethical and intercultural values into account.

Course Learning Outcomes

1. The student understands and can complete under guidance simple programming tasks. (A1, B2) (Programming and Developing)
2. The student understands and can use under guidance game audio and visualisation techniques to communicate their response to the design challenge. (C1, C3) (Audio and Visual Communication)
3. The student can apply under guidance simple user experience tools to guide their concepting process. (D2) (Concepting Research)
4. The student identifies and can use under guidance game design tools to construct an appropriate response to the design challenge. (A3) (Game Design Theory) (Demo)
5. The student is aware of the impact their solutions might have and can articulate them in their solution to the design brief. (A2, B3) (Concepting and Design) (Demo)

Content

In Project 3D Game Development, students will work in teams to address a chosen challenge from a range of available real-world challenges. Students will use concepting and 3D prototyping tools to create a prototype 3D solution to their design challenge. The prototype developed in this block will be developed into finished products by the same student team in the block 4 course 'Project Development and Evaluation'.

Design Brief
Games and playful design can be used to address real social challenges, from small scale (“How to get more people to use this service?”) to large scale (“How to change people's behaviour around recycling?”) and everything in between. The theme for this block is 'Spaces': nature spaces, public spaces, cultural spaces. The student will concept and develop a 3D game to address one of the cases around these spaces.

Design Constraints

- The game must be made using 3D tools (think Unity, Blender).
- The game concept must address the project briefing.
- The game concept must address the needs of the users of the given space (think Concepting research).
- The game must exist in prototype form, however basic.

In solving the design brief, student teams are supported by project coaches, and a series of workshops and learning streams, including 3D Asset Creation; 3D Programming; Game Design Tools; and Concepting Research.

Students are expected to put in the necessary hours and effort to have a tested concept and a working prototype of their game, and to have tested their game with fellow students.

The course is assessed via a demonstration, in which the working prototype is shown to teachers and fellow students; and by a development portfolio, assembled over the duration of the course, in which the student provides evidence of what they have done and what they have learned.

6. The student identifies and can implement under guidance appropriate prototyping tools to successfully communicate their solution to the design challenge. (C2, F2) (Prototyping) (Demo)
7. The student actively participates in the team, engaging with team members in ways that facilitate their contributions and proactively cooperating to complete needed tasks. (E1, G2) (Teamwork)
8. The student describes and gives examples of their own self-development, and uses this insight to plan for future learning. (G1) (Critical Reflection)

Included in programme(s)

Creative Media & Game Technologies

School(s)

School of Communication, Media & IT

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