# **Game Engineering**

Faculty of Engineering, Design and Computing, Department of Information Technology

#### When

6 February 2023 – 30 June 2023

Class days: 3 to 4 days (1 day off)

#### **General Information**

Audience: Bachelor ICT 3rd year with experience in ICT 30 European Credits (20 weeks) Where: Haarlem, the Netherlands

#### Teachers

Teachers of the Computer Science Haarlem study program and guest lectures and workshops by specialists from the field of game engineering.



#### About the course

Games are an integral part of our daily life. This form of entertainment has become a lifestyle and is consumed in every place at every moment of our existence.

Developing Games is a complex process. In the elective program "Game Engineering" you learn to program a multiplayer game from idea until it is in the (online) store. Within the Project, you will investigate in groups how your idea can be developed into a game concept.

When the concept is presented it will be judged on creativity and whether it is commercially feasible. After the concept has been written down, you will learn to control the 2D/3D engine in C # and make the game available to the online community.

Via Scrum<sup>®</sup> project management framework you learn to deal with a development group with a dynamic and rapidly changing world called games.

After this choice of education part, you will be able to work for an international multinationalor a game developer from SMEs as Jr. Game Engineer in the broadest sense.

# Work methods

In this theme we will use different workingmethods:

- Working in project groups
- Various lectures and guest lectures
- Seminars
- Practical visits
- Research

#### Details of assessments

- Project presentations: game pitch, proof of concept, vertical slice, alpha, beta, release candidate, gold master
- Individual code assessment

All assessments must be completed with a sufficient grade

# **Topics covered**

- Game Concept development
- Game Design document
- Game Mechanics [Rules of Play]
- Game Business models
- Game Analyst
- C # in Unity game engine [Project]
- Multiplayer games
- Game Mathematics
- Scrum project management
- Game Development management [Sourcecode managers and Asset servers]
- Research & Research trends
- Game testing

### Competences:

- The student is able to work via the Scrum<sup>®</sup> method.
- The student is able to develop a commercial idea.
- The student can design a game.
- The student can realize a game.
- The student is able to develop in a 2D / 3D game engine.
- The student is able to conduct an investigation.

# Goals

The student is able to:

- analyze target group, objective, context, information and communication needs, visualization, usability and use, and relatethis to trends in ICT
- Advising on new opportunities for the organization based on developments in ICT
- Designing ICT and / or digital media products based on self-designed functionality, interaction form, style and / or service, including user experience, usability testing and innovative technology.
- Determining the quality of the design, for example by testing or prototyping
- Realization and testing of dynamic ICT and / or digital media products with the application of innovative technologies

#### Contact

Sign up

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Questions

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