

# HIGHER NITEC IN GAMES PROGRAMMING & DEVELOPMENT

## Core Modules

### Game Design Principles

On completion of the module, students should be able to conduct market research, determine game genre and features, create game design documents, integrate game audio and craft gamification approaches. They will also be able to build and present mini prototypes.

### Programming Fundamentals

On completion of the module, students should be able to implement game programs, perform game debugging and code optimisation, refine game features, analyse game specifications and perform basic hardware troubleshooting.

### Game Programming

On completion of the module, students should be able to implement game programs, create game scenes, integrate game user interfaces (UI) and game audio. They will also be able to build and present mini prototypes.

### Interactive Development Techniques

On completion of the module, students should be able to analyse game design documents, conduct feasibility studies, evaluate game engines, implement game programs, implement AI in games and deploy games to server.

### Mobile Game Development

On completion of the module, students should be able to integrate game user interfaces (UI), apply physics in games, perform code optimisations and iterative development/rapid prototyping, generate technical documentations and implement multi-platform programming.

### Game Level Production

On completion of the module, students should be able to outline game stories, analyse user interface (UI) requirements, create game scenes, conduct peer review sessions and refine game designs.

### Games Integration and Testing

On completion of the module, students should be able to perform program integration, game debugging and source code management, create test plans, perform unit testing, conduct playability tests and create testing reports.

### Industry Attachment

Students are provided with the opportunity to work in actual games design and development environment.