

Description

This module is intended for students in the Game Programming specialisation.

This module enables students to:

- Explore major issues in video game programming: image synthesis, solid geometry, physics and network.
- Grasp these key concepts by directly manipulating the C++ code of a simple engine that is completely unknown to them and manipulating the advanced tools of a market engine.

Detailed objectives

- Understand the basics of a simple game engine code written in C++.
- Change this basic code to develop a particular universe and gameplay.
- Know the basic principles of image synthesis for video games.
- Know how to write simple shaders and create effects linked to the manipulation of vertexes and fragments, in forward and deferred.
- Write the physical behaviour of a solid which is controlled by a controller and manage its collisions in a simple case.
- Understand the principles of architecture and service quality of synchronous networks and the special features to use specific to their game.
- Manipulate a standard market game engine and explore its advanced tools.

Assessment methods

Session 1

Evaluation method	Percentage of overall mark
Multiple-choice questionnaires in lessons and submission of projects	60%
Exam in the form of Multiple-choice questionnaire & exercises	40%

Session 2

Improve projects and write a summary bibliographical report on concepts not yet fully understood.