

Description

This module is intended for students in the Game Programming specialisation. It takes place in parallel to the "IT Design and Development" module offered to students in other specialisations.

This module enables students to revise and strengthen their knowledge of the C++ programming language. Based on a C++ module delivered at Stanford University (USA), it outlines the principles of the language with a focus on optimisation concepts. The depth of knowledge that this module provides equips students with a solid base of skills which ultimately benefits the whole year group in multi-disciplinary projects.

Given that students' knowledge of C++ can vary considerably, they are put into pairs (one student has a high-level of knowledge and the other needs to improve their skills), thereby encouraging them to share knowledge between themselves.

Detailed objectives

- Predict the overall impact when making changes to code and the memory footprint of the programme, thus leading to being able to write a more optimised code.
- Understand the advanced mechanisms offered by the STL (Standard Template Library)
- Draw inspiration from the STL to offer a suitable architecture both in terms of manipulability and optimisation.

Assessment methods

Session 1

Series of multiple-choice questionnaires are given throughout the module to assess theoretical learning.

Week-long practical project which consists of developing an ASCII game on the Windows console.

Session 2

Same practical project in Session 1 (at the end of Semester 2).