

# Capstone Project Overview

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## Course Description

Students will work in small teams assuming the role of a game development company who has received a brief from a leading museum to develop an educational video game aimed at 8- to 11-year-olds. The game will be added to the museum website as a means of engaging children in the target age range.

## Course Overview

Learning to code is no longer a "speciality" skill. Rather, it has become a mainstream, core discipline utilized in nearly every industry; requiring more and more skilled workers every year. Coding tests a variety of abilities. It hones problem-solving and analysis skills, such as finding errors and thinking logically. Further, coding often helps people develop teamwork and interpersonal skills since software and application projects are often cross-disciplinary and collaborative.

In this course you will learn to use a games industry standard piece of software and be tasked with developing a project to an industry realistic brief. Our software for this project will be Unity, a game development engine. It is considered easy to learn to use for beginners and allows users to create 2D and 3D games which can be run across multiple operating systems.

## Lesson Plan

### Day 1

#### Introduction to the software

- Students will work individually to create their first project in Unity, learn how to create and navigate around scenes which will form the basis of their project.

### Day 2

#### Systems for project development

- Students will be introduced to the process and workflows that will enable them to work as a team to complete their final projects. In addition, they will learn how to create and design their own game objects. This will include the implementation of physics within their games for added realism.

### Day 3

#### Coding within Unity

- Students will be introduced to coding within Unity. They will work from examples provided to learn how to interpret the code, fix bugs and modify the code to achieve required end results.

### Day 3

#### Final project

- The students will be put into small teams and will be given a final project to complete for assessment. The project submission will include documented workflows to show how the team will produce their final project. Some design elements which storyboard the final project and a prototype of the game demonstrating elements of gameplay and the code which has achieved that result.

## Course Delivery

The course will be developed, delivered and assessed by ComputerXplorers. ComputerXplorers is a dedicated computer education company delivering engaging computer lessons across the UK throughout their school lives.

On completion of the course and submission of the final projects the students will receive a certificate of completion and a written assessment of their project.