



Course Information Sheet

Course Name: Game Programming and Design

Instructional Material: CompuScholar

Software (if required):

Semester One:

Week	Topic
1	Introduction to Game Design and Development
2	The History of Gaming and Industry Careers
3	Digital Citizenship and Game Ethics
4	Game Design Principles and Elements
5	Narrative and Storyboarding
6	Introduction to Game Engines and IDEs
7	Basic Programming Concepts for Games
8	Game Mechanics and Rule Systems
9	Character and Level Design
10	Introduction to 2D Game Development
11	Creating Sprites and Game Art
12	Collision Detection and Physics
13	Audio and Sound Design
14	User Interface (UI) and User Experience (UX) Design
15	Game Testing and Quality Assurance
16	Game Marketing and Monetization
17	Project-Based Learning: Simple Game Creation
18	Mid-Term Review and Examination



Semester Two:

Week	Topic
19	Advanced Programming for Games
20	Object-Oriented Programming (OOP) in Games
21	Introduction to 3D Game Development
22	3D Modeling and Asset Creation
23	Advanced Physics and AI for Games
24	Scripting for Game Events and Logic
25	Artificial Intelligence for Non-Player Characters (NPCs)
26	Multiplayer Game Concepts
27	The Business of Gaming and Publishing
28	Portfolio Development for Game Designers
29	Final Project: Game Design Document Creation
30	Final Project: Programming and Asset Integration
31	Final Project: Polishing and Debugging
32	Final Project: Testing and Feedback
33	Game Project Presentations
34	Career Exploration in the Game Industry
35	Final Review and Portfolio Presentation
36	Final Examination