



## **Course Outline: NTUN102 - Unity Game Development II**

### **Course Overview**

This advanced course elevates participants' abilities to design, build, and publish high-performance 3D games using Unity and C#. The program emphasizes mastering game mechanics, advanced scripting and cross-platform publishing. Learners will tackle real-world design challenges and optimize games for mobile platforms such as iOS and Android. Ideal for those who have completed an introductory Unity course or acquired comparable hands-on experience.

### **Learning Outcomes**

**Upon successful completion, participants will be able to:**

- Master advanced scripting and game architecture using C# in Unity.
- Build captivating 3D environments.
- Create compelling cut scenes and cinematics using Cinemachine.
- Optimize games for quality performance and publishing on multiple platforms.
- Troubleshoot and debug advanced Unity projects.

### **Recommended Prerequisites:**

Participants completing this course should have completed the introductory course NTUN101 or have some basic knowledge of building games using the Unity engine as well as C# scripting.

### **Key Features**

- Hands-on, project-based learning with diverse game genres.
- Up-to-date curriculum featuring Unity's latest technologies.
- Expert instruction from seasoned Unity professionals.
- Flexible delivery: online, onsite, or hybrid programs.
- Empowerment for career advancement in advanced game development.



## Course Modules

- **Module 1: Advanced Unity Editor & Asset Management**
  - Creating downloadable content and expansion packs.
- **Module 2: Animations**
  - UI animations using the Animator.
  - 3D humanoid game object animations
  - T-Poses and bone structure
- **Module 3: Particle Systems**
  - Create stunning visual effects using particles.
  - Projectiles.
- **Module 4: Cinematics**
  - Introduction to Cinemachine
  - Cut scenes
  - Cinematic effects
- **Module 5: Publishing to Mobile**
  - Preparing your game for mobile environments
  - Mobile controls vs. Keyboard controls
  - Publishing to Android
  - Publishing to iOS

## Agenda



Time	Day 1	Day 2	Day 3	Day 4
8:00am	<i>Networking &amp; Coffee</i>	<i>Networking &amp; Coffee</i>	<i>Networking &amp; Coffee</i>	<i>Networking &amp; Coffee</i>
9:00am	Review (Unity Fundamentals, Cameras, Terrains, UI, Physics)	M2: Publishing to Mobile Game2: iOS / Android	Applied Exercise 3	M6: Content Management Game6: Expansion Packs
10:15am	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>
10:30am	M1: Animations Game1: 2D Animations	M2: Continued Game2: Continued	M4: Advanced UI Game4: Advanced Menus	Course Review
11:45am	<i>Networking &amp; Lunch</i>	<i>Networking &amp; Lunch</i>	<i>Networking &amp; Lunch</i>	<i>Networking &amp; Lunch</i>
1:00pm	M1: Continued Game1: 3D Animations	Applied Exercise 2	M5: Particles Game5: Particle Systems	Applied Exam
2:15pm	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>
2:30pm	Applied Exercise 1	M3: Cinemachine Game3: Cutscenes Game	Applied Exercise 4	Applied Exam
3:45pm	<i>Recap</i>	<i>Recap</i>	<i>Recap</i>	<i>Recap</i>