



1. Title: **Video Game Development**

2. Summary of Goals—Learning Outcomes:

This is a four semester program which will prepare the student for an entry-level job in the computer-based game development industry. First year training concentrates on basic programming, using C++ or Visual C#, and the basics of game construction, including game engine selection, 3D graphics tools and development, and image modeling. Second year training considers the game vehicle including interaction between, game engine, graphic models, programming efficiencies for response speed, console game design/implementation and mobile game design/implementation.

Upon completion of courses for the Computer Science-Video Game Development major the student will be able to:

- Describe the hardware and software components of a video game system.
- Design and build a single-user 2D and 3D video game.
- Design and build a multi-user PC or Mobile game
- Evaluate existing game engines, script games in those engines, build and deploy characters and models

3. Course Listing:

Computer Science G175	Programming with C++	4 Units
<u>OR</u>		
Computer Science G178	Visual C#.net, or equivalent	4 Units
Computer Science G147	Introduction to Game Programming	4 Units
Computer Science G148	Intermediate Game Programming	4 Units
Computer Science G149	Advanced Game Programming	4 Units
<u>AND</u> one of the following:		
Computer Science G121	Game Artwork	4 Units
<u>OR</u>		
Computer Science G150	Mobile Games	4 Units
Required Subtotal		20 units
Completion of GE requirements		21-41 units
Additional Electives (as needed to reach 60)		
Degree Total		<u>60 units</u>