



# GREAT NECK PUBLIC SCHOOLS

*"Where Discovery Leads to Greatness"*

*#DiscoverGreatness*

Phipps Administration Building  
Office of Instruction  
345 Lakeville Road  
Great Neck, New York 11020

516.441.4009  
516.441.4010  
Fax 516.441.4992

## Curriculum Profile: Game Development

|                                         |                                                                                                                                                                                                                                                                                                                                                |  |  |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <u>Department</u>                       | Mathematics                                                                                                                                                                                                                                                                                                                                    |  |  |
| <u>Course Name</u>                      | Game Development                                                                                                                                                                                                                                                                                                                               |  |  |
| <u>Course Length</u>                    | 1 year (two semesters)                                                                                                                                                                                                                                                                                                                         |  |  |
| <u>High School Credits</u>              | 1                                                                                                                                                                                                                                                                                                                                              |  |  |
| <u>Description</u>                      | This course explores topics in computer science beyond what is covered in the AP curriculum and will be open to students who have completed AP Computer Science. The class continues the computer science sequence with the study video game design and development using the Unity platform in a new (the students) programing Language (C#). |  |  |
| <u>Target/eligible students</u>         | Prerequisite of AP Computer Science A                                                                                                                                                                                                                                                                                                          |  |  |
| <u>State Learning Standards Link(s)</u> | Not applicable                                                                                                                                                                                                                                                                                                                                 |  |  |
| <u>Primary texts and materials</u>      | Computers with Unity installed                                                                                                                                                                                                                                                                                                                 |  |  |
| <u>Scope/Sequence</u>                   | 1. Getting to know Unity<br>2. Building a 3D demo<br>3. Enemies and projectiles<br>4. Developing graphics<br>5. 2D graphics<br>6. 2D platformers<br>7. GUIs and games<br>8. Player movement and animation<br>9. Interaction in-game<br>10. Internet access in-game<br>11. Building an RPG<br>12. Deploying to devices                          |  |  |
| <u>Additional Notes</u>                 | Class is project-based with smaller assignments for each lesson. Each quarter includes 2-4 larger, long-term programming assignments.                                                                                                                                                                                                          |  |  |