**Graphics Assignment 01 CRG 201617: Space Invaders with a 2D view**

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| **Criterion** | **Weight** | **Pass (40%)** | **2.2 (50%)** | **2.1 (60%** | **1st (70%)** | **1st+ (80%+)** |
| **Document**  8% | **10%** | Document  includes a list  of features and screenshots of each | As for Pass, plus  Document includes control keys for the game | As for 2.2, plus  Document reflects on the development | As for 2.1, plus the reflection is  clear, concise and  insightful | As for 1st, plus  Document shows  control keys on an annotated image of the gamepad or keyboard |
| **Window**  5% | **5%** | There is a  window  which has a title including student name; module; student number | As for Pass, plus the window can be moved and resized | As for 2.2, plus the window can be made  full screen | As for 2.1, plus the correct aspect ratio is maintained, and content scales appropriately | As for 1st, plus the initial  window is non full screen, and half the size of the desktop, and centred |
| **Playable**  **Game**  5% | **5%** | The Game is playable, the Player Character can move, Space Invaders move and  don’t overlap | As for Pass, plus Player Character and Space Invaders shoot, and destroy things appropriately | As for 2.2, plus the Player has 3 lives, and lives shown visually | As for 2.1, plus Space Invaders move down,  eventually to end the game | As for 1st, plus Space Invaders move more  quickly over time |
| **3D Geometry**  25% | **25%** | There is visible 3D geometry for the Player Character and the barricades | As for Pass, plus visible 3D geometry for the Space Invaders,  Bullets, and  World  Boundaries | As for 2.2, plus Space Invaders "spin-off" when killed | As for 2.1, plus geometry has more than 20 polygons each | As for 1st, plus geometry is  loaded from  a file |

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| **Textures and Lighting**  18% | **30%** | All geometry is textured | As for Pass,  background texture for the scene (cube map) | As for 2.2, visually evident lighting in the scene | As for 2.1,  dynamic  lighting in the scene (e.g. Player  Character has a spotlight) | As for 1st, plus Space Invaders are animated with textures |
| **3D view**  20% | **25%** | Perspective projection | As for Pass, plus Viewpoint from at least 3 viewpoints (can be fixed locations, change on a key press) | As for 2.2, plus Evidence of working depth testing  (visually) | As for 2.1,  plus 2D HUD showing the score (this should be independent of the 3D  view - i.e. it shouldn’t change when the 3D viewpoint changes)x | As for 1st,  plus Dynamic viewpoint  (either a view from the  Player Character, OR a free cam controlled by mouse and/or keyboard) |
| 81% |  |  |  |  |  |  |