Coursework Assignment Brief

Assessment - Undergraduate

***Academic Year 2022-23***

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| **Module Code and Title:** | CMP4274 3D Game Programming | |
| **Module Code and Title:** | CMP4293 Game Asset Pipeline | |
| **Assessment Title:** | Design and Development of a 3D Game | |
| **Assessment Type:** | CWRK | |
| **School:** | School of Computing and Digital Technology | Weighting: 100 % |
| **Module Co-ordinators:** | Dr Xi Guo, Nathan Dewell | |
| **Hand in deadline date:** | Skill challenge week 1 file upload: 3pm Mid-day 10th February 2023  Skill challenge week 2 file upload: 3pm Mid-day 3th March 2023  Skill challenge week 3 file upload: 3pm Mid-day 24th March 2023  Final demonstration file upload: 3pm Mid-day on 8th May, 2023 | |
| **Return of Feedback date and format** | 20 working days from date of submission (see Moodle for details). | |
| **Re-assessment hand in deadline date:** | 12pm Mid-day on Monday 24th July 2023  Note: the reassessment work may be different. | |
| **Support available for students required to submit a re-assessment:** | Timetabled support sessions will be arranged for the period immediately preceding the hand-in date | |
| **NOTE:** | At the first assessment attempt, the full range of marks is available. At the re-assessment attempt the mark is capped and the maximum mark that can be achieved is 40%. | |
| **Assessment Summary** | This assignment will require you to make a **3D game using Unreal Engine 4.27.**  You will be required to do three group-based skill challenge activities showing your progress on using Unreal Engine. You will be required to work in a team. You are required to give a presentation and submit your work to demonstrate your engagement.   * Skill challenge week 1 (peer reviewed by other students in the class): 5% * Skill challenge week 2 (peer reviewed by other students in the class): 5% * Skill challenge week 3 (peer reviewed by other students in the class): 5%   Final demonstration file requires you to submit all your game files including a 5-minute annotated video walkthrough of your game illustrating key points for both modules.   * Final submission and game demonstration (using annotated mp4 video): 85%   **Peer reviewed sessions**  There are three peer reviewed skill challenge weeks. You will be required to present required work on your team to both the lecturer and class for peer feedback. You will also be required to provide feedback on your peers’ game.  You should not take code or copy tutorials directly. If you use online tutorials, then this should exclusively be for inspiration only. All sources used for inspiration should be referenced in your source code. Please read the section “**IMPORTANT STATEMENTS**” on the next page to make sure you are familiar with the university rules and policies on plagiarism and collusion.  **Now please**   * Read the assignment brief, the details of the task and marking criteria. * Work through the checklist at the end of this document.   Clarify any points you are unsure of with the module coordinator. | |
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**IMPORTANT STATEMENTS**

***Undergraduate Regulations***

Your studies will be governed by the BCU Academic Regulations on Assessment, Progression and Awards. Copies of regulations can be found at <https://www.bcu.ac.uk/student-info/student-contract>

For courses accredited by professional bodies such as the IET (Institution of Engineering and Technology) there are some derogations from the standard regulations and these are detailed in your Programme Handbook

***Cheating and Plagiarism***

Both cheating and plagiarism are totally unacceptable and the University maintains a strict policy against them. It is YOUR responsibility to be aware of this policy and to act accordingly. Please refer to the Academic Registry Guidance at <https://icity.bcu.ac.uk/Academic-Services/Information-for-Students/Assessment/Avoiding-Allegations-of-Cheating>

The basic principles are:

* Don’t pass off anyone else’s work as your own, including work from “essay banks”. This is plagiarism and is viewed extremely seriously by the University.
* Don’t submit a piece of work in whole or in part that has already been submitted for assessment elsewhere. This is called duplication and, like plagiarism, is viewed extremely seriously by the University.
* Always acknowledge all of the sources that you have used in your coursework assignment or project.
* If you are using the exact words of another person, always put them in quotation marks.
* Check that you know whether the coursework is to be produced individually or whether you can work with others.
* If you are doing group work, be sure about what you are supposed to do on your own.
* Never make up or falsify data to prove your point.
* Never allow others to copy your work.
* Never lend disks, memory sticks or copies of your coursework to any other student in the University; this may lead you being accused of collusion.

By submitting coursework, either physically or electronically, you are confirming that it is your own work (or, in the case of a group submission, that it is the result of joint work undertaken by members of the group that you represent) and that you have read and understand the University’s guidance on plagiarism and cheating*.*

You should be aware that coursework may be submitted to an electronic detection system in order to help ascertain if any plagiarised material is present. You may check your own work prior to submission using Turnitin at the [Formative Moodle Site](https://moodle.bcu.ac.uk/enrol/index.php?id=715). If you have queries about what constitutes plagiarism, please speak to your module tutor or the Centre for Academic Success.

***Electronic Submission of Work***

It is your responsibility to ensure that work submitted in electronic format can be opened on a faculty computer and to check that any electronic submissions have been successfully uploaded. If it cannot be opened it will not be marked. Any required file formats will be specified in the assignment brief and failure to comply with these submission requirements will result in work not being marked. You must retain a copy of all electronic work you have submitted and re-submit if requested.

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| **CMP4274**  **Learning Outcomes to be Assessed:**  1 Present and discuss the development of a 3D game.  2 Create a 3D game based upon a set of requirements. |

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| **CMP4293**  **Learning Outcomes to be Assessed:**   1. Express knowledge of industry-standard game engine architecture and components. 2. Describe the game production pipeline. 3. Select appropriate methodologies to import assets into a game engine (e.g., geometry models, animation, textures, sounds, music, particle systems). 4. Summarise the process of producing a 3D game using game middleware, employing game logic and object behaviour. |

**Assessment Details:**

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| **Title:** Design and development of a 3D game using Unreal Engine  **Style:** Three skill challenge week activities and one course work.   * Skill challenge week 1 requires you work in a team to finish given challenges/tasks using Unreal Engine. The result is required to be submitted on team bases and will be peer reviewed. You are also required to give peer review on the work from other teams. * Skill challenge week 2 requires you work in a team to finish given challenges/tasks using Unreal Engine. The result is required to be submitted on team bases and will be peer reviewed. You are also required to give peer review on the work from other teams. * Skill challenge week 3 requires you work in a team to finish given challenges/tasks using Unreal Engine. The result is required to be submitted on team bases and will be peer reviewed. You are also required to give peer review on the work from other teams. * Final submission requires submission of the final exported game files including all asset files and annotated video for game demonstration. |
| **Rationale:**  This assessment reflects the staged processes used in developing 3D games and software. Presenting and pitching ideas to audiences and defending ideas are also an important behavioural skill required by employers. Working in a team to solve problems also help to build teamwork skills and confidence. Creating a promotional video will also teach you how to present information that can be used in your portfolio.  **Description:**  The presentation should be conveyed in a formal style appropriate to an external professional organisation or a potential employer. The presentation should be based around a PowerPoint. If it is an online presentation, web camera MUST be on during the presentation. Failure to do so means you cannot do your presentation.  Game demonstration can be delivered via pre-recording videos if live demonstration is not possible. A demonstration of the game should be exported in exe format.  **Specification:** The game should be made in Unreal Engine 4.26 using the same version as in the Faculty. Failure to do so may mean a penalty of minus 5% for each presentation.  You can download archived versions of the software from the Unreal Engine website ([https://www.unrealengine.com/](https://www.unrealengine.com/en-US/) ). You should make and demonstrate an executable. You will need the source code too as you will be questioned on this during your presentations. The game should be playable on the presentation machine in MP135. |
| **Game Theme:**  The game theme is of your choosing; but this will need to be agreed with the tutor before you start developing the game. All games are required to be **3D games made using Unreal Engine**. Here are some suggestions for themes:   * Adventure game * RPG game * Puzzle game * Simulations   **Your submission will be assessed according to different module requirements. The details are listed below:**  **FEATURE LIST FOR GAME PROJECT**  **Game mechanics:** The following section will describe the game mechanics. Please refer to the grading criteria to how aspect will be graded.  The following table outlines a series of game features that are expected to be in your game. Your game features are not limited to those in this table   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Index | Game Project Feature List | Required  for CMP4274  3D Game Programming | Required for  CMP4293 Game Asset Pipeline | Student Checklist | | **PROTOTYPE FEATURES** | | | |  | | 1 | Terrain | Checkbox Checked with solid filloptional | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 2 | Water | Checkbox Checked with solid filloptional | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 3 | Skybox / dome | Checkbox Checked with solid fill | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 4 | Character | Checkbox Checked with solid fill | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 5 | Enemy/obstacles | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 6 | Animation of game assets | Checkbox Checked with solid fill | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 7 | Playable with keyboard as well as controller (required to demonstrate in game video on how you achieved this) | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 8 | Collision detection | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 9 | Fully functioning user interface | Checkbox Checked with solid fill | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 10 | White boxed level design |  | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 11 | Basic Lighting |  | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | FINAL GAME FEATURES | | | |  | | 1 | Player character with multiple animations and/or behaviours | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 2 | Enemy object with multiple animations and/or behaviours | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 3 | Successfully use AI module for path finding. | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 4 | Implement particle systems (ready-made particles) | Checkbox Checked with solid fill | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 5 | Implement collision animation effect. | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 6 | Use physics and use of visual effects (such as fog and atmosphere, post-processing, reflection etc.) which affect the game play. | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 7 | Audio, music and sound. | Checkbox Checked with solid fill | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 8 | Complete user interface such as login, splash screen, game over screen and game restart. | Checkbox Checked with solid fill | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 9 | Game play has different levels or increasing difficulties | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 10 | Use of External Asset Creation Tools |  | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 11 | Use of an industry standard version control tool for versioning your assets |  | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 12 | Bespoke Textures |  | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 13 | Dynamic Audio Management |  | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 14 | Bespoke animation |  | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | ADVANCED FEATURES (You need to demonstrate how you achieve it in video) | | | |  | | 1 | Has customised shaders | Checkbox Checked with solid fill | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 2 | Uses UE4 animation blend spaces | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 3 | Has behaviour trees | Checkbox Checked with solid fill |  | Checkbox Checked with solid fill | | 4 | Has a working user login using network connection with a database | Checkbox Checked with solid fill |  |  | | 5 | Has data persistence with session control | Checkbox Checked with solid fill |  |  | | 6 | Custom Tool |  | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 7 | Procedural Asset(s) |  | Checkbox Checked with solid fill | Checkbox Checked with solid fill | | 8 | Game World Optimization |  | Checkbox Checked with solid fill |  |   **GAME ASSET PIPELINE – How it’s graded**  The grading for game asset pipeline is based on your ability to create assets using external tools, and then how you store, version and add those assets to your project, this is called the game asset pipeline. please pay close attention to the relevant grading table found later in the document for a more detailed breakdown.  **3D GAME DEVELOPMENT– How it’s graded**  The grading for 3D game development will focus on your ability to program your game and make use of some engine features, as well as the overall design and functionality of your game, please pay close attention to the relevant grading table found later in the document for a more detailed breakdown.  **Video Submission Requirements**  The submitted game demonstration video needs to **include 40-50 seconds raw game demonstration** **at the beginning without any annotation.** It should be exported in mp4 format so that it can play in most of the windows video players.  Your video submission should be around 5 minutes in duration, demonstrate key aspects of your work and be used as a showcase portfolio piece.  Throughout your video you should be able to showcase the following:   * An overview of your project and an early specification of what you set out to be doing. * Examples of the pre-production and planning of your game world. * Evidence of each feature included in the game project. * Evidenced versioning of each created asset. * Artistic camera shots that showcase the best parts of the developed game world.   Ideally the video will have three clear sections.   1. Video clips and/or images showing your pre-production/planning, the features included in your game project and your chosen external tools, whilst you use audio narration, to explain your processes and explain your design choices. 2. A showcase of your game world, using a variety of camera shots and still images, potentially backed by some fitting royalty free music/sounds. 3. A credits section which will include all your referenced content.   **Additional information:**  File size should be controlled within 10GB.  If your game is more than 2GB, you will need to upload it via One Drive. Please make sure the link you submitted is valid and allow file download.  For advice on writing style, referencing and academic skills, please make use of the Centre for Academic Success: |
| **S**  **Workload:**  This assessment is equivalent to 8000 words and a typical student would be expected to take 80 hours to pass this assessment. |
| **Transferable skills:**   * Verbal presentation skills. * Discussion and defence skills. * Portfolio-based skills – video presence. * Technical skills transferable to other computing disciplines. * Teamwork skills. |

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| **Marking Criteria:**  **Table of Skill challenge week - 1 (5%)**   |  |  |  | | --- | --- | --- | | Assessment Criteria | Oral presentation of the game | Marks / 5 | | Learning outcome being assessed | 1. Present and discuss the development of a 3D game. | Marks | | **Weighting:** | 5% | 5 | | Grading  Criteria  0 – 29% | No/ very poor teamwork output or the submitted work does not reflect the required theme or requirements.  No submit peer review | 0/1 | | 30 – 39% | No/ very poor teamwork output or the submitted work does not reflect the required theme or requirements.  But submit one peer review | 1 | | 40 – 49% | No/ very poor teamwork output or the submitted work does not reflect the required theme or requirements.  But submit more than one peer review | 2 | | 50 – 59% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit no or only one peer review  Finished less than 50% of tasks | 2.5 | | 60 – 69% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit more than one peer review  Finished less than 50% of tasks | 3 | | 70 – 79% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit no or only one peer review  Finished 50%- 80% of tasks | 3.5 | | 80 – 89% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit more than one peer review  Finished 50%- 80% of tasks | 4 | | 90 – 100% | Has an excellent teamwork output and the submitted work reflects the required theme or requirements.  Submit more than one peer review  Finished more than 80% of tasks | 5 |   **Table of Skill challenge week - 2 (5%)**   |  |  |  | | --- | --- | --- | | Assessment Criteria | Oral presentation of the game | Marks / 5 | | Learning outcome being assessed | 1. Present and discuss the development of a 3D game. | Marks | | **Weighting:** | 5% | 5 | | Grading  Criteria  0 – 29% | No/ very poor teamwork output or the submitted work does not reflect the required theme or requirements.  No submit peer review | 0/1 | | 30 – 39% | No/ very poor teamwork output or the submitted work does not reflect the required theme or requirements.  But submit one peer review | 1 | | 40 – 49% | No/ very poor teamwork output or the submitted work does not reflect the required theme or requirements.  But submit more than one peer review | 2 | | 50 – 59% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit no or only one peer review  Finished less than 50% of tasks | 2.5 | | 60 – 69% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit more than one peer review  Finished less than 50% of tasks | 3 | | 70 – 79% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit no or only one peer review  Finished 50%- 80% of tasks | 3.5 | | 80 – 89% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit more than one peer review  Finished 50%- 80% of tasks | 4 | | 90 – 100% | Has an excellent teamwork output and the submitted work reflects the required theme or requirements.  Submit more than one peer review  Finished more than 80% of tasks | 5 |   **Table of Skill challenge week - 3 (5%)**   |  |  |  | | --- | --- | --- | | Assessment Criteria | Oral presentation of the game | Marks / 5 | | Learning outcome being assessed | 1. Present and discuss the development of a 3D game. | Marks | | **Weighting:** | 5% | 5 | | Grading  Criteria  0 – 29% | No/ very poor teamwork output or the submitted work does not reflect the required theme or requirements.  No submit peer review | 0/1 | | 30 – 39% | No/ very poor teamwork output or the submitted work does not reflect the required theme or requirements.  But submit one peer review | 1 | | 40 – 49% | No/ very poor teamwork output or the submitted work does not reflect the required theme or requirements.  But submit more than one peer review | 2 | | 50 – 59% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit no or only one peer review  Finished less than 50% of tasks | 2.5 | | 60 – 69% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit more than one peer review  Finished less than 50% of tasks | 3 | | 70 – 79% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit no or only one peer review  Finished 50%- 80% of tasks | 3.5 | | 80 – 89% | Has teamwork output and the submitted work reflects the required theme or requirements.  Submit more than one peer review  Finished 50%- 80% of tasks | 4 | | 90 – 100% | Has an excellent teamwork output and the submitted work reflects the required theme or requirements.  Submit more than one peer review  Finished more than 80% of tasks | 5 |   **Table of Assessment Criteria and Associated Grading Criteria**  ***CMP4274 3D Game Programming Final submission***  **All items must be completed in each section before marks can be awarded for more advanced features.**  **“Finished game mechanic” refers to a complete game implementation with a clear rules among adversaries trying to win objectives. All game features related to the game rule are required to be implemented.**   |  |  |  | | --- | --- | --- | | **Assessment** | **1, 2, 3, 4** | **2, 4** | | **Criteria** | **Create a complete 3D game based upon a set of requirements** | **Quality of video** | |  |  |  | | **Learning outcome being assessed** | 2. Create a 3D game based upon a set of requirements. | 1.Present and discuss the development of a 3D game. | | | **Weighting:** | **80%** | **5%** | | **Grading** | No functioning game. | No video attached in submission. | | **Criteria** | |  | | **0 – 29%** | |  | | **30 – 39%** | Very limited functionality. Game design does not reflect the required theme or achieve less than four (**including four**) requirements from "Progress / Prototype demonstration key points" | Poor video with few descriptions. No Game demonstration. | | | **40 – 49%** | Game adheres to the theme and appears to be playable with some bugs. Achieve partial requirements from "Progress / Prototype demonstration key points" | Limited video describing some aspects of game play. | | 50 – 59% | Game appears to be fun to play and functional with only a few bugs.   Good design of assets and animation with all "Progress / Prototype demonstration key points" achieved.  Achieve at least two requirements from “Final demonstration key points” | Satisfactory video describing aspects of game play and features. | | 60 – 69% | Good game functional and fun to play with finished game mechanics and minor bugs.  Good design of assets and animation with all "Progress / Prototype demonstration key points" achieved.  Achieve at least six requirements from “Final demonstration key points” | Good annotated video describing game play and features. Video uses required structure. | | 70 – 79% | Very good game with finished game mechanics and no bugs or glitches and is very fun to play. Fully working user interface displaying game data.  Good design of assets and animation with all "Progress / Prototype demonstration key points" achieved.  Achieve all requirements from “Final demonstration key points”  Finished at least one of advanced features (including one) | Very good annotated video describing game play and features.  Video uses required structure. Some analysis on game implementation. | | 80 - 89% | Excellent game with finished game mechanics and very fun to play. Game play with a fully working user interface displaying game data.  Good design of assets and animation with all "Progress / Prototype demonstration key points" achieved.  Achieve all requirements from “Final demonstration key points”  Finished at least two of advanced features (including two) | Excellent annotated video describing game play and features. Video uses required structure. In depth analysis on game implementation. Good timing and visual expression. | | 90 – 100% | Excellent game with finished game mechanics and very fun to play. Game play with a fully working user interface displaying game data.  Good design of assets and animation with all "Progress / Prototype demonstration key points" achieved.  Achieve all requirements from “Final demonstration key points”  Finished three or more of advanced features (including three) | Near professional quality annotated video describing game play and features. Very interesting to watch. Video uses required structure. In depth analysis on game implementation. Good timing and visual expression. | |  |  |  |   **Table of Assessment Criteria and Associated Grading Criteria**  **CMP4293 Game Asset Pipeline *Final submission***   |  |  |  | | --- | --- | --- | | **Assessment**  **Criteria**  **** | **2.**  **Game World**  **LO:3,4** | **3.**  **Video**  **LO:1,2,4** | | **Weighting:** | **0.80** | **0.5** | | **Grading**  **Criteria**  **0 – 29%** | No or very limited game world | Major shortcomings in clarity and / or relevance. Explanations are incoherent or display lack of essential knowledge and/or relevance. No video submission. | | **30 – 39%** | Limited game world not reflecting the requirements of the assignment brief.  Use of some in-engine tools to create a game world. | Explanation lacks clarity and / or relevance. However, there is enough evidence to suggest that some additional preparation time would enable a pass standard to be achieved. Serious shortfall in ability to explain fundamentals. Video does not meet requirements. | | **40 – 49%** | There is basis of a game world, but the world was not well developed. More work needed to reflect the requirements of the assignment brief.  Use of an industry standard version control tool for versioning your assets  Use of some in-engine tools to create a game world.  At least 2 external tools have been used to create and import assets into the game world. | Lack of familiarity with the topic and wider issues, and / or lack of understanding in some areas, however, there are adequate explanations on key points of knowledge / understanding. A video demonstrating the project, that matches the duration and encoding strategy requirements. | | **50 – 59%** | Satisfactory game world with clear examples of development aligned to the requirements of the assignment brief.  Use of an industry standard version control tool for versioning your assets  At least 4 external tools have been used to create and import assets into the game world.  The assets are context aware to your theme and have a reasonable level of complexity.  There is evidence of implementation of at least one custom shader. | Reasonable explanation and is able to adequately discuss straightforward aspects. There may be some minor deficiencies in knowledge. Video is narrated. | | **60 – 69%** | Good game world concept well developed and links with the requirements of the assignment brief.  Use of an industry standard version control tool for versioning your assets  At least 5 external tools have been used to create and import assets into the game world.  The assets are context aware to your theme and have a high level of complexity.  There is evidence of implementation of at least one custom shader using the shader graph in Unity.  There is evidence of implementation of at least one custom shader written in a language. | Good explanations and Appears to be generally familiar with the specific topic and with relevant wider issues. Video uses appropriate annotation | | **70 – 79%** | Very good game world. Significant development has been carried out.  Use of an industry standard version control tool for versioning your assets  At least 5 external tools have been used to create and import assets into the game world.  The assets are context aware to your theme and have a high level of complexity.  There is evidence of implementation of at least one custom shader using the shader graph in Unity.  There is evidence of implementation of at least one custom shader written in a language.  There is evidence of implementation of at least ONE of the advanced features | Confident, succinct and informative Explanations appears to be well informed on specific subject knowledge as well as wider issues associated with the project. Video is edited to improve engagement. | | **80 – 89%** | Excellent game idea. Significant competitor analysis of similar games has been made.  Use of an industry standard version control tool for versioning your assets  At least 5 external tools have been used to create and import assets into the game world.  The assets are context aware to your theme and have a high level of complexity.  There is evidence of implementation of at least one custom shader using the shader graph in Unity.  There is evidence of implementation of at least one custom shader written in a language.  There is evidence of implementation of at least TWO of the of the advanced features | Confident, succinct and informative Explanations. Appears to be well informed on specific subject knowledge as well as wider issues associated with the project. Video is edited to improve engagement. | | **90-100%** | Outstanding game idea. Significant, extensive and comprehensive competitor analysis of similar games has been made.  Use of an industry standard version control tool for versioning your assets  At least 5 external tools have been used to create and import assets into the game world.  The assets are context aware to your theme and have a high level of complexity.  There is evidence of implementation of at least one custom shader using the shader graph in Unity.  There is evidence of implementation of at least one custom shader written in a language.  There is evidence of implementation of at THREE of the of the advanced features | Excellent, confident, succinct and informative explanations Appears to be well informed on specific subject knowledge as well as wider issues associated with the project. Video is of professional quality and serves as a suitable trailer to your game world. | |

**Submission Details:**

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| **Format:**   * All files including PowerPoint, game source code, mp4 video, assets and code need to be uploaded to Moodle as one zip file at the required time points.   **You should also submit your competed checklist (see end of this document).** |
| **Regulations:**   * The minimum pass mark for a module is 40% * Re-sit marks are capped at 40%   *Full academic regulations are available for download using the link provided above in the IMPORTANT STATEMENTS section*  **Late Penalties**  If you submit an assessment late at the first attempt then you will be subject to one of the following penalties:     * if the submission is made **between 1 and** **24 hours** after the published deadline the original mark awarded will be reduced by **5%**. For example, a mark of 60% will be reduced by 3% so that the mark that the student will receive is 57%. ; * if the submission is made between **24** **hours** and **one week (5 working days)** after the published deadline the original mark awarded will be reduced by 10%. For example, a mark of 60% will be reduced by 6% so that the mark the student will receive is 54%. * **if the submission is made after 5 days following the deadline, your work will be deemed as a fail and returned to you unmarked.**   The reduction in the mark will not be applied in the following two cases:   * + the mark is below the pass mark for the assessment. In this case the mark achieved by the student will stand   + where a deduction will reduce the mark from a pass to a fail. In this case the mark awarded will be the threshold (i.e.40%)   Please note:   * **If you submit a re-assessment late then it will be deemed as a fail and returned to you unmarked.** |
|  |

**Feedback:**

Marks and Feedback on your work will normally be provided within 20 working days of its submission deadline via Moodle.

**Where to get help:**

Please contact the module tutor via email to arrange a one-to-one appointment.

In addition, a Frequently Asked Questions section is available on the MS Team group.

Students can get additional support from the library for searching for information and finding academic sources. See their iCity page for more information: <http://libanswers.bcu.ac.uk/>

The Centre for Academic Success offers 1:1 advice and feedback on academic writing, referencing, study skills and maths/statistics/computing. See their iCity page for more information: <https://icity.bcu.ac.uk/celt/centre-for-academic-success>

Additional assignment advice can be found here: <https://libguides.bcu.ac.uk/MA>

**Fit to Submit:**

Are you ready to submit your assignment – review this assignment brief and consider whether you have met the criteria. Use any checklists provided to ensure that you have done everything needed.

***Assignment Checklist***

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| --- | --- |
|  | **Assignment Tip Sheet** |

**Run through this simple tick list before submitting your work!**

**Final submission check list**

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| --- | --- |
| **Item** | **Completed ** |
| I have read the all of the assignment brief, its learning outcomes and marking criteria. I have clarified anything that I am unsure of with the module coordinator. |  |
| I have used the correct version of Unreal Engine as prescribed in this assignment brief. |  |
| I have made regular backup copies of my work. |  |
| I have tested my game on the presentation machine in MP135 or the designated venue for my presentation. |  |
| I have made and correctly tested an ‘exe’ version of my game for my presentation that works on the tutors machine. |  |
| I have my source code with me too. |  |
| I have made sure my presentation is in an academic format i.e. objective, impersonal and in past tense which describes the work I have undertaken. |  |
| My video includes 40-50 seconds game demonstration without any annotation as required |  |
| My video explains the task I have undertaken. All images are presented using academic conventions (using figure numbers, heading and titles). |  |
| All work that is not my own is correctly referenced either in the presentation and / or sources code. |  |
| I have rehearsed the presentation and it conforms to the time frame. |  |
| I have uploaded all the required files in plenty of time to the correct module Moodle assessment point. |  |
| I have prepared and export the videos to mp4 format. |  |
| I have read the feedback, clarified any points I did not understand with the tutor and have acted upon the advice. |  |