ASSIGNMENT BRIEF

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| Module Code | 3CB106 | Module Leader | | Dr Andrew Guest | |
| Module Title | Games Engine Development | | | | |
| Level | 6 | Credit Value of Module | | 20 | |
| Assessment Task | Portfolio – Game, Game One Page, Demonstration, Essay | | | | |
| Word Count | Essay (2000 words) + Game Development, Demo & One Page | | | | |
| Assessment No | 1 | of | 1 | Weighting | 100% |
| Type of Submission | Portfolio | | | | |
| Method of Submission | Electronic through moodle & gitlab or other appropriate source control | | | | |
| Publication Date | 8/2/22 | | | | |
| Due Date | 24/05/22 12:00pm (Noon) | | | | |
| Expected Feedback Date | 14/06/22 | | | | |
| Resit Date | 15 August 2022 12:00pm Noon | | | | |
| Format of Feedback | Through moodle | | | | |
| Anonymous marking | Not anonymous. Documentation is closely linked to code and code cannot be anonymous.  Code of Assessment 29.5.2  c) Subject-specific skills exercises or product creation e.g. artwork, product design, video production, performances.  f) Collaboratively produced or peer-marked assessments e.g. group work. | | | | |
| Learning Outcomes | | | | | |
| 1. Apply appropriate concepts, principles and approaches to games engine development; 2. Critically evaluate different approaches to game engine development using appropriate techniques 3. Effectively communicate a systematic understanding of the core principles of Game Engine development | | | | | |
| Assignment Description | | | | | |
| **Overview**    *Please ensure you read all of this document. Pages 4-6 contain the marking rubric that shows how the module will be marked.*  This module focuses on game engines and their role in the game development process. For this module you will engage will a game engine to develop a game. Through developing the game you will study aspects of the game engine (such as graphics rendering, animation, game physics and collision detection), evaluate the game engine’s approach to those aspects and use or work round them.  This assessment comes in three parts.   1. A One Page game description/promo/elevator pitch for your game 2. A Game developed using a game engine 3. An essay describing the use of the game engine for your game | | | | | |
| **1 – Game One Page (1 Side A4) [10%]**  A One Page is a one page long document which shows the main features of your project and will let us stand out from the competition. It should be a brief, attractive and effective promotion for your game. It is used to “sell” the game concept to your team, your employers (if you work for a games company) or a games company/publisher if you are trying to find backing for your game.  There is a guide to creating One Pages (<https://www.gamedeveloper.com/business/how-to-design-your-one-page>) and a gallery of one pages to inspire you (<https://onepagelove.com/inspiration/game>).  Your One Page should be a single page PDF file. It can be portrait or landscape layout. How you layout the page and exactly what you put on it is up to you but it should give a good overview of the game. Anyone looking at it should quickly grasp the game concept, its core loop, and its genre/theme.  You are expected to have produced version one of your One Page by the class in week 4 (1st March 2022).  The final version should be submitted through Moodle by the assessment deadline. | | | | | |
| **2 – A Game Developed Using A Game Engine [40%]**  In this module we are looking at development using game engines. The lectures will cover the different components of game engines. For the assessment you will use a game engine to develop a game.  The game should involve extensive use of at least one component of the game engine. It should push your knowledge of that component, its capabilities and its limitations. Once you have your game concept you should consider what you need from a game engine and research which engine is most appropriate for the game.  You can develop any game you wish. It can be a remake of an existing game or something original. You should check with the lecturer to ensure your choice is appropriate for this module.  You can use any game engine that is freely available and can be run on the computers in the third year laboratory. (Your own laptop may be acceptable, but you will need to bring it in for the demonstration session).  The following engines are acceptable :- Unreal, Unity, Godot, GameMaker Studio 2, Armory, CryEngine, Corona/Solar2D. If you are considering any other engine speak to the lecturer about it.  You will need to demonstrate the game to the lecturer, the demonstration should include a discussion of the game engine, how well it supported your game concept and any problems you faced. | | | | | |
| **3 – Game Engine Essay (2000 Words) [50%]**  You have to write a 2000 word essay describing how you used your chosen game engine in developing your game. Your essay should include an overview of the core loop/gameplay of your game, an introduction to the engine and why you chose it. The majority of the essay should discuss the components of the engine used in developing the game. You should focus on which parts of the engine supported your game concept and any factors of the engine that hindered you.  Your essay should include approariate images and diagrams and should be well referenced. The 2000 word limit is strict but extra material can be included in appendices. Diagrams, images, references and appendices do not count towards the word count. | | | | | |
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| **Marking**  This assessment will be marked by rubric. The rubric is included below.  The marks break down as   * One Page 10% * Game 45% * Essay 45% | | | | | |
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| Assessment Regulations | | | | | |
| * Your attention is drawn to the University policy on academic misconduct ([Academic Misconduct Policy](https://www.yorksj.ac.uk/media/content-assets/registry/policies/code-of-practice-for-assessment/23.Academic_Misconduct_Policy_2021-22.pdf)). Penalties will be applied where a student is found guilty of academic misconduct, including termination of programme. * You are required to keep to the word/time limit set for an assessment and to note that you may be subject to penalty if you exceed that limit ([Agreed Penalties Policy](https://www.yorksj.ac.uk/media/content-assets/registry/policies/code-of-practice-for-assessment/30.Agreed_Penalties_Policy_2021-22.pdf)). You are required to provide an accurate word count on the cover sheet for each piece of work you submit. * For a first assessment attempt a penalty may be applied for late or non-submission of work by the published deadline or an approved extended deadline ([Agreed Penalties Policy](https://www.yorksj.ac.uk/media/content-assets/registry/policies/code-of-practice-for-assessment/30.Agreed_Penalties_Policy_2021-22.pdf)). * Where a re-assessment opportunity exists, late or non-submission of work receives a mark of zero and is not eligible for a capped mark ([Agreed Penalties Policy](https://www.yorksj.ac.uk/media/content-assets/registry/policies/code-of-practice-for-assessment/30.Agreed_Penalties_Policy_2021-22.pdf) and [Reassessment](https://www.yorksj.ac.uk/students/exams-and-assessment/reassessment/)) * An extension to the published deadline may be granted to an individual student if they meet the eligibility criteria of the [Exceptional Circumstances policy](https://www.yorksj.ac.uk/media/content-assets/registry/policies/code-of-practice-for-assessment/16.Exceptional_Circumstances_Policy_2021-22.pdf). | | | | | |
| Note | | | | | |
| [Feedback Policy:](https://www.yorksj.ac.uk/media/content-assets/registry/policies/code-of-practice-for-assessment/31.Feedback_Policy_2021-22.pdf) Marks are to be returned to students with the caveat that all marks are provisional until final approval by the School Assessment Board (SAB). Confirmed marks will be made available via e:Vision after the SAB meeting. | | | | | |

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| **Assessment Component [and weighting]** | **Descriptors By Grade** | | | | | | |
| **One Page - What is OOP and why do we use it? [10%] One page PDF game overview. Core loop/game play** | [85%+] Excellent | [70-84%] Very Good | [60-69%] Good | [50-59%] Competent | [40-49%] Acceptable | [20-39%] Poor | [0-19%] Very Poor |
| ***8.5Points*** | ***7Points*** | ***6Points*** | ***5Points*** | ***4Points*** | ***2Points*** | ***0Points*** |
| **Game - Playable build [10%]** | [85%+] Excellent | [70-84%] Very Good | [60-69%] Good | [50-59%] Competent | [40-49%] Acceptable | [20-39%] Poor | [0-19%] Very Poor |
| ***8.5Points*** | ***7Points*** | ***6Points*** | ***5Points*** | ***4Points*** | ***2Points*** | ***0Points*** |
| **Game - Concept (from One Page) implemented [10%]** | [85%+] Excellent | [70-84%] Very Good | [60-69%] Good | [50-59%] Competent | [40-49%] Acceptable | [20-39%] Poor | [0-19%] Very Poor |
| ***8.5Points*** | ***7Points*** | ***6Points*** | ***5Points*** | ***4Points*** | ***2Points*** | ***0Points*** |
| **Game - Engine Use [10%]** | [85%+] Excellent | [70-84%] Very Good | [60-69%] Good | [50-59%] Competent | [40-49%] Acceptable | [20-39%] Poor | [0-19%] Very Poor |
| ***8.5Points*** | ***7Points*** | ***6Points*** | ***5Points*** | ***4Points*** | ***2Points*** | ***0Points*** |
| **Game - Demonstration [10%]** | [85%+] Excellent | [70-84%] Very Good | [60-69%] Good | [50-59%] Competent | [40-49%] Acceptable | [20-39%] Poor | [0-19%] Very Poor |
| ***8.5Points*** | ***7Points*** | ***6Points*** | ***5Points*** | ***4Points*** | ***2Points*** | ***0Points*** |
| **Essay - Game Overview [10%]** | [85%+] Excellent | [70-84%] Very Good | [60-69%] Good | [50-59%] Competent | [40-49%] Acceptable | [20-39%] Poor | [0-19%] Very Poor |
| ***8.5Points*** | ***7Points*** | ***6Points*** | ***5Points*** | ***4Points*** | ***2Points*** | ***0Points*** |
| **Essay - Game engine overview and reason for choosing [10%]** | [85%+] Excellent | [70-84%] Very Good | [60-69%] Good | [50-59%] Competent | [40-49%] Acceptable | [20-39%] Poor | [0-19%] Very Poor |
| ***9points*** | ***7points*** | ***6points*** | ***5points*** | ***4points*** | ***2points*** | ***0points*** |
| **Essay - Engine components used [10%]** | [85%+] Excellent | [70-84%] Very Good | [60-69%] Good | [50-59%] Competent | [40-49%] Acceptable | [20-39%] Poor | [0-19%] Very Poor |
| ***8.5Points*** | ***7Points*** | ***6Points*** | ***5Points*** | ***4Points*** | ***2Points*** | ***0Points*** |
| **Essay - How the engine supported the game [10%]** | [85%+] Excellent | [70-84%] Very Good | [60-69%] Good | [50-59%] Competent | [40-49%] Acceptable | [20-39%] Poor | [0-19%] Very Poor |
| ***8.5Points*** | ***7Points*** | ***6Points*** | ***5Points*** | ***4Points*** | ***2Points*** | ***0Points*** |
| **Essay - How the engine hindered the game [10%]** | [85%+] Excellent | [70-84%] Very Good | [60-69%] Good | [50-59%] Competent | [40-49%] Acceptable | [20-39%] Poor | [0-19%] Very Poor |
| ***8.5 points*** | ***7 points*** | ***6 points*** | ***5 points*** | ***4 points*** | ***2 points*** | ***0 points*** |