

ECM3423: Computer Graphics

Final Project - 3D Jurassic Park Scene



This image is only for illustration purposes and you are not required to generate this exact image.

University's policy: Referencing, and academic conduct You are required to cite the work of others used in your solution and include a list of references, and must avoid plagiarism, collusion and any academic misconduct behaviours. <https://vle.exeter.ac.uk/course/view.php?id=1957>

Submission: The project will be submitted in a ZIP file, on the **29th of November 2023, before noon**. As usual, late penalties will apply.

Assessment: The project will be worth 40% of your module mark.

Jurassic park scene

Following the success of “Jurassic Park Dominion” movie (28% on Rotten tomatoes), the aim of this project is to create a 3D model representing a scene in which dinosaurs wreaking havoc in London city. You can create that using your knowledge from the computer graphics lectures and workshops. The above example is only for illustration/guidance purposes and you are not required to generate an output same as this example.

There is no specific requirement on the number of the objects in the scene or how the scene is set up, however it must resemble a Jurassic park scene representing the dinosaurs’ invasion in London city. It can be as photo realistic or as cartoony as you like.

You are required to implement all the following concepts in your project:

- animated object (e.g. an object that is constantly rotating or moving forward/backward using keyboard or mouse events)
- lighting and illumination
- texture mapping
- environment mapping

Submission package: You are required to submit the following items:

- Code
- Python requirements.txt
- You must provide a demo video of your code. The assessment will receive a **zero mark** if there is no video submitted. This video must include:
 - walk through with voice explanations of the code by detailing the functionality of the code.
 - explicit explanation of how each concept (mentioned above) is implemented.
 - a demo of running the code and demonstrating the results and showcasing all the four concepts mentioned above live. The video must not be longer than **15 minutes** or penalties will apply (**-5 marks for each minute over the 15 minute limit**).

Criteria: When assessing this project, we will be looking for the following:

- The code must generate the required scene/objects with no artefact or bug.
- All the concepts are implemented properly.
- The code should be well documented, explaining well your design and reasoning.
- The code should be reasonably efficient and concise.
- The video should demonstrate how your code generates the results, how all the concepts are implemented as well as explaining the functionalities of various parts of the code.

Please note that your video must be uploaded to OneDrive and the link must be provided in the submission package. Also, please ensure the access to your video is given to anyone with the University of Exeter email address.