MURDOCH UNIVERSITY
PERTH, WESTERN AUSTRALIA

Semester/OUA, 2022

ICT101 – INTRODUCTION TO 3D GRAPHICS AND ANIMATION

Major Assignment Part 2 (30% of overall assessment)

Due Date: Refer to the Study Schedule on the LMS

SUBMISSION

Internal and External Students: You MUST submit your Assignment via the LMS.

All files must be ZIPPED INTO ONE ZIP FILE. Use the file naming convention written in the Unit Information and Learning Guide, and a signed electronic cover sheet MUST BE included. Submissions should be legible and typed.

EXTENSION AND LATE SUBMISSION ONLY

- **Unless a prior extension is obtained due to an illness or other serious unforeseen event, late submissions will incur a 5% deduction of the total daily marks (including weekends and public holidays). Before an extension can be granted, you must include supporting documentation to support your request for an extension.**
- **You are not permitted to negotiate with your tutor regarding the late submission of your Assignment. Only the Unit Coordinator can grant you the extension.**
- **Late submissions must also be submitted via the LMS.**
- **Please submit on time as the LMS will mark your submission as LATE if the deadline has passed.**
- **Please plan to submit ahead of time and consider your internet connection and file size.**
- **Work submitted more than 5 days late will not be marked.**

PLEASE MAKE SURE YOU HAVE A BACKUP OF YOUR SUBMISSION

OBJECTIVES

- To model a complete scene using suitable modelling techniques
- To create animation/s of the scene based on a theme or story

SOFTWARE

- Blender 2.80

DESCRIPTION

Major Assignment Part 2 is meant to demonstrate your skills in 3D modelling, animation and rendering of a complete scene with 3D objects in suitable textures/materials, lighting and shadows applied to them.

You can **ONLY** use **Blender 2.80**.

Referring to your approved proposal and continuing from Major Assignment Part 1, you need to include the following items in your scene and animation:

- **A theme or story:** For example, if the theme of your game deals with a post-war apocalyptic climate, then your scene and animation should reflect this. Alternatively, if the theme of your game is about underwater worlds, you can animate the scene as viewed through the handheld video camera of a scuba diver swimming through it.
- **A message for the audience:** In your animation, you should at least have one catchy message for the viewers. You can do it either using voice or text on the screen. You can do it as a slogan if you like (use your creativity and imagination). For example, for a post-war apocalyptic theme, your message can be

  "World War 3 just ended… All of the superpower nations have collapsed… It is time to put our differences and rebuild!

  A unique FPS-Action-Adventure game by Cranky Game Productions… Coming soon in Summer 2120

  Make sure the message/s reflect/s the animation you are creating.
- **A main "character":** You will need to include a main "character" in your animation. You must create this model yourself. You can use reference images to start modelling. Try to limit your main character to just one.

- **Background and additional models:** You can use or modify any publicly available 3D models. However, observe the copyright of the source. You need to indicate your source and the original author in your documentation.
- **Sound or background music:** You should include sound or background music for the animation. For this, you can use publicly available sources. Observe the copyright of the source. You should indicate clearly where the source of the sound or background music is from.
- **Generate a movie file:** You must produce a movie file (AVI, MOV, MPEG, etc.) for the animation. The movie file must be rendered at least at 1024x768 resolution. You must compress your video file using any of the freely available video converter software (e.g. Any Video Converter)
- **Minimum animation length:** The movie must be at least 60 seconds long, at least 24 frames per second.

You may need to refer to some online tutorials before you can start creating the scene and generating the animation.

SUBMISSION REQUIREMENTS

Submit the followings items with your Blender scene file (ZIP all the files into one ZIP file):

- Your reference images of the scene – whether from photographs, hand-drawn, websites etc. – will need to be included in the slides.
- Using between 10 to 20 Powerpoint slides (excluding Title and References slides), write the following items:
    - Description of the 2D or 3D modelling technique/s that you used and a few screen captures (at least 8 progress screen captures) on how you work through the model in the software. This should include any techniques used in texturing, mapping, lighting, shadow, illumination, etc.
    - The software and version used – Blender 2.80.
    - Provide the appropriate references of any external textures or materials (including backgrounds) etc., used with your model and for you to produce the scene. You can create a slide with a list or lists of the references you used.
    - 4 different views of the final rendered 3D scene – 1) final wireframe model, 2) final surface model with no texture, 3) final surface model with texture, 4) final rendered model with your choice of details (e.g. with shadows or light etc.). You should submit these files as JPG or PNG.
    - 1 final rendered movie file (AVI, MOV or MP4) demonstrates the overall/final scene you want to present.
- All of the files used to create your 3D scene (e.g., Blender scene files, textures, etc.).
- A Zipped file containing all relevant files needed for your tutor and/or lecturer to be able to open, view and assess your work in Blender 2.80.

<u>You are responsible for ensuring the scene you submitted can be opened and viewed in Blender.</u>

<u>A non-openable scene will not be marked.</u>

You will need to provide appropriate references for the materials you have used. If you are not sure how to cite references, please go to:

http://wwwlib.murdoch.edu.au/find/citation/

COMPONENTS OF ASSESSMENT

• The reference images	(5%)
• Powerpoint slides	
• Description of the 2D and/or 3D modelling techniques used	(10%)
• Description of how the texturing and mapping were done	(10%)
• Description of how the lighting, shadow or illumination was done	(10%)
• Progress screen captures	(20%)
• 4 different views of the final rendered 3D scene	(5%)
• Providing all the relevant files used to create the 3D scene	(10%)
• A final rendered movie file (AVI, MOV or MP4) that demonstrates the overall/final scene that you want to present	(30%)
Total	**(100%)**