

GXXXXXX: 3D Graphic Modelling

Assignment Two: Architectural Modelling and Presentation

Module Tutor: Kevin Woodman

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Learning Outcomes

This assignment will test the following learning outcomes:

- your understanding of bitmapped image concepts, mapping to solid objects, shading types and appropriate application;
- your ability to create bit mapped images and colour maps and to modify them to produce graphics images in a variety of formats; and
- your ability to design and implement a modelling production using a range of visual techniques.

Assessment Requirements

You are required to submit:

- a short animated presentation which must be submitted on a CD-ROM in a standard video format e.g. WMV, QuickTime, DIVX, XVID or FLV; and
- a short written report in support of the above. This report should:
 - include a title page, contents page, references and, if appropriate, appendices;
 - should be a maximum of 1000 words. The report is of secondary importance to the animation in this assignment ; and
 - follow the University guidelines for presentation.

Background Scenario

A popular use for 3D Graphics is to create architectural visualisations; indeed in some areas of the United States it is now compulsory to create these for any planned new build. Another common use for 3D Graphics is to create promotional material where the subject may not be available, often because details are yet to be finalised and a finished product does not exist.

For the purposes of this assignment you are being asked to create a short animation that features a model of a new building that incorporates some advanced eco-friendly features. Although the building itself does not yet exist the project sponsors wish to use your animation to raise interest amongst potential investors.

You have been provided with only a few design notes relating to specific features of the eco-building (see below) so the project sponsors are expecting you to use artistic licence to create a visually attractive animation.

Task

Your task is to create a promotional 3D animation that must include the following elements:

1. A model of the eco-building set in appropriate scenery.
2. Appropriate bitmapped textures applied to the modelled elements.
3. Appropriate lighting.
4. Particle effects which enhance the scene in some way.

You can use 3DS Max to create each of these elements or other software if you feel that this is more appropriate.

Design Notes

The specification for the design has been left intentionally vague however the following Web sites contain images that may prove useful.

<http://www.housebuying.eu/blog/2007/06/25/eco-housing-around-the-world/>

<http://www.metaefficient.com/archives/architecture-and-building/green-building-using-thinfilm-solar-.html>

<http://www.paddi.net/images/green.htm>

<http://www.designshare.com/index.php/projects/langston-high/images>

Suggestions

- When considering video formats remember that some FPS may not be suitable for viewing on a computer. It may be useful to create several versions of the animation at different resolutions and frame rates although this is not compulsory.
- There is no set running time for the animation but reasonably it should exceed 30 seconds.
- You do not have to create bipeds or other 'soft-body' elements.
- You can use some 3rd party files for your scene however your use of these should be kept to a minimum and you must correctly reference and such material that you use.
- We will have time to work on this assignment in class so you should think about the portability of your development files.
- Your development files are an important part of the assignment. Save revisions of your files appropriately.
- You do not have to model internal elements of the building but the complexity of your finished scene will be taken into account in marking.

Grading Criteria

This assignment is worth 40% of the final module grade.

A16-14	Exceptionally high standard of work. Very well detailed modelling combined with sophisticated texturing, lighting, effects and animation with a good sense of composition. High standard of grammar, structure, and presentation throughout the written report. Evidence of resources outside 3DS Max having been considered and used. Demonstrates a very good understanding of the subject and all learning objectives have been exceeded.
B13-11	A high standard of work. A highly detailed, well presented animation with appropriate texturing, lighting, effects and animation. The assignment shows clear evidence that all learning outcomes have been met and additional research is evident. A well presented report that has a high standard of presentation, grammar and structure. References are accurate and appropriate.

C10-8	A good standard of work. A detailed model with good use of lighting, textures, effects and animation. The assignment shows clear evidence that all learning outcomes have been met and some additional research is evident. The report demonstrates understanding and knowledge and is nicely presented with appropriate referencing.
D7-5	A satisfactory standard of work. A finished animation consisting of sufficient models, textures and lighting. The assignment shows clear evidence that all learning outcomes have been met. The report is satisfactorily presented with appropriate referencing.
E	A marginal fail. An unsatisfactory animation showing poor consideration or understanding of the 3D Graphics process. Assignment shows insufficient evidence that all learning outcomes met. The report fails to meet the objectives and does not demonstrate a satisfactory understanding.
F	Unsatisfactory work. An incomplete or very poor animation that demonstrates little knowledge or understanding of the subject.

Plagiarism

Plagiarism is a serious breach of University Assessment Regulations and can result in serious consequences.

You must correctly reference any and all material that comes from a third party. Additionally you must have permission to use third-party materials that may be subject to copyright.

For more information in respect of plagiarism please refer to the University Assessment Regulations at the following web address: <http://quality.newport.ac.uk>.

If you are in any doubt please contact the module tutor before submitting your assignment.