

## GXXXXXX: 3D Graphic Modelling

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**Assignment One:** Investigating the Use of 3D Modelling In Engineering

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**Issue Date:** 22<sup>nd</sup> October 2007

**Submission Date:** 21<sup>st</sup> April 2008

**Return Date:** 5<sup>th</sup> May 2007

### Learning Outcomes

This assignment will test the following learning outcomes:

- your understanding of the philosophy of engineering modelling;
- your understanding of the elements of visual images and animations that comprise product modelling productions; and
- your understanding of the components of and system requirements for modelling and animated simulation applications.

### Assessment Requirements

You are required to submit a written report which:

- includes a title page, contents page, references and, if appropriate, appendices;
- should be approximately 2500 words. A derivation of between -10% and +10% of this total is acceptable. Please remember that appendices do not count towards your final word count; and
- follows the University guidelines for presentation.

### Background Scenario

Your company has recently learned that a competitor has established a successful 3D Graphics department and in response it is considering opening a similar department. It is possible that the newly created department, if the plan goes ahead, would: carry out in-house projects; work for selected external partners; and, possibly, carry out more general contract work.

However before any final decision is made your board has asked for a technical report to be written for their consideration.

## Task

You have been asked to write a report which should cover the following points:

1. The potential uses of 3D Graphics in engineering. You should examine areas such as process and architectural visualisation and product design. For each area you should give relevant examples.
2. The software requirements for a 3D Graphics studio. You are required to examine each stage of the production process and identify possible candidate software for each stage. Your report should demonstrate your understanding of the stages of production.
3. The possible hardware requirements of a 3D Graphics studio. Your report should consider the hardware requirements for each aspect of the production process and give examples.
4. The viability of establishing such a department. This point should form part of your conclusion and be based upon your earlier points.

## Suggestions

- Try to keep in mind the scenario when compiling your report. Relate your findings to this where reasonable.
- Where appropriate consider alternatives and make comparisons.
- Your conclusion is important in this assignment and should be supported by your findings.
- When reviewing software and hardware requirements think about each stage of the production process i.e. modelling, texturing, lighting and rendering.

## Grading Criteria

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

A16-14	Exceptionally high standard of work. High standard of grammar, structure, and presentation throughout the report. The report has a clear, well-supported conclusion and is contains figures and examples where appropriate. A wide range of material is considered. Answers show a very good understanding of the subject and all learning objectives have been exceeded..
B13-11	A high standard of work. The assignment shows clear evidence that all learning

	outcomes have been met and additional research is evident. A well presented report that considers alternatives where appropriate. References are accurate and appropriate.
C10-8	A good standard of work. 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. The assignment shows clear evidence that all learning outcomes have been. The report is satisfactorily presented with appropriate referencing.
E	A marginal fail. 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 report 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.