

Course Code:

PELC242

Session:

2017/18

1. Course Title:

Introduction to 3D Modelling & Animation

2. Date of production/revision:5th May 2016**3. Level:**

11

4. Credits:

15

5. Lead School/Board of Studies:

DDS

6. Course Contact:

Mike Marriott

7. Course Aims:

This course will introduce students to the basics of 3D Modelling and Animation.

The main focus of the course is to provide students with the skills to plan, model, texture and animate simple 3D content.

Throughout this course, students will gain understanding and experience of the principles and practice of preparing 3D models derived from acquired 2D data for use in real-time and pre-rendered applications.

8. Intended Learning Outcomes of Course:

By the end of this course students will be able to:

Students completing this course will:

- Demonstrate a critical understanding of a range of specialised principles and concepts of 3D modelling for visualisation.
- Plan and execute a visualisation project, from data provided
- Use a range of software to support and enhance 3D modelling work, and undertake critical evaluations of the range of 3D data and models used and created.

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<p>9. Indicative Content:</p> <p>This course is for students who have no or little experience in working with 3D modelling applications. A range of principles, techniques and tools for effective modelling and optimisation of 3D models using data (3D and texture) acquired from the real world.</p> <p>Students will learn how to work with and will gain an increased understanding and awareness of the differences in requirements for these types of applications.</p> <p>The course will cover the following, indicative, topics:</p> <ul style="list-style-type: none"> - Fundamental 3D modelling skills and principles - Model detail and quality: automatic decimation and manual - Level of detail for pre-rendered and real time applications, and optimisation - Photo-texturing for games and interactive environments (including: UV mapping, repeating textures - photo-texturing with different 3D levels of detail - Normal and bump mapping) for higher quality with lower level of detail - 3D camera & lighting - Introduction to post-processing of rendered animations (with e.g. Adobe After Effects)
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10. Description of Summative Assessment:				
No.	Assessment Method	Description of Assessment Method	Weight %	Submission week (assignments) or length (exam)
1	Portfolio of practical work & written critique	For summative assessment, students will develop a portfolio of work in developing simple 3D models and scenes. The portfolio and a short written self-assessment critique will be assessed against the learning outcomes of the course.	100	End of course (week 12)
<p>For summative assessment, students will develop a portfolio of work in developing simple 3D models and scenes. The portfolio and a short written self-assessment critique will be assessed against the learning outcomes of the course.</p> <p>Coursework: 100%</p>				
10.1 Please describe the Summative Assessment arrangements:				
A series of small assessments together with a short written report will together form a portfolio of work for assessment.				

<p>11. Formative Assessment:</p> <p>Individual feedback is available during tutorials to provide formative assessment. The wide range of coursework will provide the bulk of formative and summative assessment for the full range of 3D modelling and animation skills.</p>
11.1 Please describe the Formative Assessment arrangements:
Formative feedback will be provided regularly at tutorials. All students will have at least one

formative assessment crit during weeks 4 or 5 of the course.

12. Collaborative:

Yes

No

12.1 Teaching Institutions:

4T

13. Requirements of Entry:

None

14. Co-requisites:

None

15. Associated Programmes:

All GSA PGT Programmes

16. When Taught:

Term 2 (PGT stage 2)

17. Timetable:

9 Weekly classes – 2 hours teaching time per week

18. Available to Visiting Students:

Yes

No

19. Distance Learning:

Yes

No

20. Placement:

Yes

No

21. Learning and Teaching Methods:

Method	Formal Contact Hours	Notional Learning Hours (Including formal contact hours)
Lecture	9	9
Studio		
Seminar/Presentation		
Tutorial	9	9
Workshop		
Laboratory work		21
Project work		75

Professional Practice		
E-Learning / Distance Learning		
Placement		
Examination		
Essay		
Private Study	Not Applicable	36
Other (please specify below)		
TOTAL	18	150

22. Description of "Other" Teaching and Learning Methods:

N/A

23. Additional Relevant Information:

24. Indicative Bibliography:

Harper, J., 2012. Mastering Autodesk 3ds Max 2013, Wiley

Autodesk, 2014, 3DS Max Design Tutorials, [online] Available at:

<http://docs.autodesk.com/MAXDES/16/ENU/3ds-Max-Design-Tutorials/> [Accessed 1st July 2014]

Keller, E, 2011, Introducing Z-brush, Wiley