Liverpool John Moores University

Title:	CAD & COMPUTER VISUALISATION
Status:	Definitive
Code:	**5531TPR** (118564)
Version Start Date:	01-08-2018
Owning School/Faculty:	Liverpool Screen School
Teaching School/Faculty:	Liverpool Institute for Performing Arts

Team	Leader
Mark Smith	Y

Academic Level:	FHEQ5	**Credit Value:**	12	**Total Delivered Hours:**	26
Total Learning Hours:	120	**Private Study:**	94		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Tutorial	2
Workshop	24

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	PORTFOLIO	CAD portfolio of 2D and 3D designs	100	

Aims

This module will develop the skills, understanding and knowledge required to draw-up, develop, edit and present designs and plans using Computer Aided Design applications. Communicating technical detail effectively and accurately is a vital skill for a theatre technician or designer, and this module will be assessed on the quality of that information and its layout. Creating working elevations and plans showing all functional elements, especially the masking around a set is a vital process for set designer, production manager, lighting, stage management and sound teams alike,

and the ability to read and edit accurate detailed computer drawings is becoming essential.

It will also examine the creative visualisation of a three-dimensional space using graphic rendering packages, translating wire frame drawings into more expressive visualisations.

Learning Outcomes

After completing the module the student should be able to:

1	Communicate and express ideas and information accurately, creating text, graphics, visual and technological designs in two and three-dimensional forms, developing the appropriate visual and organisational skills to present ideas clearly
2	Evaluate and document the design and production process, through the effective and accurate use of sketches and significant technical computer plans of working spaces and setting

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

PORTFOLIO	1	2

Outline Syllabus

The Course will look at two-dimensional computer drafting at the outset, the use of coordinates, lines, colour, symbols and shading to represent real space and objects.

It will examine document layout, using limits, layers, colours and labels to annotate and organise information.

It will explain some of the more commonly used tools within CAD packages, and how to develop designs for performance most efficiently using computer technology.

We consider working at scale and presenting plans at different scales, adding title and information to drawing and showing or hiding details as appropriate.

Moving into representing three-dimensional space, it will examine the third coordinate, representation of solid objects, surfaces, and the use of libraries of symbols and objects to speed design.

It will examine the importance of working ground plans and elevations for the production planning process, and the most appropriate way to present work for a scenic workshop.

Learning Activities

The module covers several computer aided design and visualisation packages across the module. Most sessions will be split into groups of no more than 17 students, working practically with various packages within a dedicated computer suite. There are individual computers for personal use, and computer projection equipment to demonstrate functions and share designs across the groups. There is also a colour A0 plotter to print out large-scale plans and designs. The course will reinforce earlier classes on working at scale and creating graphic representations of design, by introducing the benefits of working within a computer environment, where the copying and editing of complex information is a much more efficient process than in hand drafting, and design can be formatted in a number of ways to suit the reader. Specific online help links will support the students enrolled on this module and in later practice, with links to internet tutorial, graphic resources and discussion boards to share information and seek peer support.

Students will submit a portfolio of electronic designs and printed plans, with a presentation visualising the spaces and events they have designed to demonstrate their competence in the software and their visual communication skills.

Notes

Students may need to purchase large paper for printing scale drawings, and be prepared to print small black and white, and colour work for presentation under their own steam or using LIPA's subsidized student resources. All software is provided by LIPA for use on-site in a dedicated computer suite. CD-Rs or USB drives are recommended for the submission of large files and presentations.