

APPROVED**ARCH6083: Arch Graphics: 3D fundamentals****Module Details**

Module Code:	ARCH6083
Title:	Arch Graphics: 3D fundamentals APPROVED
Long Title:	Arch Graphics: 3D fundamentals
NFQ Level:	Fundamental
Valid From:	Semester 1 - 2020/21 (September 2020)
Duration:	1 Semester
Credits:	5
Field of Study:	5810 - Architecture & Urban Environment
Module Delivered in:	2 programme(s)
Module Description:	The module provides an introduction to the skills, procedures and commands required to produce 2D/3D virtual model of buildings through Building Modelling Software packages to professional architectural standards. Introduction into 3D Sketching software. Professional practice preparation skills will be introduced.

Learning Outcomes	
On successful completion of this module the learner will be able to:	
#	Learning Outcome Description
LO1	Apply basic computer commands in the production of a virtual model of a building, using Building modelling software.
LO2	Apply the principles of Building Information Modelling through Building Modelling Software.
LO3	Graphically express the structure and design concept of a building through 3D computer Sketch-modelling software.
LO4	Apply the skills of Sketch-modelling software and building modelling software to produce graphic presentation boards.
Dependencies	
Module Recommendations	
Incompatible Modules	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements	
No requirements listed	

Indicative Content
Building Design Modelling Brief overview of Building Modelling Software, grids & levels, walls, pad foundations, columns and floor modifications, creating structural joints, inputting and manipulating structural elements from families, creating sheet layouts in multiple scales, simple basement construction.
3D Visualisation SketchUp SketchUp software to be used in conjunction with a studio project. 3D Computer visualisation used as a graphical aid to explore the structure, form & design intent of a selected building. Simple massing models, basic geometry, material application, editing, components, groups, animation, styles, light & shadows.

Module Content & Assessment

Assessment Breakdown	%
Coursework	100.00%

Assessments

Coursework			
Assessment Type	Project	% of Total Mark	50
Timing	Week 6	Learning Outcomes	3,4
Assessment Description 3D computer visualisation: exploring the form & structure of a building through Sketch-modelling software.			
Assessment Type	Project	% of Total Mark	50
Timing	Every Second Week	Learning Outcomes	1,4
Assessment Description Building Modelling Software: 2D & 3D computer drawing.			
No End of Module Formal Examination			
Reassessment Requirement			
Coursework Only This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination.			

Module Workload

Workload: Full Time					
Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
Lab	Contact	Sketchup and Revit	Every Week	4.00	4
Independent & Directed Learning (Non-contact)	Non Contact	Completion of studio project work	Every Week	3.00	3
Total Hours					7.00
Total Weekly Learner Workload					7.00

Workload: Part Time

Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
Lab	Contact	Sketchup and Revit	Every Week	4.00	4
Independent & Directed Learning (Non-contact)	Non Contact	Completion of studio project work	Every Week	3.00	3
Total Hours					7.00
Total Weekly Learner Workload					7.00
Total Weekly Contact Hours					4.00

Module Resources*Recommended Book Resources*

Aidan Chopra. (2008), Google SketchUp 8 For Dummies, John Wiley & Sons Inc, New Jersey, [ISBN: 9780470916827].
 Eric Wing. (2017), Autodesk Revit 2017 for Architecture, 1st. Sybex, [ISBN: 978111924330].

Supplementary Book Resources

Robin de Jongh. (2010), SketchUp 7.1 for Architectural Visualization, 1st Ed. Packet Publishing, Birmingham, UK, [ISBN: 9781847199461].

This module does not have any article/paper resources

This module does not have any other resources

Module Delivered in

Programme Code	Programme	Semester	Delivery
CR_CARCT_8	Bachelor of Science (Honours) in Architectural Technology	-1	Mandatory
CR_TARCH_7	Bachelor of Science in Architectural Technology	-1	Mandatory