

## ARCH6072: Architectural Graphics

Module Details	
Module Code:	ARCH6072
Title:	Architectural Graphics <b>APPROVED</b>
Long Title:	Architectural Graphics
NFQ Level:	Fundamental
Valid From:	Semester 1 - 2019/20 ( September 2019 )
Duration:	1 Semester
Credits:	5
Field of Study:	5810 - Architecture & Urban Environment
Module Delivered in:	<a href="#">2 programme(s)</a>
Module Description:	Architectural Graphics introduces virtual modeling of building using BIM software. It further develops the CAD practical skills and contextual knowledge required in a professional Architectural Practice. The module develops the graphical representation techniques used in architectural drawings using digital and traditional hard-line, pen and freehand drawing, including, oral and written presentation skills.

Learning Outcomes	
On successful completion of this module the learner will be able to:	
#	Learning Outcome Description
LO1	Convey graphically, architectural conventions and representations in 2D & 3D using computer aided drawing software to architectural practice standards.
LO2	Convey graphically, architectural conventions and representations through free hand sketching and manual drafting to architectural practice standards.
LO3	Apply various forms of presentation skills visually, orally and written
LO4	Apply basic 2D CAD commands to generate a set of drawings that describe technical design solutions for a building to professional practice standards.
LO5	Apply fundamental skills of Building Modelling software
LO6	Produce drawings using digital software
Dependencies	
Module Recommendations	
Incompatible Modules	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements	
No requirements listed	

Indicative Content
<b>Graphics</b> Hand drawing & rendering skills. Exploration of graphic drawing through different mediums, 3D drawing, ink drawing, exploded axonometric drawings of structural elements, one point and two point perspectives, colour rendering, achieving elevation depth and shading, orthographic views of simple house to architectural practice standard.
<b>CAD</b> Intermediate understanding and application of the draw and modify commands for 2D computer drawing using CAD software. Creation of a customised working interface & short cut commands. CAD commands, menus and palettes. Format, layers, blocks, hatch, properties, text & dimensioning, scaling objects, scaling using point and reference. Editing – polyline, text for style, copy, fillet, extend trim, rotate, move mirror, offset. Zoom – window, previous, extent, all pan. Hatching – patterns, scaling, angle, selecting from boundaries, or points. Dimensions – linear, radius, angular, leader, setting up dimension styles. Layering & use of properties – Layer visibility, Layer States, Layer properties editing, deleting, renaming, selecting pen widths, templates, colours & linetypes. Model, layout tabs, viewports – create, use layout settings and create and edit layout view ports. Export/importing – text, images from other packages into CAD, exporting CAD to other window based packages. Plot drawings – page setup plot configuration, black & white and colour printing, plot to printer, plot to file/pdf, plot styles. Drawing utilities – purge, rename, creating and accessing attributes. X-referencing – Model space layouts creating multiple viewports, inserting raster images.
<b>BIM Modelling</b> Working with the BIM Interface, Commands, and Terminology. Basic modelling commands. Creating levels and grids. Creating walls, floors and roofs. Hosting elements in walls. Editing boundaries.
<b>Communication and Presentation</b> Visual, written, drawn and oral presentation skills. Architectural appreciation, introduction to architectural language, proportion, scale and design concepts, visual written and oral analysis.

Module Content & Assessment	
Assessment Breakdown	%
Coursework	100.00%

## Assessments

Coursework			
Assessment Type	Project	% of Total Mark	40
Timing	Every Week	Learning Outcomes	4,6
<b>Assessment Description</b> 2D computer aided drawing; plans, sections, elevations & details.			
Assessment Type	Project	% of Total Mark	40
Timing	Every Second Week	Learning Outcomes	2,3
<b>Assessment Description</b> Graphics: A3 graphic exercise to include hand drawing and rendering skills in ink pen, sketch studies, 3D drawing.			
Assessment Type	Project	% of Total Mark	20
Timing	Week 13	Learning Outcomes	1,5,6
<b>Assessment Description</b> Virtual 2D & 3D computer drawing and renders			
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
Tutorial	Contact	Studio based delivery of graphical representation	Every Week	2.00	2
Tutorial	Contact	2D CAD drawing	Every Week	2.00	2
Tutorial	Contact	Virtual modelling of a simple structure	Every Week	1.00	1
Independent & Directed Learning (Non-contact)	Non Contact	Completion of Lab and Studio Coursework	Every Week	2.00	2
Total Hours					7.00
Total Weekly Learner Workload					7.00
Total Weekly Contact Hours					5.00

**Workload: Part Time**

Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
Tutorial	Contact	Studio based delivery of graphical representation	Every Week	2.00	2
Tutorial	Contact	2D CAD drawing	Every Week	2.00	2
Tutorial	Contact	Virtual modelling of a simple structure	Every Week	1.00	1
Independent & Directed Learning (Non-contact)	Non Contact	Completion of Lab and Studio Coursework	Every Week	2.00	2
Total Hours					7.00
Total Weekly Learner Workload					7.00
Total Weekly Contact Hours					5.00

**Module Resources***Recommended Book Resources*

Francis D. K. Ching. (2015), Architectural Graphics, Sixth. Wiley, New Jersey, [ISBN: 111903566X].  
 Fraser Reekie. (1995), Reekie's Architectural Drawing, Routledge, London and New York, [ISBN: 9780415502962].  
 Francis D. K. Ching with Steven P. Juroszek. (2010), Design Drawing, John Wiley & Sons Inc, New Jersey, [ISBN: 9780470533697].  
 Miriam Delaney & Anne Gorman. (2011), Studio Craft & Technique, UCD, [ISBN: 1905254547].  
 Scott Onstott. (2017), AutoCAD 2018 and AutoCAD LT 2018 Essentials, Sybex, Indianapolis, Indiana, [ISBN: 9781119386780].  
 Ryan Duell, Tobias Hathorn, Tessa Reist Hathorn. (2015), Autodesk Revit Architecture 2016 Essentials, Sybex, Indianapolis, Indiana, [ISBN: 9781119059882].

*Supplementary Book Resources*

Rosie Parnell and Rachel Sara with Charles Doidge and Mark Parsons. (2007), The Crit, Second. Routledge, London and New York, [ISBN: 9780750682251].  
 Bill Fane. (2016), AutoCAD 2018 for Dummies, John Wiley & Sons Inc, New Jersey, [ISBN: 978119255796].  
 Mo Zell. (2008), The Architectural Drawing Course, Thames & Hudson, London, [ISBN: 9780500287286].

*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	<a href="#">Bachelor of Science (Honours) in Architectural Technology</a>	-1	Mandatory
CR_TARCH_7	<a href="#">Bachelor of Science in Architectural Technology</a>	-1	Mandatory