

SYST: BIM for Civil Engineers

Module Title:		BIM for Civil Engineers				
Language of Instruction:		English				
Credits: 5						
NFQ Level:	7					
Module Deli	ivered In	1 programme(s)				
Teaching & Learning Strategies:		Creating and Editing BIM models using Autodesk Revit and Civil 3D software Private study				
Module Aim:		The aim of this module is to develop a practical knowledge of creating and editing BIM models of Civil / Structural Engineering works.				
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Learning O	Learning Outcomes					
On successi	On successful completion of this module the learner should be able to:					
LO1	produce a 3D model of a Reinforced Concrete building frame using Autodesk Revit Structures					
LO2 produce a 3D mo		odel of a Structural Steelwork building frame using Autodesk Revit Structures				

On successfu	On successful completion of this module the learner should be able to:		
LO1	produce a 3D model of a Reinforced Concrete building frame using Autodesk Revit Structures		
LO2	produce a 3D model of a Structural Steelwork building frame using Autodesk Revit Structures		
LO3	import survey points and figures into Civil 3D		
LO4	create a digital models of a road project in Civil 3D		
LO5	create drainage and water main networks in Civil 3D		
LO6	produce general arrangement and detailed drawings from 3D BIM models created in Autodesk Revit Structures or Civil 3D.		

Pre-requisite learning				
	Pecommendations or learning (or a practical skil	II) that is recommended before enrolment in this module.		
9495	SURV C2501	Civil Engineering Drawing and Surveying		
Incompatible Modules These are modules which have learning outcomes that are too similar to the learning outcomes of this module.				
No incompatible modules listed				
Co-requisite Modules				
No Co-requisite modules listed				
Requirements This is prior to proceed a civil that is mandaton, before applicant in this module is allowed.				

Time to prior tourning (or

 $\textit{This} \ \text{is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.}$

No requirements listed



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Module Content & Assessment

Indicative Content

a, Create a reinforced concrete building model. Foundations, Columns, walls, beams, slabs, reinforcement & schedules, b. create a structural steelwork building model Foundations, columns, beams, decking, bracing & connections c. Lift shaft and stairs, d. openings, e. rebates, f. materials, g. Creating sheets and plotting

Importing survey data into Civil 3D
Toolspace, Civil 3D templates, Descriptions keys, Survey database, Figures prefix database, Importing points, Linework & Surfaces

Road Design using Civil 3D

Create a Civil 3D model for a road Project. Alignments, Profiles, Assemblies, corridors, Cross Sections and Plotting Junctions and roundabouts

Drainage and Water Main Networks using Civil 3D

Network layout, pipes, structures, longitudinal sections and plotting

Assessment Breakdown	%
Practical	100.00%

No Continuous Assessment

No Project

Practical	ctical			
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Practical's using Civil 3D and Revit software	1,2,3,4,5,6	100.00	n/a

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment



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Module Workload

Workload: Full Time		
Workload Type	Frequency	Average Weekly Learner Workload
Practicals	12 Weeks per Stage	8.00
Estimated Learner Hours	12 Weeks per Stage	4.50
	Total Hours	150.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_CMCIV_D	Bachelor of Engineering in Civil Engineering	6	Mandatory