Module Title:	BIM for Civil Engineers
Language of Instruction:	English

Credits:	5

NFQ Level:	7

Module Delivered 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.

Learning Outcomes	
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		
Module Recommendations *This is prior learning (or a practical skill) 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 learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*		
No requirements listed		

Module Content & Assessment

Indicative Content
Revit Structures 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				
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

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