

TECH C4G02: Advanced Construction Technology

Module Title:			Advanced Construction Technology			
Language of	f Instructior	n:	English			
Credits:		5				
NFQ Level:		8				
Module Delivered In			2 programme(s)			
Teaching & Learning Strategies:			Lectures Projects Private study			
Module Aim:			The aims of the subject are: (1) to develop advanced knowledge in construction technology techniques (2) to develop advanced understanding in complex structures (3) to develop skills in the selection of technologies for construction projects			
Learning Outcomes						
On successfu	ul completior	n of th	nis module the learner should be able to:			
LO1	to identify and describe advanced structural frames					
LO2	to identify a	and d	escribe fire resistance techniques			
LO3	to identify a	and d	escribe services and cladding details			
Pre-requisite	e learning					
Module Recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module.						
No recomme	ndations list	ed				
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 requireme	ents listed					



Module Content & Assessment

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Indicative Content (1) Reinforced Concrete Frames (a) Layout options, structural design issues, services design issues (b) Vertical load paths, horizontal load paths (c) Construction methods (d) Prestressed concrete floors (e) Roof Construction and Details (2) Steel Frame Structures (a) Layout options, structural design issues, services design issues (b) Floor slab configurations (c) Roof Construction and Details (d) Steel (e) Construction methods (f) Fire Protection (g) Services Integration (h) Durability – Paint specs, galvanizing (i) Building Type Examples (3) Precast Concrete (a) Floors (b) Stairs (c) Walls (4) Fire (a) Fire resistant construction (b) Fire Projection during construction (c) Fire stopping (d) Design for egress (e) Fire Fighting provisions (5) Cladding / Curtain Walling (a) Façade Engineering (b) Examples of common cladding / curtain walling (c) Façade Retention Systems (6) Services (a) Service types (b) Service routes (c) Integration with structure (d) Highly serviced buildings (e) Elevators Assessment Breakdown % Project 40.00% End of Module Formal Examination 60.00% No Continuous Assessment Project Assessment Type Assessment Description Outcome % of Assessment addressed total Date Project Various 1,2,3 40.00 n/a No Practical End of Module Formal Examination % of Assessment Date Assessment Type Assessment Description Outcome total addressed Formal Exam n/a 1,2,3 60.00 End-of-Semester

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
Lecture	12 Weeks per Stage	3.00
Practicals	12 Weeks per Stage	1.00
Estimated Learner Hours	12 Weeks per Stage	8.00
	Total Hours	144.00

Module Delivered In					
Programme Code	Programme	Semester	Delivery		
CW_CMOPT_B	Bachelor of Science (Honours) in Construction Management	7	Mandatory		
CW_CMQSU_B	Bachelor of Science (Honours) in Quantity Surveying	7	Mandatory		