

Module Title:	Advanced Construction Technology
Language of Instruction:	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	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	to identify and describe advanced structural frames
LO2	to identify and describe fire resistance techniques
LO3	to identify and describe services and cladding details
Pre-requisite learning	
Module Recommendations	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements	
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

Module Content & Assessment

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 addressed	% of total	Assessment Date
Project	Various	1,2,3	40.00	n/a

No Practical

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
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

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
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_CMOPB_B	Bachelor of Science (Honours) in Construction Management	7	Mandatory
CW_CMQSU_B	Bachelor of Science (Honours) in Quantity Surveying	7	Mandatory