

<b>Module Title:</b>	Integrated Construction Technology Project
<b>Language of Instruction:</b>	English
<b>Credits:</b>	5
<b>NFQ Level:</b>	6
<b>Module Delivered In</b>	<a href="#">3 programme(s)</a>
<b>Teaching &amp; Learning Strategies:</b>	Lectures Practicals Site Visits Private study Project work
<b>Module Aim:</b>	To provide the student with the opportunity to apply and develop the knowledge and skills learned on the programme to solve construction problems, and in doing so extend the student's experience in problem solving, communication, teamwork, project management and construction technology.
<b>Learning Outcomes</b>	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	to develop problem solving abilities by identifying the problem/s and proposing both standard and innovative built environment solutions for a realistic development / re-development projects
LO2	to develop critical thinking by evaluating the proposed solutions in terms of time, cost, quality, safety and compliance with legislation / regulations
LO3	to apply technical knowledge and skills from other programme modules to the proposed solutions including the application of BIM where appropriate.
LO4	to develop project, time management, project reporting, report writing, presentation, peer evaluation and project defence skills in completing the research project
<b>Pre-requisite learning</b>	
<b>Module Recommendations</b> <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
<b>Incompatible Modules</b> <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
<b>Co-requisite Modules</b>	
No Co-requisite modules listed	
<b>Requirements</b> <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

#### Creativity & Problem Solving

a) Generating Creative Ideas; b) Key Principles for Encouraging Creativity; c) Linking Problems & Solutions; d) Defining Problems; e) Problem Solving; f) Evaluating and Selecting Ideas in a Group;

#### Critical Thinking

a) Interpreting express and implied meanings; b) Thinking logically; c) Formulating problems clearly and precisely; d) Gathering and assessing relevant information ; e) Using abstract ideas to interpret it effectively; f) Coming to well-reasoned conclusions and solutions ; g) Testing conclusions & solutions against relevant criteria and standards; h) Recognizing and assessing assumptions, implications, and practical consequences ; i) Communicating effectively with others in figuring out solutions to complex problems;

#### Working in Teams

a) Purpose and value of teams; b) When teams are appropriate and when they are not; c) Team formation and operation; d) Dealing with Extrovert / Introvert team members; e) Phases of team building & understanding negative team processes; f) Team conflict resolution; g) Team talent management; h) Effective evaluation techniques; i) Application of team building activities

#### Outline Project Brief

a) Teams of 3/4 students; b) Outline proposals for development / re-development of a property; c) Promote competition between teams; d) Team proposals evaluated on basis of technical feasibility, innovation and economic feasibility

#### Personal Development

a) Time Management b) Presentation Skills c) Interview Skills d) Academic / technical writing skills

#### Building Information Modelling Assistance

Use of BIM to support the Integrated Construction Technology Project

Assessment Breakdown	%
Project	100.00%

No Continuous Assessment

### Project

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	In groups of 3/4, students to be issued with 3 of the indicative options below. Project 1 - Options for Piling Selection (2,500 word report) (10 minute presentation) Project 2 - Options for Building Base Selection (2,500 word report) (10 minute presentation) Project 3 - Options for Walls, Floors Selection (2,500 word report) (10 minute presentation) Project 4 - Options for Upper Floors Selection (2,500 word report) (10 minute presentation) Project - Options for Roof Selection (2,500 word report) (10 minute presentation)	1,2,3,4	100.00	n/a

No Practical

No End of Module Formal Examination

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

**Module Workload**

<b>Workload: Full Time</b>		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecturer-Supervised Learning (Contact)	12 Weeks per Stage	4.00
Estimated Learner Hours	12 Weeks per Stage	8.00
Total Hours		144.00

**Module Delivered In**

Programme Code	Programme	Semester	Delivery
CW_CMOPB_B	<a href="#">Bachelor of Science (Honours) in Construction Management</a>	5	Mandatory
CW_CMQSU_B	<a href="#">Bachelor of Science (Honours) in Quantity Surveying</a>	5	Mandatory
CW_CMBSE_D	<a href="#">Bachelor of Science in Construction Management</a>	5	Mandatory