

**APPROVED****ARCH6054: Studio: Concrete & Masonry****Module Details**

<b>Module Code:</b>	ARCH6054
<b>Title:</b>	Studio: Concrete & Masonry <b>APPROVED</b>
<b>Long Title:</b>	Studio: Concrete & Masonry
<b>NFQ Level:</b>	Fundamental
<b>Valid From:</b>	Semester 1 - 2019/20 ( September 2019 )
<b>Duration:</b>	1 Semester
<b>Credits:</b>	10
<b>Field of Study:</b>	5810 - Architecture & Urban Environment
<b>Module Delivered in:</b>	<a href="#">2 programme(s)</a>
<b>Module Description:</b>	Technical Design Studio 2 explores simple structures in concrete and in masonry.

Learning Outcomes	
<i>On successful completion of this module the learner will be able to:</i>	
#	Learning Outcome Description
LO1	Interpret traditional building materials, systems and technologies in concrete and masonry.
LO2	Discuss theory, principles and science in the technical design process.
LO3	Identify and evaluate information, apply critical judgement and formulate a structural solution for a building in masonry or concrete.
LO4	Differentiate the stages in the building design process related to technical design.
LO5	Analyse and apply fundamental building regulations and legislation to a domestic building.
Dependencies	
<b>Module Recommendations</b>	
<b>Incompatible Modules</b>	
No incompatible modules listed	
<b>Co-requisite Modules</b>	
No Co-requisite modules listed	
<b>Requirements</b>	
No requirements listed	

Indicative Content
<b>Methodology, Pedagogy</b> Exploration of structure and form through sketching, technical drawing and models. Experiencing Architecture through senses. Development of drawing conventions. Exploration of materials. Examination of design concepts and technical design through exploration of exemplary architecture.
<b>Technical Design</b> Introduction to the basic principles of building regulations and legislation. Learning how to apply relevant regulations to a domestic building.
<b>Principles</b> Principles of technical design for floors, roof, enclosure, load bearing, non load bearing, junctions and openings in concrete and masonry construction

**Module Content & Assessment**

Assessment Breakdown	%
Coursework	100.00%

**Assessments**

Coursework			
<b>Assessment Type</b>	Project	<b>% of Total Mark</b>	22
<b>Timing</b>	Week 3	<b>Learning Outcomes</b>	3
<b>Assessment Description</b> Analyse a window and door as individual components and location within a masonry/concrete wall construction (2D and 3D drawings, plans, sections, elevations).			
<b>Assessment Type</b>	Project	<b>% of Total Mark</b>	24
<b>Timing</b>	Week 6	<b>Learning Outcomes</b>	3,4,5
<b>Assessment Description</b> Stage 1: Propose structure for simple masonry building; external and internal wall configurations, load bearing and non load bearing, floor and roof structure.			
<b>Assessment Type</b>	Project	<b>% of Total Mark</b>	24
<b>Timing</b>	Week 9	<b>Learning Outcomes</b>	1,2,3,4
<b>Assessment Description</b> Stage 2: Analyse the building fabric of a simple masonry building at foundation/external wall/ground floor junction, external wall/intermediate floor junction and eaves junction through drawings and group model.			
<b>Assessment Type</b>	Project	<b>% of Total Mark</b>	30
<b>Timing</b>	Week 13	<b>Learning Outcomes</b>	1,2,3,4,5
<b>Assessment Description</b> Stage 3: Produce a set of working drawings that illustrate technical solutions for a simple masonry building with a pitch roof.			
No End of Module Formal Examination			
Reassessment Requirement			
<b>Coursework Only</b> <i>This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination.</i>			

## Module Workload

Workload: Full Time					
Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
Lecture	Contact	Studio based delivery of module	Every Week	1.00	1
Independent & Directed Learning (Non-contact)	Non Contact	Completion of studio assignments	Every Week	12.50	12.5
Tutorial	Contact	Group tutorial	Every Week	0.50	0.5
Total Hours					14.00
Total Weekly Learner Workload					14.00
Total Weekly Contact Hours					1.50

  

Workload: Part Time					
Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
Lecture	Contact	Studio based delivery of module	Every Week	1.00	1
Tutorial	Contact	Group tutorial	Every Week	0.50	0.5
Independent & Directed Learning (Non-contact)	Non Contact	Completion of studio assignments	Every Week	12.50	12.5
Total Hours					14.00
Total Weekly Learner Workload					14.00
Total Weekly Contact Hours					1.50

## Module Resources

Recommended Book Resources
<p>Roy Chudley, Roger Greeno BA(Hons.) FCIQB FIPHE FRSA. (2016), Building Construction Handbook, 11th. Routledge, [ISBN: 9781138907096].</p> <p>Francis D. K. Ching. (2014), Building Construction Illustrated, 5th. John Wiley &amp; Sons, Hoboken, N.J., [ISBN: 9781118548341].</p> <p>Stephen Emmitt. (2018), Barry's Introduction to Construction of Buildings, 4th. Wiley-Blackwell, [ISBN: 9781118977163].</p> <p>J S Foster, Roger Greeno. (2007), Mitchell's Structure &amp; Fabric, 7th. Pearson Education Limited, England, [ISBN: 9780131970946].</p> <p>Department of the Environment, Heritage and Local Government. (2017), Building Control Act, Building Regulations and Technical Guidance Documents, Government Publications.</p> <p>Miriam Delany, Anne Gorman. (2015), Studio Craft &amp; Technique for Architects, Laurence King Publishing, London, England, [ISBN: 9781780676579].</p>
Supplementary Book Resources
<p>Eugene Farrell, John A McCarthy, Anthony McFeely. (1993), Homebond House Building Manual, 7th. National House Building Guarantee, Dublin, [ISBN: 9780952361466].</p> <p>Stephen Emmitt, John Olie, Peter Schmid. (2004), Principles of Architectural Detailing, 1st. Wiley-Blackwell, [ISBN: 9781405107549].</p> <p>Andrea Deplazes (Editor), G. H. Söffker (Translator). (2018), Constructing Architecture: Materials, Processes, Structures; a Handbook, 4th. Birkhauser Verlag AG, Basel-Boston-Berlin, [ISBN: 9783035616699].</p> <p>Pamela Buxton. (2018), Metric Handbook, 6th. Routledge, [ISBN: 9781138714687].</p> <p>Ernest Neufert, Peter Neufert. (2012), Architects' Data, 4th. Wiley-Blackwell, [ISBN: 9781405192538].</p> <p>Victoria Ballard Bell, Patrick Rand. (2006), Materials for Architectural Design, 1st. Laurence King, [ISBN: 9781856694803].</p> <p>Edward Allen, Patrick Rand. (2016), Architectural Detailing: Function, Constructability, Aesthetics, 3rd. Wiley, [ISBN: 9781118881996].</p>
<i>This module does not have any article/paper resources</i>
Other Resources
<p>Website, Brick Development Association. Brick Construction, London, Brick Development Association, <a href="http://www.brick.org.uk">http://www.brick.org.uk</a></p> <p>Website, Irish Concrete Federation. Concrete Construction, Dublin, Irish Concrete Federation, <a href="http://www.irishconcrete.ie">http://www.irishconcrete.ie</a></p> <p>Website, Department of Housing Planning &amp; Local Government. Technical Guidance Documents, Dublin, Ireland, Department of Housing Planning &amp; Local Government, <a href="https://www.housing.gov.ie/housing/building-standards/tgd-part-d-materials-and-workmanship/Technical-guidance-documents">https://www.housing.gov.ie/housing/building-standards/tgd-part-d-materials-and-workmanship/Technical-guidance-documents</a></p>

## Module Delivered in

Programme Code	Programme	Semester	Delivery
CR_CARCT_8	<a href="#">Bachelor of Science (Honours) in Architectural Technology</a>	-1	Mandatory
CR_TARCH_7	<a href="#">Bachelor of Science in Architectural Technology</a>	-1	Mandatory