

Title:	Passive House Design 2	APPROVED
Long Title:	Passive House Design 2	
Module Code:	ARCH8026	
Credits:	5	
NFQ Level:	Advanced	
Field of Study:	Architecture & Urban Environment	
Valid From:	Semester 1 - 2015/16 ( September 2015 )	
Module Delivered in	<a href="#">2 programme(s)</a>	
Module Coordinator:	KATHERINE KEANE	
Module Author:	MARC O RIAIN O RIAIN	
Module Description:	The application of Passive House Design Theory and Principles utilising current passive house planning software and techniques.	
Learning Outcomes		
On successful completion of this module the learner will be able to:		
LO1	Effectively manipulate the Passive house planning package	
LO2	Apply theory in heat gain and climate on building performance	
LO3	Apply the principles of mechanical ventilation heat recovery and air tightness on building performance	
LO4	Apply the impact of infiltration and air change within low energy building design	
LO5	Use current Passive House planning software effectively.	
Pre-requisite learning		
<b>Module Recommendations</b> <i>This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named CIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).</i>		
8968	ARCH8025	Passive House Design 1
<b>Incompatible Modules</b> <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module. You may not earn additional credit for the same learning and therefore you may not enrol in this module if you have successfully completed any modules in the incompatible list.</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. You may not enrol on this module if you have not acquired the learning specified in this section.</i>		
No requirements listed		
<b>Co-requisites</b>		
No Co Requisites listed		

**Module Content & Assessment**

**Indicative Content**

**Passive House Planning**

The application of Passive House Design Theory and Principles utilising current passive house planning software and techniques.

**Current Passive House Planning Package Software Application**

Tutorials and instruction on the Current Passive House Planning Package Worksheets (PHPP v8.5) including: Verification; Areas; U Value; Windows; Shading; Window Type; Ventilation; Annual Heat Demand; Monthly Method; Summer; Heating Load; Shading S; Summer Ventilation; Cooling; Cooling load; DHW & Distribution; Solar DHW; Electricity non Domestic; Aux Electricity; PE value; Compact Unit; Boiler; District Heating; Climate Data; IHg; IHG non Domestic; Use non Domestic; Final Protocol Worksheet Ventilation

**Assessment Breakdown**

	%
Course Work	100.00%

**Course Work**

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Software application assignment including generation of a bespoke summary sheet to graphically represent the results in a given project	1,2,3,4,5	100.0	Every Second Week

No End of Module Formal Examination

**Reassessment Requirement**

**Coursework Only**

*This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination.*

**The institute reserves the right to alter the nature and timings of assessment**

**Module Workload**

**Workload: Full Time**

<i>Workload Type</i>	<i>Workload Description</i>	<i>Hours</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Tutorial	Software instruction	3.0	Every Week	3.00
Independent & Directed Learning (Non-contact)	Assignment completion: software application	4.0	Every Week	4.00
Total Hours				7.00
Total Weekly Learner Workload				7.00
Total Weekly Contact Hours				3.00

**Workload: Part Time**

<i>Workload Type</i>	<i>Workload Description</i>	<i>Hours</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Tutorial	Software Instruction	3.0	Every Week	3.00
Independent & Directed Learning (Non-contact)	Assignment completion and software application	4.0	Every Week	4.00
Total Hours				7.00
Total Weekly Learner Workload				7.00
Total Weekly Contact Hours				3.00

Module Resources
<i>Recommended Book Resources</i>
<ul style="list-style-type: none"> <li>• Irish Passive House Academy 2012, <i>Certified Passive House Designer</i>, 1</li> <li>• Sarah Lewis 2014, <i>PHPP Illustrated: A Designer's Companion to the Passive House Planning Package</i>, RIBA Publishing London [ISBN: ISBN:978-1859]</li> <li>• Janet Cotterell and Adam Dadeby 2012, <i>The Passivhaus Handbook: A practical guide to constructing and retrofitting buildings for ultra-low energy performance (Sustainable Building)</i>, Green Books [ISBN: ISBN:978-0857]</li> <li>• Rainer Vallentin (Editor), Roberto Gonzalo (Editor), 2014, <i>Passive House Design: A Compendium for Architects (Detail Green Books)</i>, Edition Detail [ISBN: 978-395553220]</li> </ul>
<i>This module does not have any article/paper resources</i>
<i>Other Resources</i>
<ul style="list-style-type: none"> <li>• <b>WEB PORTAL:</b> Passive House Association of Ireland <b>PASSIPEDIA WEB PORTAL</b> (Licence/membership)</li> </ul>

Module Delivered in			
Programme Code	Programme	Semester	Delivery
CR_CARCT_9	<a href="#"><u>Master of Science in Architectural Technical Design</u></a>	2	Elective
CR_DINAR_9	<a href="#"><u>Master of Science in Interior Architecture</u></a>	2	Elective