



Institiúid Teicneolaíochta Chorcaí  
Cork Institute of Technology

APPROVED

<b>Awards</b>			
MEng			
<b>Programme Code:</b>	CR_CENEN_9	<b>Mode of Delivery:</b>	Full Time, Part Time, ACCS
		<b>No. of Semesters:</b>	3
<b>NFQ Level:</b>	9		
<b>Embedded Award:</b>	No		
<b>programmeReviewDate:</b>			
<b>Department:</b>	CIVIL, STRUCTURAL & ENVIRONMENTAL ENGINEERING		

## Programme Outcomes

Upon successful completion of this programme the graduate will be able to demonstrate... :

<b>P01</b>	Knowledge - Breadth	
	(a)	a wide and systematic knowledge of scientific principles and the design process in Environmental and Energy Engineering; an understanding of the key parameters and the technical, economic, environmental and social issues pertaining to these disciplines
<b>P02</b>	Knowledge - Kind	
	(a)	a critical awareness of current issues in Environmental and Energy Engineering, a knowledge of the latest mathematical, scientific, and ICT and modelling techniques and their limitations in their practical application to ill defined complex problems of Environmental and Energy Engineering
<b>P03</b>	Skill - Range	
	(a)	mastery of a range of specialist research and design tools and methods of investigation and analysis in the field of Environmental and Energy Engineering; the ability to use engineering principles to design and develop new solutions to complex Environmental and Energy Engineering problems
<b>P04</b>	Skill - Selectivity	
	(a)	the ability to select appropriate advanced skills and use new methods required for novel situations and the ability to develop, to a high level, new skills in emerging technologies as required in Environmental and Energy Engineering design and analysis; the ability to undertake analysis of a design and justify decisions throughout a particular design process
<b>P05</b>	Competence - Context	
	(a)	the ability to act at a variety of professional levels, particularly in the initiation, development and promotion of design solutions in Environmental and Energy Engineering; the ability to identify and critically appraise potential projects and opportunities, conduct appropriate research and undertake the design and development of solutions to ill-defined and complex engineering problems
<b>P06</b>	Competence - Role	
	(a)	the technical competence necessary to take significant responsibility for the work of individuals and groups, lead and initiate activity in Environmental and Energy Engineering practice
<b>P07</b>	Competence - Learning to Learn	
	(a)	the ability to evaluate their own learning, identify knowledge gaps, and take responsibility for the pursuit of academic professional development pathways
<b>P08</b>	Competence - Insight	
	(a)	an awareness of the impacts of Environmental and Energy Engineering infrastructure on society and the ability to critically evaluate the technical, economic, environmental and social implications of appropriate Engineering solutions.

## Semester Schedules

### Stage 1 / Semester 1

Mandatory	
Module Code	Module Title
INTR9005	<a href="#">Sustainability in Engineering</a>
ELEC9001	<a href="#">Energy Source Analysis</a>
CIVL9008	<a href="#">Advanced Hydro &amp; Flood Control</a>
INTR9006	<a href="#">Engineering Research Skills</a>
MECH8015	<a href="#">Ocean Energy Conversion</a>
Elective	
Module Code	Module Title
CIVL9001	<a href="#">Adv Geotechnical Engineering</a>
MECH9001	<a href="#">Computational Solid Modelling</a>
BULD9002	<a href="#">Contract Admin/Dispute Resolve</a>
MGMT8017	<a href="#">Strategic Business Management</a>

### Stage 1 / Semester 2

Mandatory	
Module Code	Module Title
CIVL9009	<a href="#">Env and Energy Eng Infrastr</a>
CIVL9006	<a href="#">Biofuel and Biomass Technology</a>
INTR9003	<a href="#">Project Development</a>
CIVL9010	<a href="#">Adv Wastewater Eng. Design</a>
CIVL9011	<a href="#">Advanced Water Engineering</a>
Elective	
Module Code	Module Title
INTR9017	<a href="#">Infrastructure Asset Mgmt</a>
INTR9007	<a href="#">Eng. Project Management</a>
CHEP8008	<a href="#">Environmental Management</a>
MGMT9003	<a href="#">Managing Innovation</a>
MGMT9024	<a href="#">Leadership &amp; Change Management</a>
MECH9002	<a href="#">Computational Fluid Dynamics</a>

Stage 2 / Semester 1

Mandatory	
Module Code	Module Title
INTR9004	<a href="#">Project Realisation</a>