



Institiúid Teicneolaíochta Chorcaí  
Cork Institute of Technology

<b>Awards</b>					
BEng					
<b>Programme Code:</b>	CR_EMECH_7	<b>Mode of Delivery:</b>	Full Time	<b>No. of Semesters:</b>	6
<b>NFQ Level:</b>	7				
<b>Embedded Award:</b>	No	<b>Programme Credits:</b>	180		
<b>programmeReviewDate:</b>	September 2025				
<b>Department:</b>	MECHANICAL, BIOMEDICAL & MANUFACTURING ENGINEERING				
<b>Field of Study:</b>	Mechanical Engineering				

## Programme Outcomes

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

<b>PO1</b>	Knowledge - Breadth
	(a) The ability to apply knowledge in the areas of mathematics, science, ICT, design and engineering practice relevant to the mechanical engineer.
<b>PO2</b>	Knowledge - Kind
	(a) the ability to identify and solve problems of mathematics, science, design and engineering technology to the solution of well-defined mechanical engineering technology problems and will demonstrate the ability to effectively communicate ideas, designs and calculations through a combination of oral, written and presentation skills.
<b>PO3</b>	Skill - Range
	(a) ability to use basic techniques, skills and modern computer-based engineering tools necessary to solve engineering technology problems in mechanical engineering.
<b>PO4</b>	Skill - Selectivity
	(a) ability to apply, manipulate and develop the design of a system, component or process to meet specified needs and to contribute to the assessment of the technical performance of a mechanical system.
<b>PO5</b>	Competence - Context
	(a) to select, design manufacture or diagnose a solution to common engineering technology problems in mechanical engineering.
<b>PO6</b>	Competence - Role
	(a) awareness, responsibility and good judgement in achieving personal and/or team goals in well-defined work settings.
<b>PO7</b>	Competence - Learning to Learn
	(a) initiative and identify areas of professional development to enhance his/hers competence/skills.
<b>PO8</b>	Competence - Insight
	(a) a view of the wider social, political, business and economic context within which mechanical engineering operates and the need for high ethical standards in the practice of engineering, including the responsibilities of the engineering profession towards people and the environment

## Semester Schedules

### Stage 1 / Semester 1

Mandatory	
Module Code	Module Title
MECH6029	<a href="#">Mechanics</a>
CMOD6001	<a href="#">Creativity Innovation&amp;Teamwork</a>
MECH6014	<a href="#">Mechanical Workshop Practice</a>
MECH6008	<a href="#">Introductory CAD</a>
MECH6011	<a href="#">Materials &amp; Processes</a>
MATH6014	<a href="#">Technological Mathematics 1</a>

### Stage 1 / Semester 2

Mandatory	
Module Code	Module Title
MECH6040	<a href="#">Intro 3-D Parametric Modelling</a>
MATH6015	<a href="#">Technological Mathematics 2</a>
MECH6007	<a href="#">Thermofluids</a>
MECH6017	<a href="#">Pneumatics</a>
MECH6019	<a href="#">Welding Technology</a>

  

Elective	
Module Code	Module Title
FREE6001	<a href="#">Free Choice Module</a>
COMP6014	<a href="#">ICT for Eng Techs</a>
AUTO6026	<a href="#">Intro to Auto Engines</a>
PHYS6025	<a href="#">Introduction - Process Control</a>
ELEC6031	<a href="#">Electrical Principles 1</a>

Stage 2 / Semester 1

Mandatory	
Module Code	Module Title
MECH6031	<a href="#">Mechanics of Materials 2</a>
MANU6012	<a href="#">Metrology &amp; Quality Control</a>
MECH6032	<a href="#">Electro-Pneu. &amp; M/C maint.</a>
MECH6022	<a href="#">Mechanical CAD and Design</a>
MATH6040	<a href="#">Technological Mathematics 201</a>
Elective	
Module Code	Module Title
AUTO6027	<a href="#">Intro to Auto Chassis Systems</a>
FREE6001	<a href="#">Free Choice Module</a>
ELEC6032	<a href="#">Electrical Principles 2</a>

Stage 2 / Semester 2

Mandatory	
Module Code	Module Title
MECH6025	<a href="#">Material Science</a>
MECH6030	<a href="#">Mechanics of Machines</a>
MECH6021	<a href="#">3-D Mech Analysis &amp; Design</a>
MECH6033	<a href="#">Thermofluids 2</a>
MECH6028	<a href="#">Mechanical Workshop Practice 2</a>
STAT6010	<a href="#">Intro. to Probability &amp; Stats</a>

Stage 3 / Semester 1

Mandatory	
Module Code	Module Title
MECH7016	<a href="#">Project Research &amp; Design</a>
MECH7014	<a href="#">Mechatronics 3 - PLC Control</a>
MECH7010	<a href="#">CAE &amp; Mechanical Design</a>
MATH7020	<a href="#">Technological Mathematics 301</a>
MECH7009	<a href="#">Materials/Structures Mechanics</a>
Elective	
Module Code	Module Title
FREE6001	<a href="#">Free Choice Module</a>
INTR7011	<a href="#">Biomedical Electronic Systems</a>
ELEC7007	<a href="#">Electrotechnology</a>
INTR6018	<a href="#">Microcontroller Applications</a>

Stage 3 / Semester 2

Mandatory	
Module Code	Module Title
MECH7015	<a href="#">Project Realisation</a>
MANU7003	<a href="#">Engineering Management</a>
MECH7007	<a href="#">Manufacturing Technology</a>
INTR7009	<a href="#">Thermofluids 3</a>
MECH7030	<a href="#">SCADA &amp; Robotics</a>