APPROVED

Institiúid Teicneolaíochta Chorcaí
Cork Institute of Technology

Awards
Higher Certificate in Eng

Programme Code:	CR_EMECH_6	**Mode of Delivery:**	Full Time, Part Time, ACCS	**No. of Semesters:**	4
NFQ Level:	6				
Embedded Award:	No	**Programme Credits:**	120		
programmeReviewDate:	February 2019				
Department:	MECHANICAL, BIOMEDICAL & MANUFACTURING ENGINEERING				

Programme Outcomes

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

PO1	Knowledge - Breadth	
	(a)	the ability to apply knowledge in the areas of mathematics, science, ICT, design and engineering practice relevant to the mechanical engineering technician.
PO2	Knowledge - Kind	
	(a)	the ability to apply knowledge of mathematics, science, ICT, design and engineering practice to the solution of well-defined mechanical engineering technology problems.
PO3	Skill - Range	
	(a)	the ability to use basic techniques, skills and modern computer-based engineering tools necessary to solve engineering technology problems in mechanical engineering
PO4	Skill - Selectivity	
	(a)	the ability to assist in 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.
PO5	Competence - Context	
	(a)	the ability to recognise and contribute to the solution of common engineering technology problems in mechanical engineering.
PO6	Competence - Role	
	(a)	the ability to work autonomously and as a member of a multidisciplinary team.
PO7	Competence - Learning to Learn	
	(a)	the ability to identify and address his/her learning needs within a structured learning environment and an awareness of the need for continued professional development.
PO8	Competence - Insight	
	(a)	an understanding 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	Mechanics
MECH6014	Mechanical Workshop Practice
MECH6008	Introductory CAD
MECH6011	Materials & Processes
MATH6014	Technological Mathematics 1
CMOD6001	Creativity Innovation&Teamwork

Stage 1 / Semester 2

Mandatory	
Module Code	**Module Title**
MECH6040	Intro 3-D Parametric Modelling
MATH6015	Technological Mathematics 2
MECH6007	Thermofluids
MECH6017	Pneumatics
MECH6019	Welding Technology
AUTO6026	Intro to Auto Engines

Elective	
Module Code	**Module Title**
PHYS6025	Introduction - Process Control
COMP6014	ICT for Eng Techs
FREE6001	Free Choice Module

Stage 2 / Semester 1

Mandatory	
Module Code	**Module Title**
MECH6031	Mechanics of Materials 2
MANU6012	Metrology & Quality Control
MECH6032	Electro-Pneu. & M/C maint.
MECH6022	Mechanical CAD and Design
MATH6015	Technological Mathematics 2

Elective	
Module Code	**Module Title**
AUTO6027	Intro to Auto Chassis Systems
ELEC6031	Electrical Principles 1
FREE6001	Free Choice Module

Stage 2 / Semester 2

Mandatory	
Module Code	**Module Title**
MECH6025	Material Science
MECH6030	Mechanics of Machines
MECH6021	3-D Mech Analysis & Design
MECH6033	Thermofluids 2
MECH6028	Mechanical Workshop Practice 2
MATH6040	Technological Mathematics 201