

Programme Name	Certificate IV In Manufacturing Engineering
<p><b>Programme Description</b></p>	<p>Manufacturing Technology Engineering is one of the most fundamental disciplines in the developing economy. Its practitioners are in demand over a wide field of businesses and organization's providing infrastructure. Indeed, any installed process machines, plants require operational and maintenance experts to manage its day-to-day running and execute repairs in a timely and efficient manner. Industries as diverse as textile manufacturers to food and pharmaceutical producers to energy suppliers and to the hospitality industry all require suitably qualified personnel in this field of engineer.</p> <p>The program is offered provides a recognizable qualification and a sound base for mechanical engineering students intending to specialize trade practices in Plant Maintenance and Manufacturing Engineering. The training develops student skills and knowledge of the processes involved. The course aims to develop the skills in operation of machines, maintenance aspect of Manufacturing Technologies, and Quality Controls.</p> <p>In this course, you can study either full-time 2 years, or part-time until completion, mainly day classes. Night classes maybe scheduled, particularly for part-time students. You will learn Engineering skills &amp; concepts both technical and practical in classroom delivered units in Samabula CEST Campuses (Hands tools, Lathe machines grinding machines, pressing machines, Program logic Controls, Electrical, pumps, power transmission devices, hydraulic and pneumatic plant, lifting material Handling, Diesel and Petrol engines, Boiler operations etc., at the engine rooms boiler rooms and workshops).</p> <p>You will be introduced to various types of bearings, bearing number codes and suffixes, bearing hot and cold installations and alignment on shafts. Bearing clearances, types of fits and coupling alignment.</p> <p>You will be introduced to Engineering mathematics, Applied science and scientific principles, materials and study simple Electrical, Hydraulic &amp; Pneumatic Circuits. Students will learn to apply 2D &amp; 3D Computer-aided drafting (CAD) techniques, Solid works, You will gain the skills to work in the mechanical and/or manufacturing industries as an operator, trades men, technical officer or engineering assistant within small, medium and large enterprises.</p>
<p><b>Majors</b></p>	<p><b>Manufacturing Machines</b></p>
<p><b>Minimum Requirements</b></p>	<p>A pass in Year 12 with 200 out of 400 marks with 50% or more marks in English <b>or</b> completion of Certificate III Programme <b>or</b> equivalent/ appropriate experience for mature applicants.</p>
<p><b>Duration</b></p>	<p>2 Years</p>
<p><b>Programme Type</b></p>	<p>Certificate</p>
<p><b>College Name</b></p>	<p>COLLEGE OF ENGINEERING, SCIENCE &amp; TECHNOLOGY</p>
<p><b>Campus</b></p>	<p>Samabula</p>
<p><b>Credit Points</b></p>	<p>120</p>

## Programme Structure

Course Code	Course Title	Prerequisite	Credit Points
	<b>Quarter 1</b>		
COM303	Introduction to Communication Literacy	Current MER	5
PMM433	Manufacturing Processes (E)	Current MER	5
PME311	Basic Machining	Current MER	5
PME312	Basic Craft and Metal work	Current MER	5
MEA304	Workshop calculation (E)	Current MER	5
MEA303	Trade Drawing A	Current MER	5
	<b>Quarter 2</b>		
ETH301	Ethic, Values & Governance.	Current MER	5
PME315	Lifting & Material Handling	Current MER	5
MEA302	Welding Process and Practice	Current MER	5
OHS301	Occupational Health and Safety	Current MER	5
PME301	Electro Plant	Current MER	5
MEA305	Workshop Science (E)	Current MER	5
	<b>Quarter 3</b>		
PMM431	Lean Engineering Techniques	MEA305	5
MEA418	Computer Aided Design (CAD)	MEA303	5
PME445	Industrial Instrumentation	Current MER	5
PME442	Hydraulics and Pneumatics I (E)	MEA305	5
PME421	Bearing, Lubrication, Filters, and Seals (E)	Current MER	5
PMM432	Maintenance Management	Current MER	5
	<b>Quarter 4</b>		
PMM454	Introduction to solid works (E)	MEA418	5
PME441	Power Transmission (E)	MEA305	5
PMM451	Condition Monitoring	Current MER	5
PMM452	Electro Hydraulics & Pneumatics (E)	PME442	5
PME455	Introduction to Supervisory Control and Data Acquisition	PME445	5
PME456	Programmable Logic Controller (PLC)	PME445	5
	<b>Total Credit Points:</b>		<b>120</b>