

MEC - MECHANICAL TECHNOLOGY (AWARD)

MEC 100 Perform basic machining (1-3-4)

The aim of this unit is to develop students' knowledge and skills in a mechanical machine shop. Students will experience the mechanical processes of turning, milling, drilling, grinding and precision measurement.

MEC 101 Perform basic mechanical maintenance (2-2-4)

This unit provides the learner with the skills and knowledge to conduct routine maintenance for mechanical machines. Upon completion the course the learner will be able to recognize and undertake preventive maintenance and corrective maintenance for simple mechanical machines.

MEC 105 Explore Health, Safety and Environment at Workplace (2-0-2)

This unit aims to provide the learners with the necessary fundamentals and basic understanding of Occupational Health and Safety (OHS) at the workplace. Health and Safety Management System (H&S MS) based on ISO 45001 – 2018, identifying and controlling workplace hazards and completing a suitable risk assessment on the equipment, environment, and methods related to the engineering sector.

MEC 110 Interpret and Prepare Technical Drawings (1-2-3)

Provides the learner with skills and knowledge to interpret technical drawings and to prepare basic engineering drawings that conform to recognised industry standards.

MEC 111 Select instruments and sensors for measurement (1-2-3)

The aim of this unit is to develop students' knowledge of instrumentation, measurement and control in the process industry. A student who completes this course will have a basic understanding of process variables and of appropriate instruments and measuring techniques.

MEC 130 On Job Training 1 (0-250-0)

On job training for the students of Level 4 Award.

MEC 131 On Job Training 2 (0-250-0)

On job training for the students of Level 4 Award.

MEC 210 Prepare CAD environment, create 2D-3D drawings and understand manufacturing automation (1-3-4)

To provide learners with the knowledge and skills to do computer-aided design and computer-aided manufacturing.

MEC 211 Explore knowledge and skills of pumps and compressors (1-1-2)

The aim of this unit is to provide learners with the knowledge and skills to develop their practical skills by learning while doing and provide hands-on training for single stage air compressor "reciprocating or positive displacement compressor" and pumps. In addition to this, to develop learner's skills such as observation, operation, measurement, testing, evaluating the piston air compressor performance, recording data, data analysis and controlling industrial compressors and pumps.

MEC 212 Explore the basics of pneumatic and hydraulic Systems (2-2-4)

This unit (NQC Code: ENG05063NU21) provides learners with the knowledge and skills to operate basic pneumatic and hydraulic systems, troubleshoot, and apply them effectively. The course combines Competency-Based Learning (CBL) and apprenticeship methods to deliver both theoretical and practical training. On-campus sessions focus on the theoretical aspects of pneumatics and hydraulics, while off-campus industry apprenticeships offer students hands-on experience in real-world applications of these systems.

MEC 213 Operate and Maintain Computer Numerical Control (CNC) machines (0-2-2)

The "Operate and Maintain CNC Machines" course is designed to provide students with the knowledge and practical skills required to operate and maintain Computer Numerical Control (CNC) machines effectively. CNC machines play a crucial role in modern manufacturing, and this course aims to equip individuals with the expertise needed to work with these precision machines safely and efficiently.

MEC 214 Explore 3D printing technologies in engineering (0-2-2)

This course aims to provide learners with the knowledge and skills to be able to create, edit and recognize types of 3D printing process and its software. At the end of this unit, learners will be able to: -Create & edit 3D models with respect to the requirements of 3D printer & material. -Explore types of 3D printing processes & their applications & advantages -Analyze the hardware parts & troubleshoot problems of 3D printers & materials -Create and edit files using 3D printing software & generate g-codes to printable format