



**ADVANCED DIPLOMA OF
MECHANICAL ENGINEERING TECHNOLOGY**

MODULE DETAILS

Module 7: Pneumatics

Nominal duration: 2 weeks (24 hours total time commitment)

This time commitment includes the preparation reading, attendance at each webinar (1 hour plus 15-30 minutes for discussion), and the time necessary to complete the assignments and further study.

MODULE PURPOSE

This module will increase the students' knowledge of the fundamentals, improve their maintenance programs, and become excellent troubleshooters of problems in this area. Developing an understanding of 'how' components work leads to an understanding of how and why they fail. Participants will have an opportunity to discuss pneumatic systems construction, design, applications, operations, maintenance and management issues. They will also be provided with the most up-to-date information and best practice in dealing with the subject. Towards the end of the module, they will have developed the skills and ability to recognize and solve simple pneumatic problems in a structured and confident manner

**PRE-REQUISITE
MODULES/UNIT(S)**

NONE

ASSESSMENT STRATEGY

To evaluate the achievement of the learning outcomes; written assignments, group projects and practical exercises are set.

**SUMMARY OF LEARNING
OUTCOMES**

1. Examine and discuss the basics of air preparation
2. Identify pneumatic elements and symbols
3. Design and troubleshoot pneumatic systems

Learning Outcome 1

Examine and discuss the basics of air preparation

Assessment criteria

- 1.1 Discuss the characteristics of air
- 1.2 Examine the methods used for air generation and distribution
- 1.3 Discuss the characteristics of pneumatic systems

Learning Outcome 2

Identify pneumatic elements and symbols

Assessment criteria

- 2.1 Identify and apply the symbols for pneumatics
- 2.2 Describe the components of pneumatic systems



**ADVANCED DIPLOMA OF
MECHANICAL ENGINEERING TECHNOLOGY**

Learning Outcome 3

Design and troubleshoot pneumatic systems

Assessment criteria

- 3.1 Design a simple pneumatic system
- 3.2 Perform a flow chart analysis of a pneumatic circuit
- 3.3 Outline the maintenance process for pneumatic systems

Delivery Mode

A combination of asynchronous and synchronous e-learning delivery comprising a judicious mix of interactive online web conferencing, simulation (virtual labs) software, remote online labs, online videos, PowerPoint slides, notes, reading and study materials (in PDF, HTML and Word format) accessed through the Moodle Learning Management System (LMS).