In Progress
Please note that this Unit Profile is still in progress. The content below is subject to change.

ENTM12006 *Industrial Fluid Power*
Term 1 - 2027

Profile information current as at 12/11/2026 11:00 am

All details in this unit profile for ENTM12006 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student).The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

This unit will teach students about designing fluid power systems for automated and semi-automated industrial plants. You will be exploring fluid power elements and their ISO standard symbols, designing fluid power circuits using hydraulic and pneumatic actuators, power sources, directional control and other control valves, sensors and control systems. Control technology may include both hydraulic and pneumatic systems integrated with programmable controllers (PLCs and micro-controllers). During the mandatory residential school you will attain, in a team, hands-on skills in automation circuit design experiencing several laboratory experiments in areas of hydraulic and pneumatic operating system design and control circuit design integrated with PLCs for automated machines. Simulation systems like SimScape and FluidSim may be applied for confirming the functionality of your designed projects. You will communicate professionally using discipline-specific terminology to present designs and problem solutions accomplishing a Student Portfolio. Relevant problem solving, technical reports on projects and laboratory experiments are the formative assessment items during the Term. Online students are required to have access to a computer and internet to make frequent use of the Unit Moodle.

Details

Career Level: *Undergraduate*
Unit Level: *Level 2*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Prereq: ENAG11002 Energy & Electricity or ENEG11009 Fundamentals of Energy & Electricity or PHYS11185 Engineering Physics B
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 1 - 2027

- Mixed Mode

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Information for Class and Assessment Overview has not been released yet.
This information will be available on Monday 11 January 2027

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Academic Progression Policy and Procedure
- Student Refund and Credit Balance Policy and Procedure
- Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from SUTE

Feedback
Carry out experiments in-person instead of lab via Zoom.

Recommendation
Opportunity to organise on-campus residential school should be considered.

Feedback from SUTE

Feedback
Reorganise lab instruction sheets for easy andquick comprehension.

Recommendation
It is recommended that the UC should revisit the Lab instruction sheets, rewrite and reorganise them for the unit.

Feedback from SUTE

Feedback
Six lab reports at a time is too much.

Recommendation
It is recommended to start lab experiments earlier in the term to avoid report submissionat the end of the term.

Feedback from Evaluation Report

Feedback
The contents of the unit are aligned to modernday industry practices.

Recommendation
It is recommended that the unit content bekept as it is and that more modern examples and experiences from the industry should be adopted.

Unit Learning Outcomes

Information for Unit Learning Outcomes has not been released yet.
This information will be available on Monday 11 January 2027

Alignment of Learning Outcomes, Assessment and Graduate Attributes

Information for Alignment of Learning Outcomes, Assessment and Graduate Attributes has not been released yet.
This information will be available on Monday 11 January 2027

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.
This information will be available on Monday 11 January 2027

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.
This unit profile has not yet been finalised.