## In Progress

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



Profile information current as at 05/12/2025 02:02 pm

All details in this unit profile for ENEX12002 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 introduce you to the fundamentals of analog and digital electronics. You will learn basic fundamental laws of circuit analysis, and the working principles of commonly used active and passive electronic components such as resistor, capacitor, inductor, diode, transistor, operational amplifier, and their applications. This unit will provide you with sufficient knowledge of Boolean algebra necessary to understand digital electronics. You will learn logic gates, combinational logic circuit, logic minimisation, flip-flops, counter, and other basic digital logic circuits, and their applications. You will develop skills in analysing electronic circuits and modelling analog and digital circuits using industry-standard simulation software. You will design analog and digital systems for real-world applications and verify their functionality in simulations. You must also complete compulsory practical activities that involve building electronic circuits to strengthen your knowledge further. This unit promotes the UN sustainable development Goal 12 - Responsible Consumption and Production by developing electronic circuits to reduce wasteful consumption.

## **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

Pre-requisite: ENEG11009 Fundamentals of Sustainable Energy AND (MATH11160 Technology Mathematics OR MATH11218 Applied Mathematics)

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 <u>Assessment Policy and Procedure (Higher Education Coursework)</u>.

# Offerings For Term 1 - 2026

- Bundaberg
- Cairns
- Gladstone
- Mackay
- Mixed Mode
- Rockhampton

# 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 12 January 2026

# **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
- Monitoring Academic Progress (MAP) Policy and Procedure Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback Compliments and 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 UC's observation

#### **Feedback**

In-class learning checks and assessment reminders improved submission timeliness and reduced the number of extension requests.

#### Recommendation

This practice should continue.

#### Feedback from SUTE

#### Feedback

There is an opportunity to provide more descriptive feedback on written assessments.

#### Recommendation

Feedback on written assessments should guide students on how to improve and learn from their mistakes.

#### Feedback from SUTE

#### Feedback

Some students would benefit from clearer links between unit materials and the skills required of electrical engineers.

### Recommendation

Connections between unit materials and the essential knowledge and skills of electrical engineers should be explicitly highlighted in class whenever relevant.

# **Unit Learning Outcomes**

Information for Unit Learning Outcomes has not been released yet.

This information will be available on Monday 12 January 2026

# 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 12 January 2026

## Textbooks and Resources

Information for Textbooks and Resources has not been released yet.

This information will be available on Monday 16 February 2026

# **Academic Integrity Statement**

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.