ENEX14001 *Mechatronics Systems Design*
Term 1 - 2025

Profile information current as at 21/11/2024 11:48 pm

General Information

Overview

This unit will introduce you to supervisory control and data acquisition (SCADA) system design and development using industry standard SCADA software. You will also learn how to analyse system requirements for a given mechatronics system task, evaluate and select mechatronics modules and components from a pool of mechatronics modules and components. You will design custom components and fabricate them, develop concept designs and select the best option, design and develop a mechatronics solution for a given complex task. You will also program the developed mechatronics system using industry standard control systems and SCADA software, and commission the system. In this unit, you must complete compulsory practical activities. Refer to the Engineering Undergraduate Course Moodle site for proposed dates.

Details

Career Level: *Undergraduate*
Unit Level: *Level 4*
Credit Points: *12*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.25*

Pre-requisites or Co-requisites

Prerequisites: ENEX13001 Instrumentation and Industrial Automation AND ENEX13003 Design of Mechatronics Elements 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 - 2025

- Mackay
- 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

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 Verbal feedback at Residential School

Feedback
The five-day Residential School length helped to complete the project.

Recommendation
The Residential School should be scheduled for the same length.

Feedback from Verbal feedback at Residential School

Feedback
The Video Tutorials on each single LabView task is very helpful.

Recommendation
The video tutorials should be made available and additional video tutorials should be made upon specific requests during the term.

Unit Learning Outcomes

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 13 January 2025

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.
This information will be available on Monday 17 February 2025

Academic Integrity Statement

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