

In Progress

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



ENEC13017 *Advanced Structural Analysis*

Term 2 - 2026

Profile information current as at 14/12/2025 08:14 pm

All details in this unit profile for ENEC13017 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

In this unit, you will learn the idealisation and loading of complex structural systems. You will also learn how to calculate deflections in truss, beam, and frame structures using various analytical methods such as the virtual load method. You will be able to analyse indeterminate structures using fundamental techniques/methods e.g., force method, and slope-deflection method. You will be introduced to the fundamentals of structural analysis using the direct stiffness method and you will use industry-relevant software such as SPACE GASS or equivalent to analyse complex structures.

Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Prerequisites: ENEG11006 Engineering Statics and ENEC12012 Stress Analysis

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 2 - 2026

- Bundaberg
- Cairns
- Gladstone
- Mackay
- Online
- 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 18 May 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 Tutorial Sessions

Feedback

Students appreciated the practical projects used in the assessment, as they found them highly relevant to real-world structural analysis problems. These projects enhanced their understanding by applying theoretical concepts to practical scenarios.

Recommendation

Continue incorporating practical projects into the assessment while exploring opportunities to expand industry-related case studies to further strengthen practical learning outcomes.

Feedback from Tutorial Sessions

Feedback

Students requested more exemplar questions with full solutions to support their progressive reports. They found that additional worked examples would help clarify concepts and improve their problem-solving skills.

Recommendation

An expanded set of worked solutions covering key topics relevant to the progressive tests should be developed and provided.

Unit Learning Outcomes

Information for Unit Learning Outcomes has not been released yet.

This information will be available on Monday 18 May 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 18 May 2026

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.

This information will be available on Monday 22 June 2026

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.