

In Progress

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



ENEM12009 *Structural Mechanics*

Term 1 - 2027

Profile information current as at 07/09/2026 08:59 pm

All details in this unit profile for ENEM12009 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 study the behaviour of solid bodies under different loadings by applying basic stress analysis principles and the introductory knowledge of engineering materials. You will gain in-depth understanding of the concepts of continuum stress, strain and deflection; analyse the response of mechanical components to axial, transverse, torsional, bending and buckling loads in the linear elastic regime. You will apply the theory of generalised Hooke's law to design pressure vessels and similar thin walled structures. You will perform calculations concerned with the mechanical properties of materials and conceptually design different mechanical components and structures based on strength, stiffness and stability. You will acquire the skills and knowledge required to develop analytical techniques that are used to solve a wide range of linear stress/strain problems in engineering practice.

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-requisites: (MATH11160 Technology Mathematics or MATH11218 Applied Mathematics) AND (ENEG11006 Engineering Statics or ENEM12007 Statics & Dynamics) AND (ENEG11008 Materials for Engineers or ENEG12005 Material Science and Engineering).

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

- 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 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 Unit coordinator own reflection

Feedback

3D printing models are most useful tools for student learning.

Recommendation

This practice should be continued.

Feedback from SUTE

Feedback

Additional solved problems in unit Moodle site can help students' learning.

Recommendation

More solved materials should be provided.

Feedback from SUTE

Feedback

Lecture materials need a review.

Recommendation

A thorough review should be carried out.

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 15 February 2027

Academic Integrity Statement

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