

EDN3151230B

Engineering Design 3

15 TCE Points



Module 1.1: Rapid prototype and design pitch

Plan, build, user-test and share an innovative prototype in response to a design brief.

Module 1.2: Design journal and prototyping

Design and production of an engineered solution to a specified real-world project brief as provided by the teacher.

Module 2.1: Case study

Learners respond to real world or hypothetical case study or studies relating to the impact of emerging technologies on people and engineering practice. Learners analyse the interrelationships between engineering projects and society.

Module 2.2: Design and solution

Design and production of an engineered solution to a brief addressing an emerging need, as provided by the teacher

Module 3: Learner project folio

Learners are encouraged to select an extended design project topic that links with an area of genuine interest to them. This project may be undertaken as a team utilising individual expertise and drawing upon collaborative partnerships including input from peers, community members and industry professionals. All assessment products are to be submitted individually, and the journal is a formal record enabling authentication of the learner's work. The journal documents the result of collaborative work, reflecting the importance of collaboration to successful engineering projects.

How you'll be assessed:

- **Module 1.1:** A recommended maximum of 9 minutes multimodal presentation.
- **Module 1.2:** Recommendation of 800-1000 words or multimodal equivalent. Includes sketches, drawings and annotated diagrams and images.
- **Module 2.1:** A written response such as a report or essay will be between 1000–1500 words in total or a multimodal presentation of 6–9 minutes.
- **Module 2.2:** An engineering solution of size, complexity and scale to a guided range of 15–25 hours of work for this module.
- **Module 3.1 - Internal:** Proposal 300 – 400 words or multimodal equivalent of 4-6 minute and reflective journal 1000–1500 words or multimodal equivalent of 6-9 minutes.
- **Module 3.2 - External:** Folio maximum of 40 A4 equivalent pages this includes research, evidence of planning, concept sketches with annotations, photographs, charts, diagrams, etc. It will be no larger than 500 megabytes in total size, including a research essay 1500–2000 words in length.
- Requires Strong science and mathematical skills
- Focuses on data analysis and Strong research and writing skills are essential

The external assessment for this subject is an **on-line folio**. The due date for submission is around the end of October (TBA) and is non-negotiable.

COMPLETION OF WORK POLICY

Assessment due dates are provided in the Program of Learning and on Canvas. Work must be submitted by the due date unless an approved extension has been granted. Unapproved late submissions will incur penalties as outlined in the *Completion of Work Policy*. Students needing extensions should contact their subject teacher before the due date with valid reasons, such as illness or unforeseen circumstances.

For more details refer to the Launceston College: [Completion of Work Policy](#).

ACADEMIC INTEGRITY

All senior secondary students in Tasmania are expected to uphold academic integrity, meaning they complete their work honestly and fairly. This includes properly referencing any ideas, images, or information borrowed from others, allowing teachers to distinguish between original and sourced content.

Assignments will be submitted through Canvas, email, hard copy as directed in the task sheet.

For more details, refer to the Launceston College: [Academic Integrity Policy](#).

REFERENCING

The Harvard referencing system is recommended for Engineering Design 3. The standards for criterion 1 state that a student must:

- create appropriate reference lists/bibliographies and use in-text referencing.
- clearly identifies the information, images, ideas and words of others used in the student's work.

COURSE DOCUMENT

The TASC website provides considerable information about the course: [Engineering Design - TASC](#)

OTHER COURSE REQUIREMENTS

Learners enrolled in this course are required to be able to work responsibly and safely in practical situations.

This course requires learners to collaborate with others. This could include peers, teams, community members and industry professionals.

Previously submitted work cannot be used in meeting the requirements of *Engineering Design* Level 3. Therefore, a learner cannot use work including, but not limited to, an independent study, folio, project or assignment that has already been presented for assessment for a previously or concurrently studied TASC accredited or recognised senior secondary course.

Week	Date	Program of Learning 2025	Notes / Assessments
1	6 Feb	Module 1.1: Rapid prototype and design pitch Plan	Yr 11s and 12's return February 8 (Thursday)
2	10 Feb	Build	
3	17 Feb	User-test	
4	24 Feb	Share an innovative prototype in response to a design brief.	Wed 26 Feb – Launceston Cup Module 1.1 assessment Due
5	3 Mar	Module 1.2: Design journal and prototyping of an engineered solution to a specified real-world project brief as provided by the teacher. Design	
6	10 Mar	Production	Mon 10 Mar – Public Holiday
7	17 Mar		
8	24 Mar		
9	31 Mar		Module 1.2 assessment Due
10	7 Apr	Module 2.1: Case study Learners respond to real world or hypothetical case study or studies relating to the impact of emerging technologies on people and engineering practice.	
Term 1 break – Saturday 12 April – Sunday 27 April			
1	28 Apr		Module 2.1 assessment Due
2	5 May	Module 2.2: Design/solution of an engineered solution to a brief addressing an emerging need, as provided by the teacher Design	
3	12 May	Production	
4	19 May		
5	26 May		
6	2 June		Module 2.2 assessment Due
7	9 June	Module 3.1 - Internal: Proposal 300 – 400 words or multimodal equivalent of 4-6 minute.	Mon 9 June – Public Holiday Module 3.1 assessment Due
8	16 June	Reflective journal 1000–1500 words or multimodal equivalent of 6-9 minutes	
9	23 June		Mid-Year Assessments Level 3 & 4
10	30 June	Module 3.2 - External: - Title page - Design brief	Mid-Year Assessments Level 3 & 4
Term 2 break – Saturday 5 July – Sunday 20 July			
1	21 July	Production proposal	
2	28 July	- Identification of potential collaborations: Research analysis - Design development	
3	4 Aug		
4	11 Aug	Design production	
5	18 Aug		
6	25 Aug		
7	1 Sep	Final engineered design – resolved engineered solution (product, service, environment)	
8	8 Sep		
9	15 Sep	Evaluation and recommendations	
10	22 Sep		
Term 3 break – Saturday 27 September – Sunday 12 October			
1	13 Oct	References	
2	20 Oct		Module 3.2 assessment Due
3	27 Oct		Fri 31 Oct - Moderation Day (LC students work from home)
4	3 Nov		Mon 3 Nov – Public Holiday
Exams begin (Monday 10th November) - Exams end (Thursday 20th November)			

ASSESSMENT

Criterion-based assessment helps students see how well they're meeting course outcomes at the end of their study. While there is continuous feedback to guide learning, final assessments focus on showing what students have achieved by the end. Ratings are given as 'A', 'B', or 'C', based on course standards. A 't' indicates partial achievement below a 'C', and a 'z' means no evidence provided.

Schools follow TASC's quality assurance to keep standards consistent. More details are on the [TASC website](#). Final awards are based on both internal and TASC-supervised external assessments.

Criteria

The assessment for *Engineering Design* Level 3 will be based on the degree to which the learner can:

1. apply critical and creative thinking to the design of a solution*
2. produce prototypes to develop engineering design solutions*
3. apply and monitor personal and project management skills
4. use success criteria to review, reflect on and refine the design process*
5. communicate for technical and non-technical audiences*
6. analyse the role of creativity, innovation and enterprise in the professional practice of engineers
7. analyse the impact of emerging technologies on people and engineering practice
8. analyse the interrelationships between engineering projects and society*.

*denotes criteria that are both internally and externally assessed.

Award Requirements

The final award will be determined by the Office of Tasmanian Assessment, Standards and Certification from 13 ratings (8 from the internal assessment, 5 from external assessment).

The minimum requirements for an award in this course are as follows:

EXCEPTIONAL ACHIEVEMENT (EA)

10 'A' ratings, 3 'B' ratings (3 'A' ratings, 2 'B' ratings from external assessment)

HIGH ACHIEVEMENT (HA)

5 'A' ratings, 5 'B' ratings, 3 'C' ratings (1 'A' ratings, 3 'B' ratings, 1 'C' rating from external assessment)

COMMENDABLE ACHIEVEMENT (CA)

6 'B' ratings, 6 'C' ratings (2 'B' ratings, 3 'C' ratings from external assessment)

SATISFACTORY ACHIEVEMENT (SA)

11 'C' ratings (3 'C' ratings from external assessment)

PRELIMINARY ACHIEVEMENT (PA)

6 'C' ratings

A learner who otherwise achieves the ratings for a CA (Commendable Achievement) or SA (Satisfactory Achievement) award but who fails to show any evidence of achievement in one or more criteria ('z' notation) will be issued with a PA (Preliminary Achievement) award.