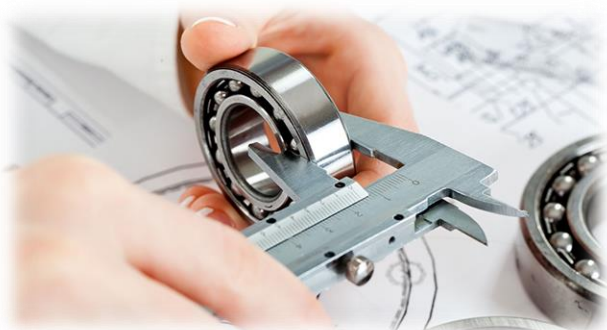


EDN3151230B

Engineering Design 2

15 TCE Points



Module 1.1: Research task – existing, new and emerging technologies

Investigation of the impacts of existing, new and emerging technologies, for example, the development of the mobile phone.

Module 1.2: Engineering design challenge

Learners experience the design process by responding to engineering design challenges. Learners develop an understanding of effective collaboration and contribution to project success. They develop skills in prototyping, product development and project management within specific constraints such as resource, time and relative complexity of the project.

Module 2.1: Roles and responsibilities of engineers

Identify the key characteristics of engineers, describe how these characteristics apply to the engineer's role in a particular engineering context, eg civil, software engineering etc.

Module 2.2: Learner-selected engineering design project

learners are required to keep a journal to document the elements of the engineering design process as they develop their chosen engineering solution

Module 3.1: Negotiated engineering design project

Design and production of an engineered solution to a specified project brief as provided by the course instructor.

Size: recommended 40 hours

How you'll be assessed:

Common types of internal assessments are:

- **Module 1.1:** A recommended maximum - 500 words or 3 minutes of recorded oral communication, or equivalent in multimodal form.
 - **Module 1.2:** Maximum- 750 words or 5 minutes of recorded oral communication, or equivalent in multimodal form.
 - **Module 2.1:** 1 single-sided A3 page (digital/non-digital) of poster or infographic.
 - **Module 2.2:** A project and accompanying design journal of a recommended maximum - 750 words or 5 minutes of recorded oral communication, or equivalent in multimodal form.
 - **Module 3.1:** This is the major task for this module. Folio – design and production in an appropriate format including evidence of design development sketching, annotated photos of production process and documentation of testing processes.
-
- Requires Strong science and mathematical skills
 - Developed skills in data analysis, strong research and written presentations are essential
 - There is no external assessment for this subject.
 - Providers must retain electronic copies of each learner's major folio in a centralised storage system for three (3) years. TASC may require these to monitor the integrity of folios produced in other courses

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

Delivery of this course requires specialised workspace(s) and associated facilities for prototypes to be created and tested safely and effectively. Learners need to be able to access a wide range of reliable sources of information about the uses and applications of engineering within the wider community.

Specialised workspaces may include equipment such as 3D Printers, electronic components and tools, microprocessors, sensors, robotic equipment, CNC routers, laser cutters, vinyl cutters, VR headsets, drones, power and hand tools, construction materials and equipment, computers with appropriate systems requirements and software to enable computer-aided design, operate additive manufacturing equipment and display high-end graphics.

Week	Date	Program of Learning 2025	Notes / Assessments
1	6 Feb	Module 1.1: Research task – existing, new and emerging technologies Investigation of the impacts of existing, new and emerging technologies, for example, the development of the mobile phone.	Yr 11s and 12's return February 8 (Thursday)
2	10 Feb		Module 1.2 assessment Due
3	17 Feb	Module 1.2: Engineering design challenge They develop skills in prototyping, product development and project management within specific constraints such as resource, time and relative complexity of the project.	
4	24 Feb		Wed 26 Feb – Launceston Cup
5	3 Mar		
6	10 Mar		Mon 10 Mar – Public Holiday
7	17 Mar		Module 1.2 assessment Due
8	24 Mar	Module 2.1: Roles and responsibilities of engineers Identify the key characteristics of engineers, describe how these characteristics apply to the engineer's role in a particular engineering context	
9	31 Mar		
10	7 Apr		Module 2.1 assessment Due
Term 1 break – Saturday 12 April – Sunday 27 April			
1	28 Apr	Module 2.2: Learner-selected engineering design project A project and accompanying design journal of a recommended maximum - 750 words or 5 minutes of recorded oral communication, or equivalent in multimodal form.	
2	5 May		
3	12 May		
4	19 May		
5	26 May		
6	2 June		
7	9 June		Mon 9 June – Public Holiday
8	16 June		
9	23 June		Mid-Year Assessments Level 3 & 4
10	30 June		Mid-Year Assessments Level 3 & 4 Module 2.2 assessment Due
Term 2 break – Saturday 5 July – Sunday 20 July			
1	21 July	Module 3.1: Negotiated engineering design project The process that learners have followed must be documented in a production diary. The production diary must be presented as a design folio, including: problem identification and analysis.	
2	28 July		
3	4 Aug	project plan	
4	11 Aug		
5	18 Aug	iterative testing plans	
6	25 Aug		
7	1 Sep		
8	8 Sep	Implementation	
9	15 Sep		
10	22 Sep	Discussion of where the engineering solution could be used in society, the impacts it has, and how those impacts are managed	
Term 3 break – Saturday 27 September – Sunday 12 October			
1	13 Oct		
2	20 Oct		Module 3 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 2 will be based on the degree to which the learner can:

1. apply critical and creative thinking to the design of a solution
2. apply an iterative design cycle to prototype engineering design solutions
3. apply self- and project management skills
4. test, refine and appraise engineered solutions
5. communicate to different audiences using a range of methods
6. investigate the impact of existing, new and emerging technologies on people and engineering practice
7. describe the roles and responsibilities of engineers
8. explain how engineering solutions are utilised and their impact on society

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.