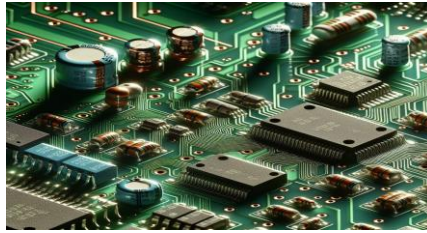


Electronics and Advanced Technologies - EAT215124

15 TCE Points



You will work through the following units as part of Electronics and Advanced Technologies

Module 1: Discovering electronics

Learners will explore the fundamental concepts and principles of electronics with an emphasis on learning by doing.

Module 2: Electronic systems

Learners begin their investigation of advanced technologies in relation to electronics. They will consider the social, economic and environmental impacts of electronic components, systems and devices. electronic systems.

Module 3: Digital electronics

Learners will connect and apply their understanding of electronic components and the foundations of circuit theory with microcontroller programming. This enables learners to explore a range of advanced technologies applications.

Students will develop a major project as part of their Electronics assessment.

How you'll be assessed:

Common types of internal assessments are:

- Practical and experiment writeups
- Written tests
- Calculation tests.
- Circuit troubleshooting.

COMPLETION OF WORK

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 Electronics. The standards 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. [Electronics and Advanced Technologies - TASC](#)

OTHER COURSE REQUIREMENTS

- Toolkit
- Obtainable in the first class if levies have been paid in full
- Scientific calculator
- Grid exercise book.

Week	Date	Program of Learning 2025	Notes / Assessments
1	6 Feb	Module 1 Resistance Voltage Amperage	<i>Yr 11s and 12's return February 8 (Thursday)</i>
2	10 Feb	Ohms Law. Power rule	
3	17 Feb	Components: Cells, Diodes, Resistors, switches, Capacitors, LEDs, LDRs, inductors etc	
4	24 Feb	Tools and equipment. Scope, multimeters Power supply use.	<i>Wed 26 Feb – Launceston Cup</i>
5	3 Mar	KVL KCL Kirchhoff's Laws	
6	10 Mar	Circuit Calculations	<i>Mon 10 Mar – Public Holiday Calculations test</i>
7	17 Mar	Transistors as a switch and Voltage Follower	
8	24 Mar	Bistable Multivibrator circuit	
9	31 Mar	Darlington, Schmidt and Sziklai	
10	7 Apr	Amplifier Class A and B	
Term 1 break – Saturday 12 April – Sunday 27 April			
1	28 Apr	Transformers and Full Bridge Rectifiers	
2	5 May	5V Power supply	
3	12 May	Power supply construction	
4	19 May	Smart Chip introduction	
5	26 May	Module 3 : Coding basics	
6	2 June	Smart chip circuits	<i>Fri 6 June - Moderation Day (LC students work from home)</i>
7	9 June	Smart chip circuits	<i>Mon 9 June – Public Holiday</i>
8	16 June	Smart Chip Circuits	
9	23 June	IOT - internet of things	Mid-Year Assessments Level 3 & 4 <i>Start Thursday 26th June – Thursday 3rd July</i>
10	30 June	Arduino circuits	Mid-Year Assessments Level 3 & 4 <i>Start Thursday 26th June – Thursday 3rd July</i>
Term 2 break – Saturday 5 July – Sunday 20 July			
1	21 July	Major project	
2	28 July	Major project	
3	4 Aug	Major project	
4	11 Aug	Major project	
5	18 Aug	Major project	
6	25 Aug	Major project	
7	1 Sep	Major project	
8	8 Sep	Major project	
9	15 Sep	Function Generator and Opamps	
10	22 Sep	Function Generator and Filters/ Mixers	
Term 3 break – Saturday 27 September – Sunday 12 October			
1	13 Oct	Module 3 Digital Circuits	
2	20 Oct	AND OR NOT & XOR gates, clocks, data transfer	
3	27 Oct	Flip flops - memory	
4	3 Nov	Assessment	<i>Mon 3 Nov – Public Holiday</i>
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 Electronics and Advanced Technologies Level 2 will be based on the degree to which the learner can:

- describe and use processes and tools
- describe and apply scientific and mathematical concepts in electronics
- design, create and appraise electronic solutions to meet an identified need
- communicate information in a variety of modes
- apply self and project management skills
- describe and apply practical knowledge of how electronic components and circuits work
- use and describe input and output devices and controllers
- use microcontrollers to control and investigate electronic circuits.

Award Requirements

The final award will be determined by the Office of TASC from 8 ratings. The minimum requirements for an award in this course are as follows:

EXCEPTIONAL ACHIEVEMENT (EA)

6 'A' ratings, 2 'B' ratings

HIGH ACHIEVEMENT (HA)

3 'A' ratings, 4 'B' ratings, 1 'C' rating

COMMENDABLE ACHIEVEMENT (CA)

4 'B' ratings, 3 'C' ratings

SATISFACTORY ACHIEVEMENT (SA)

6 'C' ratings

PRELIMINARY ACHIEVEMENT (PA)

4 'C' ratings

A learner who otherwise achieves the ratings for an 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.