

Technologies

Information Technology / Computing

Subject	Hours	TCE credit points	EAS LIT	EAS NUM	EAS ICT	Recommended prior studies and/or entry requirements	Locations
Essential Skills - Using Computers and the Internet Level 2	50	5			✓	no entry requirements or previous experience	HH
Engineering Design Level 2	150	15				no entry requirements or previous experience	TH
Engineering Design Level 2 - Robotics and Game Design	150	15				no entry requirements or previous experience	HC
Digital Technologies Level 2	150	15			✓	no entry requirements or previous experience	TH HC
Data Science and Digital Solutions Level 3	150	15			✓	no entry requirements or previous experience	HC TH
Computer Science Level 3	150	15			✓	- an <i>Above Expected Standard</i> or higher in Year 10 Mathematics, especially algebra - SA or better in Mathematics Methods 3	HC
Engineering Design Level 3	150	15			✓	no entry requirements but students undertaking this course should be self-directed learners	TH HC
MEM20422 Certificate II in Engineering Pathways <i>External RTO provider 60142</i>	300	30+				an interest in engineering	HH
AVI30419 Certificate III in Aviation (Remote Pilot) <i>External RTO provider 3127</i>	300	30+				an interest in aviation	TH
ICT20120 Certificate II in Applied Digital Technologies Expression of Interest (EOI)	300	30				- an interest in computers - Subject to Expression of Interest	HC

Essential Skills - Using Computers and the Internet Level 2

What will I learn?

- using Computers and the Internet course is designed for learners who need to develop their everyday adult skills in use of computers and the internet in order achieve their educational and vocational goals

How will I learn and be assessed?

- practical investigation tasks
- regular assignments

Engineering Design 2

What will I learn?

- both individual and collaborative design-focused problem-solving
- insights into the activities of designers, such as engineers, through design methodologies
- how to integrate design principles with Maths, Science, Technology, Computing, and Construction concepts in a project-based learning context to enhance and innovate products, services, and environments.
- skills and understanding of how to address real-world challenges, manage projects, and develop practical solutions

How will I learn and be assessed?

- design challenges
- research tasks related to 3D printing, design, and engineering
- negotiated major design project

Other

- a great foundation for Engineering Design 3 and UCP Entrepreneurship
- perfect introduction to other design and technologies courses that utilise problem-solving and project management concepts, such as Housing & Design, Electronics, and Data Science

Engineering Design 2 - Game Design & Physics Simulations

What will I learn?

- an introduction to engineering principles with a focus on software and understanding the engineering and design process through the context Engineering Design briefs undertaken in simulations, game design and 3D printing
- skills and understanding that provide a foundation for other courses, and a pathway into game design, or engineering

How will I learn and be assessed?

- design challenges
- video games in a range of classic game genres
- research tasks related to iterative design, design briefs, the video game industry, and/or 3D printing
- a student led major folio piece that spans the entirety of Term 3
- provides a foundation for Engineering Design 3
- provides a great introduction to game design and pairs well with Computer Graphics and Design 2
- provides a great introduction to programming if you would like to learn how to code and aren't quite ready for Computer Science

Digital Technologies Level 2

What will I learn?

- design and build digital systems through hands-on STEM projects
- develop programming skills by creating systems, games, apps, and websites
- examine ethical and security challenges in digital technology

How will I learn and be assessed?

- hands-on, project-based learning to apply your digital skills and knowledge
- create and refine digital solutions while addressing ethical, social, and security considerations

Other

- build a strong foundation for Level 3 computing subjects like Data Science & Digital Solutions, and Computer Science, while developing essential 21st-century IT skills

Data Science and Digital Solutions Level 3

What will I learn?

- build and apply skills in programming, user design, digital systems, and creating things like games or interactive systems
- explore ethical and real-world issues in tech, including online privacy, cybersecurity, and 'safe by design' principles

How will I learn and be assessed?

- complete hands-on projects — individually or in teams — that solve real-world problems using creative and computational thinking
- Be assessed through practical tasks, project work, and ongoing collaboration

Other

- this course is a strong foundation for future study in Data Science or Computer Science, as well as vocational tech pathways and the skills you learn are useful in almost any career

Computer Science Level 3

What will I learn?

- the study of computers and algorithmic processes, including problem solving and programming, data representation and the impact of computers on society
- about social and ethical issues and professional responsibilities

How will I learn and be assessed?

- practical programming tasks, assignments and tests
- mid-year internally assessed exam and an externally assessed exam

Other

- some background knowledge in coding may be useful, but is not essential as this subject caters for all levels of experience
- this subject leads directly into Computing and IT courses at university
- if you enjoy problem solving and have a reasonably strong background in maths, then this is the course for you

Engineering Design Level 3

What will I learn?

- how to apply creative thinking strategies and the engineering design process to create solutions
- project management skills
- the impact of emerging technologies and engineering projects on society
- how to communicate to technical and non-technical audiences

How will I learn and be assessed?

- creation of prototypes in response to design briefs
- design journal
- an externally assessed folio based on an extended engineering design project

Other

- a foundation for studies in Engineering, that also provides you with skills useful in any occupation that requires design skills



MEM20422 Certificate II in Engineering Pathways

What will I learn?

- knowledge and skills in the area of metal fabrication, welding and fitting and machining
- skills needed by the metal manufacturing, maintenance and engineering industries
- application of principles of Occupational Health and Safety in the work environment
- to use a diverse range of engineering workshop machines

**Subject to Service Agreement arrangements, TasTAFE Reg. 60142, will be the registered training organisation for this qualification. Course delivery is subject to sufficient demand and a confirmed service agreement with TasTAFE.*

How will I learn and be assessed?

- practical and theory assessments in both class and workshop environments
- practice at achieving accuracy as well as a high standard of workmanship
- the completion of a personal project utilising the skills you have developed

Other

- this is a Certificate II delivered in partnership with TasTAFE and Huonville High School*
- practical and theory assessments will take place at the Huon Valley Trade Training Centre
- suitably qualified TasTAFE staff will deliver all aspects of the qualification
- a work-based learning opportunity will be offered to students who express an interest in applying for off-site learning

RTO 3127



AVI30419 Certificate III in Aviation (Remote Pilot)

What will I learn?

- to plan and fly drone missions
- how to determine safe weather conditions
- Civil Aviation Safety Authority (CASA) air laws
- radio operator protocols
- what it is like to work in the aviation industry

How will I learn and be assessed?

- ongoing theory assessments in an interactive environment
- practical flying assessments
- you will have the opportunity to sit for your CASA Remote Pilot Licence and Radio Operators Licence

Other

- this course is offered in partnership with Taroona High and is facilitated at the Taroona High @ UTAS campus, Sandy Bay

ICT20120 Certificate II in Applied Digital Technologies

What will I learn?

- understand client ICT requirements and provide a broad range of ICT support
- communication skills to collaborate with clients and team members on projects
- use computer operating systems and hardware
- design spreadsheets
- create digital presentations
- identify cyber security threats
- install and use software

How will I learn and be assessed?

- through a combination of theoretical assessments, practical tasks, and project-based work

Other

- This qualification provides the foundation skills and knowledge to use basic applied digital technologies in varied contexts.
- The qualification is designed for those developing the necessary digital and technology skills in preparation for work.