

Sciences

Subject	Hours	TCE credit points	LIT	NUM	ICT	Recommended prior studies and/or entry requirements
Life Sciences Level 2	150	15				<ul style="list-style-type: none"> no previous experience, but enjoy science
Physical Sciences - Foundation Level 2	150	15				<ul style="list-style-type: none"> no previous experience, but enjoy science
Electronics Level 2	150	15				<ul style="list-style-type: none"> no previous experience, but enjoy hands-on work
Physical Sciences Level 3	150	15		✓		<ul style="list-style-type: none"> a B in Year 10 Science, Maths and English
Biology Level 3	150	15				<ul style="list-style-type: none"> a B in Year 10 Science and English
Environmental Science Level 3	150	15				<ul style="list-style-type: none"> a B in Year 10 Science and English
Chemistry Level 4	150	15		✓		<ul style="list-style-type: none"> a CA in Physical Sciences 3 or equivalent, and a strong background in Maths Level 3
Physics Level 4	150	15		✓		<ul style="list-style-type: none"> a CA in Physical Sciences 3 or equivalent, and a strong background in Maths Level 3
VET Certificate III Health Services Assistance Introduction to Nursing (SoA) - 1 line	150	15+				<ul style="list-style-type: none"> a C/B in Year 10 Science and English
VET Certificate III Health Services Assistance Introduction to Nursing (SoA) - 2 lines	300	30+				<ul style="list-style-type: none"> a C/B in Year 10 Science and English
VET Certificate III Health Services Assistance Advanced Introduction to Nursing - 1 line	150	15				<ul style="list-style-type: none"> Year 12 ONLY course, with background studies in Introduction to Nursing in Year 11

Science Tutorial Support Program

All Science subjects are supported by an extensive tutorial program run by College teachers. These tutorials are scheduled daily after school throughout the year.

Students can utilise the program as and when needed. All tutorials are held in the open area in E Block, Level 3.

Check out the Tutorial timetable at the beginning of the year and arrange your study schedule around it!



Life Sciences 2

What will I learn?

- ecosystems, biotechnology and function of living organisms
- the role and impact of biology in society
- aspects of human science, marine studies, environmental science, biochemistry or agriculture.

How will I learn and be assessed?

- investigations, hands-on practical work and field trips
- no external exams.

Other

- a stand-alone science subject for Year 11 or 12 or may lead to studies in Biology 3 or Environmental Science 3 in Year 12.

Physical Sciences 2

What will I learn?

- half a year of Chemistry and half a year of Physics
- basic principles of chemistry to describe properties of matter
- basic principles of physics and the use of practical data to describe natural phenomena
- the role and impact of chemistry and physics in society.

How will I learn and be assessed?

- carry out and interpret experiments
- no external exams.

Other

- a stand-alone science subject for Year 11 or 12, or may lead to studies in Physical Sciences 3 in Year 12.

Electronics 2

What will I learn?

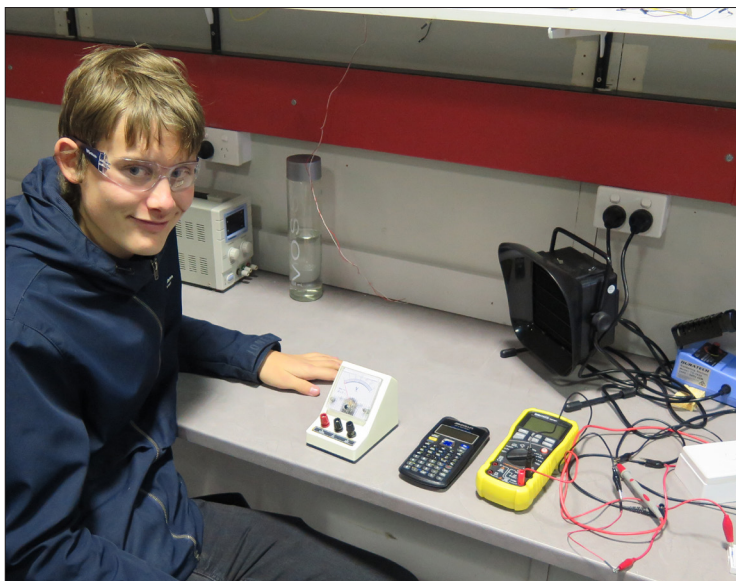
- about different electronic components and how they work
- how to prototype circuits, using breadboards and computers
- how to construct circuits using techniques like soldering
- the role of electronics in society.

How will I learn and be assessed?

- undertake practical work to plan, create and test circuits
- includes self-directed project work
- no external exams.

Other

- a great course for someone looking for a career in electronics, electrical trades or engineering
- ideal for students who enjoy working with their hands and making items that perform a function.



Physical Sciences 3

What will I learn?

- principles of chemistry and the fundamentals of reacting quantities
- principles of physics and how they are modelled mathematically
- how to gather and interpret data
- the role and impact of physics and chemistry in society.

How will I learn and be assessed?

- practical work and theory lessons on topics such as radioactivity, properties of elements, carbon chemistry, motion, force, energy and more
- assignments, practical reports and tests
- mid-year internally assessed exam and a 3 hour externally assessed exam.

Other

- leads to Chemistry 4 and/or Physics 4 in Year 12.

Biology 3

What will I learn?

- biochemistry, cell structure and function
- structure and function of biological systems of organisms (including humans)
- immunology, genetics and evolution
- scientific method and experimental design and the role and impact of biology in society.

How will I learn and be assessed?

- practical investigations in the laboratory on digestion and absorption, gas exchange, transport, excretion in organisms and more
- assignments, practical reports and tests
- mid-year internally assessed exam and a 3 hour externally assessed exam.

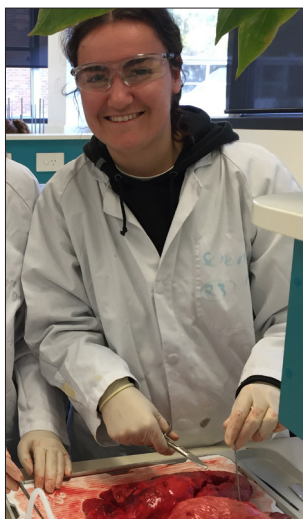
Environmental Science 3

What will I learn?

- understand ecological processes about changes to ecosystems locally and globally focussing on current and topical environmental issues including climate change
- how humans depend on and impact upon ecosystems
- measures used to sustainably manage the environment.

How will I learn and be assessed?

- apply scientific method and experimental design
- field trips to collect environmental data
- undertake research, perform investigations, surveys and case studies to explore how natural events and humans impact upon ecosystems
- assignments, practical reports and tests
- mid-year internally assessed exam and a 3 hour externally assessed exam.



Chemistry 4

What will I learn?

- fundamental principles and theories of electrochemistry, thermochemistry, reaction kinetics and equilibrium
- properties and reactions of organic and inorganic matter
- appreciate the role and impact of chemistry in society.

How will I learn and be assessed?

- practical work and theory lessons on topics such as carbon chemistry, gas behaviour, properties of elements, energy of reactions and more
- assignments, practical reports and tests
- mid-year internally assessed exam and a 3 hour externally assessed exam.

Other

*NB: Chemistry is a pre-requisite for many tertiary courses. Please check with each university for more information.

Physics 4

What will I learn?

- principles of Newtonian mechanics, including gravitational fields
- principles and theories of electricity and magnetism, including electric and magnetic fields, waves and wave particle duality in light, atomic and nuclear physics
- appreciate the role and impact of physics in society.

How will I learn and be assessed?

- practical work and theory lessons on topics such as sound waves, forces, circular motion, electromagnetism, properties of light and more
- assignments, practical reports and tests
- mid-year internally assessed exam and a 3 hour externally assessed exam.

Other

*NB: Physics is a pre-requisite for many tertiary courses. Please check with each university for more information.



VET Certificate III in Health Services Assistance (SoA) - three options available

What will I learn?

Three separate courses are available to support the learning needs and pathways of students:

- Pathway 1: Introduction to Nursing - 150 hours - for a university pathway towards a Registered Nurse or other university accredited health professional
- Pathway 2: Introduction to Nursing - 300 hours - for a vocational pathway to work as a carer and/or towards an Enrolled Nurse or other health professional
- Pathway 3: Advanced Introduction to Nursing - 150 hours - for high achieving Year 12 students who have completed Introduction to Nursing in Year 11.

How will I learn and be assessed?

- all three courses are very practical in nature
- work placement at a health facility (where available)
- online activities, assignments, practical reports
- no exams.

Other

- for specific details on each of the courses available, please access the Information Flyer that is available in the VET section of the Hobart College website.



HLT33115 Certificate III in Health Services Assistance - The Tasmanian Secondary Colleges RTO, code 60100, is the registered training organisation for these qualifications.