

Contextualised course title: LEVEL 1 Science - Engineering Solutions	Credits: 20+
Learning areas: Science	

What is this course about?
During this course, you will explore how scientific principles and skills can be applied to solve real world problems. This course is a mix of Earth science, biology, chemistry and physics.
What sort of things will I do?
Science is a way of investigating, understanding, and explaining our natural, physical world and the wider universe. It involves generating and testing ideas, gathering evidence – including by making observations, carrying out investigations and modelling, and communicating and debating with others – in order to develop scientific knowledge, understanding, and explanations. Scientific progress comes from logical, systematic work and from creative insight, built on a foundation of respect for evidence. Different cultures and periods of history have contributed to the development of science.
<i>This course cannot be taken in conjunction with 1SCIMAT or 1SCI Changing World</i>
Learning capabilities/ critical skills
Decision-making skills Logical argument Critical thinking Problem solving and creativity Computer literacy Teamwork Communication and interpersonal skills Observation and analysis Sorting/classifying Inferring Predicting Experimenting Practical scientific and statistical skills

Science Threshold Concepts
Science is informed by current scientific theories and aims to collect evidence that will be interpreted through processes of logical argument. Scientists develop and carry out complex investigations, including using models Apply their understanding of science to evaluate both popular and scientific texts (including visual and numerical literacy). Develop an understanding of socio-scientific issues by gathering relevant scientific information in order to draw evidence-based conclusions and to take action where appropriate.

Science standards available (possible range - would expect 20 - 24 credits)

NCEA Level	Standard Number	Name of standard	Credits	L1 Lit	L1 Num
1	AS90941	Investigate implications of electricity and magnetism for everyday life	4		y
1	AS90943	Investigate implications of heat for everyday life	4		y
1	AS90942	Investigate implications of wave behaviour for everyday life	4		y
1	AS90946	Investigate the implications of the properties of metals for their use in society	4		
1	AS90949	Investigate life processes and environmental factors that affect them	4		
1	AS90931	Demonstrate understanding of the chemistry in a technological application	3	y	
1	AS90936	Demonstrate understanding of the physics of an application	2	y	
1	AS90935	Carry out a practical physics investigation that leads to a linear mathematical relationship, with direction	4		y
1	AS90925	Carry out a practical investigation in a biological context, with direction	4		y
1	AS90926	Report on a biological issue	3	y	
1	AS90940	Demonstrate understanding of aspects of mechanics	4		
1	AS90948	Demonstrate understanding of biological ideas relating to genetic variation	4	y	