

# HUANUI COLLEGE



## COURSE & SUBJECT HANDBOOK FOR 2019

## **PRINCIPAL'S INTRODUCTION**

Dear Parents and Students

This guide has been produced to help students and parents make subject option choices for 2019. This initially can be very daunting for both students and their parents as most students do not have a clear idea of their future career pathway. Don't worry this is quite normal.

My advice is to gather information about the courses on offer. This guide provides a very basic outline. More details, including syllabi and past papers can be found at the Cambridge International Examinations website [www.cie.org.uk](http://www.cie.org.uk). Talk to your child's teacher's and career advisor Mr Pera. Choose your subjects wisely and don't be swayed by what friends are taking, or who you think the teacher may be. Be aware of what your strengths are, what you enjoy and what you are most successful at.

Year 11 and 12 students choosing Advanced Level courses (AS and A level) do need to be aware of how they will accumulate the appropriate number of UCAS points which will enable them to move onto Higher Education. It is important to do your research and find out what each university requirement is. More information on UCAS points in the AS/A level section of this guide.

Be aware that it is not possible for every student to be able to get their first choice of subjects. There will be restrictions. The final subject option lines are based on university requirements, current student numbers, availability of teachers and specialist classrooms.

When it comes to making subject choices for 2019, I would encourage our senior students to make use of this guide in conjunction with the advice of teachers, parents and career advisor.

Mr Peter Ackers

**Principal**

## **Introduction**

This guide aims to inform students and parents about the IGCSE and AS/A level subjects on offer at Huanui College.

Please be aware that some courses may not run because of insufficient numbers and staffing availability. It is not always possible to accommodate every combination of subjects. The timetabling team work hard to minimise the number of clashes.

If you require more information about any of the courses in this guide, go to [www.cie.org.uk](http://www.cie.org.uk) or contact the relevant Heads of Department or Teachers in Charge.

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## WHERE WILL MY SUBJECTS TAKE ME?

### An overview of Career Destinations with Tertiary Studies in the Subjects Offered at Huanui College

#### AGRICULTURE

New Zealand's agriculture industry is a multi-million dollar business, but it is a changing business that is growing every day thanks to new technologies and innovations that allow us to produce more food to feed our ever-growing population.

These days farmers know that their farm is more than just that, it's also a business and all sorts of people are needed to support those businesses. Whether you want to be a scientist, engineer, economist or even a marketing professional - you name it - the agriculture industry needs it. The Agriculture industry is full of interesting, practical and intelligent people who are literally feeding the world. So, if you're keen to learn new skills, not afraid of a challenge and love the outdoors and rural life, then agriculture could be the career path for you.

#### ART & DESIGN

Many Fine Arts and Design students pursue their creative talents full-time as artists in their own right or commercial designers working in applied areas such as graphic design, product design, digital and media design, spatial, landscape or fashion design. The importance of good design principles is being increasingly recognized in industry today as NZ producers move away from mass-market products to niche and value-added production and consumers become more demanding of good visual design in the items they buy.

#### BIOLOGY

For pure Biology there are wide-ranging careers in crown research institutes, government ministries (Conservation, Environment, Agriculture & Forestry, Health) public and private-sector organisations involved in forensic science, fisheries, aquaculture, oceanography, etymology, soil science, veterinary and medical services. There is also an expanding field of work in biosecurity as the need to protect a country's plant and animal life against imported pests and diseases grows with globalisation.

Biology expands at university level into specialised programmes which combine skills and knowledge with other subjects, for example: **Pharmacology**, **Biotechnology and Food Technology**, **Medical Imaging**, **Bioinformatics** and **Biomedical Engineering**. It is also the major contributing science to specialised health courses such as **Medicine**, **Veterinary Science**, **Physiotherapy**, **Sport & Exercise Science** and **Biomedical Science**.

#### BUSINESS STUDIES

This can feed comfortably into a variety of business degree specialisations such as Management Studies, Marketing and Finance, and lead to successful careers in financial management, human resources management, information systems marketing and product management.

#### CHEMISTRY

Graduates with a major in Chemistry find career opportunities in New Zealand's resource-based industries such as energy, forestry, dairy, petrochemicals, aluminium or biotechnology, working in applied technology, research and development, quality control, environmental control and monitoring, forensic science, sales and management. Good career opportunities also exist in the crown research institutes, especially in the areas of materials technology and biotechnology.

Chemistry is also a fundamental part of specialised programmes which combine skills and knowledge with other subjects, for example **Pharmacology**, **Biotechnology and Food and Engineering**. It also contributes to specialised health courses such as **Medicine**, **Pharmacy**, **Veterinary Science** and **Biomedical Science**.

## **COMPUTING**

Computing graduates can enter a variety of fields in business, administration, programming and networking. They may work for ICT companies like Google, Microsoft, Facebook and Twitter or companies that integrate hardware and software into other organisations, website development/project management businesses, government organisations, ICT specialists in-house in all other organisations. There is a shortage of graduates who are qualified in Computer Science and Software Engineering; particularly those who combine technical expertise with good communication skills and teamwork ability. Graduates with degrees that include disciplines such as commerce and engineering are also very employable.

## **DRAMA**

A degree in Drama (typically a BA or MA) can lead on to a variety of careers such as film and television, theatre, costume and set design, technical fields such as lighting, directing, careers involving sound communication skills, teaching, lecturing and the creative arts.

## **ENGLISH**

A degree in English (typically a BA or MA) can lead on to careers wherever strong communication skills are an asset. These include law, journalism, advertising, creative and critical writing, speech and policy writing, publishing, film and media, recruitment and human resources management, social service agencies, education at all levels, library and information services, central government social policy ministries, local government, and, at times, financial market trading.

## **GEOGRAPHY**

Many Geography graduates (with either Arts or Science degrees depending on the complementary subjects) find work in resource and urban planning, environmental impact and conservation studies, Geographic Information Systems (GIS) work, market research (using demographic analysis skills), social policy work in government, teaching and planning consultancies. Geographical skills are also an important component in other professional degree courses like Planning, Surveying and Geology.

## **HISTORY**

Students completing an AS or A2 in History will find their studies complimenting a broad range of pathways, from arts and media, government and law, through to education, business and commerce or further study in the humanities. Occupations or professions can also be broad and History is a subject that teaches skills that are beneficial in any field that relies on being well-informed and involves decision-making.

## **LANGUAGES**

Knowledge of languages other than English is useful in the global economy, especially in areas such as the hospitality industry, travel and tourism, export marketing, importing and outsourcing of manufacturing, entertainment and fashion, international finance, foreign diplomacy, interpreting and social work involving migrants and refugees. Information services and teaching also offer strong job prospects for specialists in many popular languages.

## **MATHEMATICS**

Mathematicians work in a surprisingly wide range of professions and applied skills. Their skills are employed directly in statistical analysis and research, actuarial work for financial markets and insurance, economic forecasting, operations research in industry, logistical planning and management, computer programming and scientific and medical research. Maths is also an essential ingredient for degree courses in engineering (with Calculus) and surveying (with Geometry/Trigonometry) and features with Biology and Physics in medically-based specialities such as Bioinformatics and Medical Imaging. Mathematicians are also in high demand at all levels of the teaching profession and in all areas of market analysis.

## **MARINE SCIENCE**

Marine Science can be useful if you want to study any of the Environmental Sciences at University, such as Earth Sciences or Marine Sciences, and you will learn more about the ocean, the seas, and how the international resources they provide can be used in a responsible and environmentally sustainable way. Both Earth and Marine Sciences include a strong focus on environmental issues. You might look at the Earth's resources, how we use them and how they can be best preserved, atmospheric changes and their effect on life on Earth, or how human activity might increase the likelihood of natural disasters. These topics are becoming more and more important by the day; choose to focus on them and you may well find yourself working amidst the frontline of scientists dedicated to protecting the planet.

## **PHYSICAL EDUCATION**

Graduates in this field often work in secondary teaching, but with the rise of more generic Sport & Fitness degrees and related courses and the rise of the outdoor recreation, professional sport and the "fitness industry" work opportunities are now much broader. Increasingly also the adventure tourism and outdoor pursuits industry is employing young people with physical education skills and an interest in the outdoors. Physical education also nurtures the skills needed for careers in areas like physiotherapy, nursing and paramedic work, although the importance of additional science training for entry to these fields should not be underestimated.

## **PHYSICS**

Physicists are employed for their ability to measure, analyse and predict the behaviour of complex physical systems. As such, they are extremely valuable in many areas of scientific research and technological development including geological, astronomical and climate change research, electronics, energy exploration and research, telecommunications, aviation and space travel development, military and industrial research. Physics is an essential subject for entry into engineering degree courses and figures highly in applied programmes such as **Medical Imaging, Optometry and Optoelectronics**.

## **PSYCHOLOGY**

There are various career opportunities open to those with Psychology qualifications in New Zealand. These opportunities are in the public sector, health services, university and other educational institutions and a large number of psychologists are in private practice. Psychologists are also employed in a wide range of workplaces, and many practise privately as independent contractors and consultants. Psychology is also incredibly useful in addition to other subjects such as Business, Physical Education, Graphics, Computing as well as Science and Technology.

## **Career Guidance**

Choosing subjects at school is an important part of your future. All subjects open the doors to interesting and varied career pathways. The trick is to make sure you choose the right subjects to open the right doors for you. There are many aspects that need to be taken into account when you choose, including compulsory subjects, our school timetable, what you enjoy and, most importantly, what you might need to enter a particular degree or tertiary course.

As many students have not yet settled on a career path (especially at Year 11 level) it can be difficult to decide which the 'best' subjects to study are. Apart from a number of specialised areas it is generally better to keep your options as broad as possible. You will have an extensive choice of study pathways on leaving school, many of them unrelated to school subjects or offering learning areas you may have missed that are important for the qualification you are seeking. Medicine, Engineering, Veterinary Science and Art/Design courses are the traditional areas where school subject choice can have an impact but there are an increasing number of degrees where entry can depend on you having studied a specific subject to a certain level at school.

If you are uncertain about the requirements for a particular course which you may be interested in studying, it is a good idea to talk to Mr Pera or research the course entry requirements on university websites. This is very important if you are planning on studying overseas because they may have different entry requirements to New Zealand universities. Knowledge is the key to choosing the right subjects.

Huanui College will organise visits from various universities and tertiary providers; as well as career-specific talks. Together we can plan for your future. Take the first step and ask for an interview to let us help you to investigate the possibilities for your future.

Mr Pera is available for career and scholarship advice, as well as practical advice on how to enrol in courses and apply for halls of residence.

Mr Christian Pera

[christian.pera@hc.school.nz](mailto:christian.pera@hc.school.nz)

## Subjects and Levels at Huanui College

	<b>Year 11 IGCSE Please select 4 option subjects</b>	<b>AS Level Please select 3 option subjects</b>	<b>A2 Level Please select up to 4 subjects</b>
<b>Compulsory Subjects</b>	<b>English</b>	<b>English</b>	
	<b>Mathematics</b>		
<b>Option Subjects</b>	Agriculture	Art and Design	Art and Design*
	Art and Design	Biology	Biology
	Biology	Business Studies	Business Studies
	Business Studies	Chemistry	Chemistry
	Chemistry	Computing	Computing*
	Design & Technology	Design & Technology	Design & Technology*
	History	Global Perspectives	English Literature
	Information Technology	Geography	Marine Science*
	Geography	History	Mathematics
	Physics	Marine Science	Physics
	Physical Education	Mathematics	History*
	Spanish	Physical Education	Physical Education*
		Physics	
		Psychology	
		Spanish	

\* Possibly combined with AS Class



## **IGCSE – International General Certificate of Secondary Education**

For most students IGCSE is completed at the end of Year 11 with final examinations. Huanui College students can sit up to six IGCSE subjects in one year.

### **Compulsory subjects for Huanui College students**

- English Literature with Language
- Mathematics

Students are to select an additional four subjects offered in this handbook. Some IGCSE courses at Huanui College have both extended and core components. Extended level is aimed at grades of A\*, A, B, C. Where appropriate some students may be entered for the core level examinations. Core level is aimed at students who will achieve grades of C, D, E, F and G.

### **General Guidelines**

When making your subject choices we would encourage you to consider the following:

- Look closely at your current subjects. Think about which ones you enjoy and you do well at.
- Maintain a broad range of subjects and avoid specialising too early in your schooling
- Plan your option choices carefully, think ahead to what you may study in Years 12 and 13. Some of these subjects may have prerequisites.
- If you have a future career path in mind. Take the time and trouble to find out which subjects would help you to reach your career goals.

# **Agriculture (IGCSE)**

## **Pre-requisites**

None

## **Description/Aims**

Our aim is to promote an appreciation of Applied Science and stimulate positive attitudes that by showing that efficient and sustainable farming can be both a profitable and rewarding occupation for **any** student.

1. General Agriculture
2. Soil
3. Principles of plant growth
4. Crop Production
5. Crop Protection
6. Livestock Anatomy and Physiology
7. Livestock Production and Health
8. Pasture Management
9. Livestock and Crop breeding
10. Farm Structures and Tools

## **Methods of Assessment**

- **Paper 1: 1Hour 45 Minutes**  
**Worth 70% of the overall IGCSE Grade**

This paper has two sections:

Section A: A number of compulsory, short, structured questions.  
Worth 70 Marks.

Section B: Candidates answer two out of five free-response questions.  
Worth 30 Marks.

- **Coursework and Practical Assessments:**  
**Worth 30% of the overall IGCSE Grade**  
There are at least **four** practical exercises carried out over the course. These practical exercises should show pupils' skills and abilities.

AND

A practical Investigation, which is identical to an investigative Science Fair, based on something Agricultural. Students are rewarded for their practical and investigative skills.

## **Special Equipment and Cost**

Students will need a laptop computer to complete the coursework requirements. We aim to visit a number of different Farms and Agricultural Businesses in the locality.

## **Continuation of subject at School**

We are still exploring our options for this.

## **Reference Person**

Stephen Towey (Stephen.towey@hc.school.nz)

## **Art and Design: Painting and Drawing (IGCSE)**

### **Pre-requisites**

Year 10 entry: at least a C grade for Year 9 Art Folio.

Year 11 Entry: Students should have studied IGCSE Art & Design at Year 10 level.

### **Description/Aims**

The two year course for IGCSE Art and Design at Huanui considers expression and communication. Students focus on Painting and Related Media as they learn about visual perception and aesthetic experience. An awareness of historic and contemporary art in New Zealand and around the world is promoted. Most of the work for this syllabus is practical or studio based, so that students can develop their abilities of observation and analysis of the visual world, sensitivity, skill, personal expression and imagination. They also learn how to relate their skills to an enhanced knowledge of their own cultures, past and present.

### **Course Outline**

The aim of Year 10 Art and Design is for students to begin to develop a personal style and awareness of Visual Art elements and art styles. Students study several artists both locally and internationally and experiment with a variety of artistic techniques to one theme – portraiture.

The aim of Year 11 Art and Design is for students to complete both assessed art folios and to develop their own personal styles and personal vision.

### **Methods of Assessment**

Students will be required to enter in two papers. The first is a coursework component that is developed throughout Year 10 and the first two terms of Year 11. The second is the Painting and Related Media examination, where student produce a body of artwork on a particular theme throughout Year 11 Term Three and sit the eight hour examination in Year 11, Term Four.

### **Special Equipment and Cost**

- Art Materials
- There will be opportunities for students to go on exhibition visits (to Auckland and Whangarei Art Galleries) throughout the course.
- Cost of materials and postage of folios to Cambridge, UK

### **Continuation of subject at School**

Students can go on to study Art and Design at Cambridge AS and A Level in Years 12 and 13 at Huanui College.

**Reference Person** Ashlee Rouse (ash.rouse@hc.school.nz)

# Biology (IGCSE)

## Pre-requisites

None

## Description/Aims

Cambridge IGCSE Sciences are accepted by universities and employers as proof of real ability and knowledge. Subjects covered are:

1. Characteristics and classification of living organisms (Mostly covered in year 10)
2. Organisation of the organism (Mostly covered in year 10)
3. Movement in and out of cells (Mostly covered in year 10)
4. Biological molecules (Mostly covered in year 10)
5. Enzymes
6. Plant nutrition
7. Human nutrition (Mostly covered in year 10)
8. Transport in plants
9. Transport in animals
10. Diseases and immunity
11. Gas exchange in humans
12. Respiration
13. Excretion in humans
14. Coordination and response
15. Drugs
16. Reproduction (Mostly covered in year 10)
17. Inheritance
18. Variation and selection
19. Organisms and their environment
20. Biotechnology and genetic engineering
21. Human influences on ecosystems

## Methods of Assessment

- **Paper 1** 45 minutes

A multiple-choice paper based on the Core curriculum and will be of a difficulty appropriate to grades C to G weighted at 30% of total available marks

or

- **Paper 2** 45 minutes also multiple choice, but aimed at the Extended Syllabus

Then either

- **Paper 3** 1 hour 15 minutes (aimed at grades G to C)

Written paper consisting of 80 marks of short answer and structured questions weighted at 50% of total available marks

or

- **Paper 4** 1 hour 15 minutes (aimed at higher grades)

Written paper consisting of 80 marks of short answer and structured questions, at least a quarter of the marks available will be based on Core material and the remainder on the supplement weighted at 50% of total available marks.

Then all take

- **Paper 6** 1 hour Alternative to Practical written paper designed to test familiarity with laboratory based procedures weighted at 20% of total available marks

## Special Equipment and Cost

Students may be required to purchase workbooks and a set of past exam papers to work through throughout the year.

## Continuation of subject at School

Cambridge AS level Biology and thereafter Cambridge A2 Level Biology, Marine Science

## Reference Person

Stephen Towey (Stephen.towey@hc.school.nz)

# **Business Studies (IGCSE)**

## **Pre-requisites**

None

## **Description/Aims**

Cambridge IGCSE Business Studies is accepted by universities and employers as proof of an understanding of business concepts and techniques across a range of different types of businesses. Successful IGCSE Business Studies students gain lifelong skills, including:

- Understanding different forms of business organisations and the environments in which businesses operate;
- Business functions such as marketing, operations and finance;
- An appreciation of the critical role of people in business success;
- Confidence to calculate and interpret business data;
- Communication skills including the need to support arguments with reasons;
- Ability to analyse business situations and reach decisions or judgements.

## **Course outline**

1. Business Activity
2. Business Structure, Organisation and Control
3. Business Activity to Achieve Objectives
4. People in Business
5. Regulating and Controlling Business Activity

## **Methods of Assessment**

- **Paper 1** 1 hour 30 minutes  
Short-answer questions and structured/data response questions. 50% of total marks.
- **Paper 2** 1 hour 30 minutes  
Questions arising from a given case-study (not pre-released). 50% of total marks.

## **Special Equipment and Cost**

Students will be required to purchase a text book, workbook and notebooks. The costs of field trips will vary according to the nature of the excursion.

## **Continuation of subject at School**

Business AS and A2 Level

## **Career Opportunities**

Business Studies can feed comfortably into a variety of business degree specialisations such as Management Studies, Marketing and Finance, and lead to successful careers in financial management, human resources management, information systems marketing and product management.

## **Reference Person**

Mrs Amanda Gurr (Amanda.gurr@hc.school.nz)

# Chemistry (IGCSE)

## Pre-requisites

None

## Description/Aims

- Cambridge IGCSE Sciences are accepted by universities and employers as proof of real ability and knowledge. As well as a subject focus, the different syllabuses enable:
- an understanding of how scientific theories and methods have developed, and continue to develop, as a result of groups and individuals working together
- knowledge that science overcomes national boundaries and that the language of science, used correctly and thoroughly, is universal
- improved awareness of the importance of objectivity, integrity, enquiry, initiative and inventiveness and better understand the technological world, with an informed interest in scientific matters
- recognise the usefulness (and limitations) of scientific method, and how to apply this to other disciplines and in everyday life
- develop relevant attitudes, such as a concern for accuracy and precision, objectivity, integrity, enquiry, initiative and inventiveness
- further interest in, and care for, the environment
- learn how science is studied and practised, and become aware that the results of scientific research can have both good and bad effects
- better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community and the environment
- develop an understanding of the scientific skills essential for both further study at Cambridge International A Level and in everyday life.

## Methods of Assessment

- **Paper 1** 45 minutes  
A multiple-choice paper based on the Core curriculum and will be of a difficulty appropriate to grades C to G weighted at 30% of total available marks

Or

- **Paper 2** 45 minutes also multiple choice, but aimed at the Extended Syllabus

Then either

- **Paper 3** 1 hour 15 minutes (aimed at grades G to C)  
Written paper consisting of 80 marks of short answer and structured questions weighted at 50% of total available marks

Or

- **Paper 4** 1 hour 15 minutes (aimed at higher grades)  
Written paper consisting of 80 marks of short answer and structured questions, at least a quarter of the marks available will be based on Core material and the remainder on the supplement weighted at 50% of total available marks.

Then, all take

- **Paper 6** 1 hour Alternative to Practical written paper designed to test familiarity with laboratory based procedures weighted at 20% of total available marks

## Special Equipment and Cost

Students will be required to purchase workbooks.

## Continuation of subject at School

Cambridge AS level Chemistry and thereafter Cambridge A2 Level Chemistry, Marine Science

**Reference Person** Fiona Boorer (Fiona.boorer@hc.school.nz)

# **Design and Technology (IGCSE)**

## **Pre-requisites**

Students must achieve a C grade or better in Year 10 Graphics Design Technology.

## **Description/Aims**

- awareness, understanding and expertise in those areas of creative thinking which can be expressed and developed through investigation and research, planning, designing, making and evaluating, working with media, materials and tools
- the ability to solve practical and technological problems using processes of analysis, synthesis and realisation
- a range of communication skills which are central to design, making and evaluation
- a range of making skills
- the desire to relate their work to their personal interests and abilities by learning and experimenting with materials in practical areas
- greater curiosity, enquiry, initiative, ingenuity, resourcefulness and discrimination
- improved technological awareness, attitudes of co-operation and social responsibility and abilities to enhance the quality of the environment
- the ability to make value judgements of an aesthetic, technical, economic and moral nature

## **Course outline**

The course will be based around two components. The first component is made up of knowledge based teaching and learning. The second component is a coursework project which involves an individual design problem and production of a design model.

## **Methods of Assessment**

Examination – two papers.

- Paper 1 (Compulsory) 25% Marks -1hr 15 min tests design drawing.
- Paper 2 (Graphic Products) 25% Marks 1hr. It tests design knowledge and communication.
- The other 50% is obtained by Coursework project (paper 5). A compulsory school-based assessment (internally marked, externally moderated.). 100 marks are available for the project.

## **Special Equipment and Cost**

All students will require

- A4 Visual Diary
- The basic graphics kit (approximate cost \$45) or similar.
- Printing & modelling costs \$20

## **Continuation of subject at School**

AS Level Design and Technology Graphic products

**Reference Person** Sharon Cole (Sharon.cole@hc.school.nz)

# English Literature and Language (IGCSE)

## Course pre-requisites

No pre-requisites

## Description/Aims

**IGCSE** (International General Certificate of Secondary Education) is the first level of the Cambridge examination system.

English at this level is studied over a two-year period. Students take a combination course of Language and Literature.

Year Ten – The first year of an IGCSE course:

- Develops the ability to communicate clearly, accurately and effectively in both speech and writing.
- Encourages students to employ a wide-ranging vocabulary, use correct grammar, spelling and punctuation, and to develop a personal style and an awareness of the audience being addressed.
- Develops more general analysis and communication skills such as synthesis, inference, and the ability to order facts and present opinions effectively.
- Develops the skills to read, interpret and evaluate texts through the study of a range of literature including Fiction, Poetry and Shakespeare.

Year 11 – The IGCSE syllabus enables students to:

- Read, interpret and evaluate texts through the study of literature in English.
- To develop an understanding of literal meanings, relevant contexts and of the deeper themes or attitudes that may be expressed.
- Learn to recognise and appreciate the ways in which writers use English to achieve a range of effects, and be able to present an informed, personal response to the material they have studied.
- Explore wider and universal issues, promoting better understanding of themselves and of the world around them.

## Course Outline

### Year 10 English: Literature and Language

The study of –

- four different literary genre: Novel, Short Story, Poetry, Drama (Shakespeare)
- Language skills: Critical and informed response to writing and speaking in a range of forms, styles and contexts
- Interdependent skills of reading, analysis and communication
- Effective and appropriate communication

### Year 11 English Literature

At Year 11, IGCSE English Literature expands students' knowledge and understanding of Shakespeare, Poetry, Unseen Texts and the Novel. In 2019, the syllabus requires the study of:

- One Shakespearean play
- Selected poems – from CIE
- Novel
- Unseen Texts

## Method of Assessment

Students sitting IGCSE English Literature in 2019 sit one 45 minute Drama examination, one 1 hour 30 min Poetry & Prose examination and one 1 hour 15 min Unseen Text examination at the end of the year, which forms 100% of the total mark. All questions carry equal marks.

At the HODs discretion, some students may be required to sit the *IGCSE Language* paper as an alternative qualification.

**Reference Person** Brenda Rudolph (Brenda.rudolph@hc.school.nz)



# Geography (IGCSE)

## Pre-requisites

No pre-requisites

## Description/Aims

IGCSE Level Geography is a programme which provides students with a large number of key skills, which will support further study in any subject area. The geographical content focuses on promoting an understanding of key *processes and patterns* in *population and settlement, the natural environment, and economic development and the use of resources*.

There is a strong emphasis on **Skills, data analysis and Enquiry**, which students, particularly of scientific disciplines will find familiar and support their study. These include:

- An understanding of the impacts which both physical and human geography can have and the processes which affect their development.
- A sense of place and an understanding of relative location on a local, regional and global scale.
- The ability to use and understand geographical data and information.
- An understanding of how communities and cultures around the world and how they are affected and constrained by different environments.

Students completing Geography will find their studies complimenting a broad range of vocational pathways. Occupations or professions can also be broad and include scientific, military, primary industry, financial, government and non-government organizations, tourism and service sector occupations.

## Course outline

Geography at the IGCSE Level seeks to provide students with a balanced foundation upon which advanced skills and understanding can be developed further at AS/A2 Level. The curriculum is divided into three themes which have been designed to develop an understanding of both the natural and the human environment.

Questions in all written papers are resource based. The resources may be photographic, map extracts, drawings, diagrams, graphs, text extracts, statistics and tables of data. Candidates may be dealing with world areas with which they are not familiar. The resources used in questions **do not** require specific regional knowledge and are designed to prompt candidates to use general principles they have studied. Case studies are taught to illustrate the themes.

## Methods of Assessment

Students taking IGCSE Geography will sit three separate examinations at the end of year. These are structured accordingly as indicated below

Paper 1: 45% of Total Marks	1 hour 45 minutes
Paper 2: 27.5% of Total Marks	1 hour 30 minutes
Paper 4: 27.5% of Total Marks	1 hour 30 minutes

## Special Equipment and Cost

- Students will be required to purchase one core textbook and a Lever Arch File for this course.

## Continuation of subject at School

Students completing a one year IGCSE in Geography have the opportunity to continue to AS/A2 level in Geography the following year.

**Reference Person** Paul Clark (paul.clark@hc.school.nz)

# History (IGCSE)

## Pre-requisites

No pre-requisites

## Description/Aims

Cambridge International IGCSE Level History is a programme which provides students with a large number of key skills, which will support further study in any subject area. This History syllabus offers students the opportunity to study some of the major international issues of the 20th century, as well as looking in greater depth at the history of a particular region. The emphasis within the syllabus is on *developing lifelong historical skills as well as acquiring knowledge*.

There is a strong emphasis on **Skills and Enquiry**, which students, particularly of humanities and literacy focused disciplines will find supports their study in other subjects. These include:

- an interest in and enthusiasm for learning and understanding about the past.
- an understanding of historical concepts such as cause and consequence, continuity and change, and similarity and difference.
- an appreciation of historical evidence and how to use it.
- a greater understanding of international issues and inter-relationships.
- how to present clear, logical arguments, and how to write at length on a historical topic.

IGCSE History is excellent preparation for AS/A2 History in addition to being stimulating and challenging in itself.

Students beginning in IGCSE History and then progressing to AS or A2 in History will find their studies complimenting a broad range of pathways, from arts and media, government and law, through to education, business and commerce or further study in the humanities. Occupations or professions can also be broad and History is a subject that teaches skills that are beneficial in any field that relies on being well-informed and involves decision-making.

## Course outline:

History at the IGCSE Level seeks to provide students with a balanced foundation upon which further subject specific skills and understanding can be developed. All students must study one Core Content and one of the Depth Studies. The Core Content is structured by Key Questions and Focus Points. Students will be expected to demonstrate an understanding of the Key Questions and Focus Points, using knowledge of relevant historical examples.

## Methods of Assessment:

Students taking IGCSE History in 2019 will sit two separate examinations at the end of year, plus complete a piece of coursework (candidates produce one piece of extended writing based on a Depth Study devised by the Centre). These are structured accordingly as indicated below:

Paper 1: 40% of Total Marks	2 hours
Paper 2: 33% of Total Marks	2 hours
Component 3: 27% of Total Marks	Coursework

## Special Equipment and Cost

- A Lever Arch file for readings and handouts.
- Field trips may be added but only if applicable to the topics studied.

## Continuation of subject at School

AS/A2 level in History

**Reference Person** Paul Clark (paul.clark@hc.school.nz)

# Information & Communication Technology (IGCSE)

## Pre-requisites

None

## Description/Aims

Through the study of these subjects students will grow in their awareness of how applications are used in the workplace and will consider the impact of new technologies on methods of working and on social, economic, ethical and moral issues. Students find their developing skills are useful to them in their work across the curriculum and will prepare them for future employment. The course combines a number of practical and theoretical units of study. The practical topics focus on enhancing student skills in commonly used software applications such as word processing, spreadsheets, interactive presentations, databases, electronic mail, web browsers, image manipulation and website design.

## Course outline

The IGCSE ICT curriculum is split between eight theory and eight practical units. The theory units cover a wide range of topics including, networks, communication and file management.

## Practical units

1. [Communication](#)  
[File management](#)
2. [Images](#)
3. [Layout](#)
4. [Styles](#)
5. [Proofing](#)
6. [Graphs and charts](#)
7. [Document production](#)
8. [Data manipulation](#)
9. [Presentations](#)
10. [Data analysis](#)
11. [Website authoring](#)

## Methods of Assessment

Paper	Focus	Length	Marks	Weighting
One	Theory	2 hours	100 marks	40%
Two	Practical	2.5 hours	80 marks	30%
Three	Practical	2.5 hours	80 marks	30%

## Special Equipment and Cost

It would be useful if students had their own laptops. The full Microsoft Office suite is available for free through a Microsoft website: [bit.ly/hcmsofficefree](http://bit.ly/hcmsofficefree). Remember to use your school email: [first.last@hc.school.nz](mailto:first.last@hc.school.nz).

## Career Opportunities

The importance of good technological skills can never be underestimated and trained people with applied skills in all areas of trades and technology continue to be in high demand as skill shortages remain even in times of recession. The skills imparted in school-based technology courses give a sound basis for further training across the board in either traditional trades or applied technology for industry and information services.

**Reference Person** Peter Ackers (peter.ackers@hc.school.nz)

## **Language: Spanish (IGCSE Level)**

### **Pre-requisites:**

Students who have excelled at Year 10 Spanish are recommended to undertake the second year of the IGCSE course. Beginners will not be accepted.

### **Description/Aims**

The course for IGCSE aims to further build on skills of oral and written communication with pupils learning to use Spanish to enable them to cope in a variety of common everyday situations.

### **Achievement Objectives**

While the level of mastery will depend on the particular pupil, the IGCSE course is based on five subject areas:

- Everyday Activities
- Personal Social Life
- The World Around Us
- The World of Work
- The International World

### **Methods of Assessment**

The CIE examinations for IGCSE Spanish are in October/November. The speaking exam is internally assessed and will take place early in Term Four. There are four papers in total and each one is worth 25%.

Paper 1: Listening

Paper 2: Reading and Directed Writing

Paper 3: Speaking Assessment

Paper 4: Continuous Writing

### **Special Equipment and Cost**

To undertake the IGCSE course, at the start of Year 10, students own:

- LISTOS 3 Cuaderno (approximately \$8.00)
- BBC Bitesize GCSE Revision Guidebook and CD. (approximately \$25.00)

### **Continuation of subject**

Students can go on to study Spanish at Cambridge AS and A Level in Years 12 and 13 at Huanui College.

**Reference Person** Terese Storey (terese.storey@hc.school.nz)

# **MATHEMATICS CORE (IGCSE)**

## **Pre-requisites**

Students who do not meet the pre-requisites for the Mathematics Year 11 IGCSE Extended Course are recommended to the Year 11 IGCSE Core Course.

## **Description/Aims**

The aim of this course is to introduce and develop basic mathematical skills, concepts, and understandings in the Number, Algebra, Trigonometry, Functions, Geometry, Co-ordinate Geometry, Transformations and Vectors, Mensuration, Probability and Statistics strands.

## **Course Outline:**

An outline of the syllabus is as follows

- Arithmetic - *revision work from Year 10*
- Number – *place value, integers, decimals, fractions, percentages, standard form, order of operations, significant figures, estimation, limits of accuracy, currency conversions, ratios, rates and proportion*
- Algebra – *patterns, simplifying, linear equations, quadratic expressions & equations, formula, simultaneous equations, indices, change of subject*
- Measurement – *time, perimeters, areas, volume*
- Trigonometry - *right angled triangles*
- Geometry - *parallel line geometry, polygons, circle geometry, transformations, loci & construction*
- Graphs – *coordinates, straight lines, parabolas, hyperbolas*
- Probability & Statistics – *averages, data display, probability*
- Problem Solving

Note: A Year Plan will be issued to the student in Week 1

## **Methods of Assessment**

### **Internal**

There will be on-going evaluation of their ability and application of the concepts being taught. Assessment is based on class work, homework, investigations, quizzes, tests, Mid & End-of-Year Examinations.

### **External**

Candidates who have followed the **Core** curriculum will take:

The Core Curriculum Examination in October/November where the Grades available are C – G.

- Paper 1 - short answer questions (1 hour) Weighting: 35%
- Paper 3 - structured questions (2 hours) Weighting: 65%

## **Additional Comments**

In Year 11, students will be selected to follow the Core or Extended syllabus according to their progress in Year 10. Satisfactory progress in Year 10 is necessary to do the Extension syllabus in Year 11.

## **Special Equipment and Cost**

Protractor, compass, ruler, and a scientific calculator FX-82. (Casio FX 991ES is recommended)

Mathematics Core and Extended (Third Edition) by Ric Pimentel and Terry Wall and examination practice papers (does not include textbook if purchased in Year 10).

## **Continuation at School**

At the conclusion of this course, a student may be recommended to complete the IGCSE Extension Course or re-sit the IGCSE Core Examination if their grade is lower than a D.

**Reference Person** Vicki Haverkort (vicki.haverkort@hc.school.nz)

# MATHEMATICS EXTENDED (IGCSE)

## Pre-requisites

Year 10 Mathematics

Students should have gained:

- an average of 65% or more in Year 10 Mathematics topic tests

Or

- an average of 65% or more in Year 10 Mathematics internal examinations

## Description/Aims

The aim of this course is to introduce and develop basic mathematical skills, concepts, and understandings in the Number, Algebra, Trigonometry, Functions, Geometry, Co-ordinate Geometry, Transformations and Vectors, Mensuration, Sets, Probability and Statistics strands.

## Course Outline:

An outline of the syllabus is as follows:

- Arithmetic - *revision work from Year 10*
- Algebra – *patterns, simplifying, linear equations, quadratic expressions & equations, formula, simultaneous equations*
- Measurement - *perimeters, areas, volume, limits of accuracy*
- Trigonometry - *right angled triangles, angles in three dimensions, non-right angled triangles*
- Geometry - *parallel line geometry, polygons, circle geometry, transformations, loci & construction*
- Graphs – *linear and non-linear functions, variation, linear programming*
- Probability & Statistics – *averages, data display, probability*
- Matrices & Matrix transformation
- Problem Solving
- Revision

Note: A Year Plan will be issued to the student in Week 1

## Methods of Assessment

### Internal

There will be on-going evaluation of ability and application of the concepts being taught. Assessment is based on class work, homework, investigations, quizzes, tests, Mid & End-of-Year Examinations.

### The syllabus is EXTERNALLY examined as follows:

Candidates who have followed the **Extended** curriculum will take:

The Extended curriculum Examination in October/November where the Grades available are A\* - E.

- Paper 2 - short answer questions ( $1\frac{1}{2}$  hour) Weighting: 35%
- Paper 4 - structured questions ( $2\frac{1}{2}$  hours) Weighting: 65%

## Special Equipment and Cost

Protractor, compass, ruler, and a scientific calculator FX-82. (Casio FX 991ES is recommended)

Textbook and examination practice papers

## Continuation at School

At the conclusion of this course, a student will be well prepared to continue studying Mathematics in Year 12 at AS Level, if their grade is B or higher. If their grade is lower than a D, they are recommended to re-sit the IGCSE Extended Examination.

**Reference Person** Vicki Haverkort (vicki.haverkort@hc.school.nz)

# Physical Education (IGCSE)

## Pre-requisites

None

## Description/Aims

The syllabus provides learners with an opportunity to study both the practical and theoretical aspects of Physical Education. It is designed to encourage enjoyment in physical activity by providing learners with an opportunity to take part in a range of physical activities and develop an understanding of effective and safe physical performance. This helps learners to develop an appreciation of the necessity for sound understanding of the principles, practices and training that underpin improved performance, better health and well-being.

## Course outline

Universities and employers accept Cambridge IGCSE Physical Education as proof that candidates have knowledge, skills and an understanding of a range of relevant physical activities.

Successful Cambridge IGCSE Physical Education students gain lifelong skills, including:

- an ability to plan, perform, analyse and improve, and evaluate physical activities.
- knowledge, skills and understanding of a range of relevant physical activities.
- an understanding of effective and safe performance.
- an understanding of the role of sport and physical activity in society and in the wider world.
- an excellent foundation for advanced study.
- an enjoyment of physical activity.

## Methods of Assessment

There are two components. Candidates receive grades from A to G.

- **Theory Component : 1 Paper 1¾ hours**

This is a structured paper with short and long answer questions from three topics; *Factors affecting performance, Health, safety and training, Reasons and opportunities for participation in physical activity* (50% of total marks).

- **Practical Component**

Candidates choose to undertake four practical activities from at least two of seven categories listed (50% of total marks).

## Special Equipment and Cost

Students will be required to purchase a text book, workbook, notebooks and PE Gear.

## Continuation of subject at School

Cambridge AS PE

## Reference Person

Callum Mather (callum.mather@hc.school.nz)



# Physics (IGCSE)

## Pre-requisites

None

## Description/Aims

Cambridge IGCSE Sciences are accepted by universities and employers as proof of real ability and knowledge.

As well as a subject focus, the different syllabuses enable:

- an understanding of how scientific theories and methods have developed, and continue to develop, as a result of groups and individuals working together
- knowledge that science overcomes national boundaries and that the language of science, used correctly and thoroughly, is universal
- an understanding of the importance of safe practice
- improved awareness of the importance of objectivity, integrity, enquiry, initiative and inventiveness
- better understand the technological world, with an informed interest in scientific matters
- recognise the usefulness (and limitations) of scientific method, and how to apply this to other disciplines and in everyday life
- develop relevant attitudes, such as a concern for accuracy and precision, objectivity, integrity, enquiry, initiative and inventiveness
- further interest in, and care for, the environment
- learn how science is studied and practised, and become aware that the results of scientific research can have both good and bad effects
- better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community and the environment
- develop an understanding of the scientific skills essential for both further study at Cambridge International A Level and in everyday life.

## Methods of Assessment

- **Paper 1** 45 minutes

A multiple-choice paper based on the Core curriculum and will be of a difficulty appropriate to grades C to G weighted at 30% of total available marks

Or

- **Paper 2**, also multiple choice, but aimed at the Extended Syllabus weighted at 30% of total available marks.

Then either

- **Paper 3** 1 hour 15 minutes (aimed at grades C to G)

Written paper consisting of 80 marks of short answer and structured questions weighted at 50% of total available marks

Or

- **Paper 4** 1 hour 15 minutes (aimed at higher grades)

Written paper consisting of 80 marks of short answer and structured questions, at least a quarter of the marks available will be based on Core material and the remainder on the supplement weighted at 50% of total available marks.

Then all take

- **Paper 6** 1 hour Alternative to Practical written paper designed to test familiarity with laboratory based procedures weighted at 20% of total available marks

## Special Equipment and Cost

Students will be charged for worksheets and past paper revision sheets.

## Continuation of subject at School

Cambridge AS level physics and thereafter Cambridge A2 Level physics

**Reference Person** Guy Ocle-Brown (guy.brown@hc.school.nz)



## **AS – Advanced Subsidiary (Year 12)**

In Year 12 students normally study 4 AS level subjects, one of which **must** be AS English Literature or English NCEA. It is common for Year 13s to include AS subjects in their choices.

All AS subjects are completed in one year. The examinations are held in October / November. In Year 13, students have the option, if successful at AS level, of continuing their studies at A2 level.

- ❖ English is compulsory and students should select 3 option subjects for a total of 4 subjects.
- ❖ If a student wishes to choose to study more than 4 AS subjects you must contact Mr Ackers to discuss this before choosing.

## **A2 - Advanced Level (Year 13)**

- ❖ A2 is second half of the full A level with the first half being the AS level.
- ❖ It is not possible to take an A2 course in a subject without successfully completing the AS course.
- ❖ Students at Year 13 may choose 3 A2 courses or a combination of A2 and AS courses.

### **Pre-Requisites for AS level courses**

In order to study some AS level subjects students will be required to achieve a pre-requisite standard at IGCSE level. For more information on individual subject pre-requisites refer to the subject details in this booklet. The nature of the AS/A2 programme allows flexibility over the two years for students to study a variety of AS and A2 level combinations and where appropriate, Year 12 and 13 students may supplement their programme of study by choosing IGCSE subjects that complement their timetable and may also select to study a variety of different AS subjects rather than doing the full A level.

## University Entrance

Students who successfully pass their AS and A2 level courses achieve points, these points then allow the student to access university courses.

Points are allocated as follows

Percentage Range	AS Level		A2 Level	
	Grade	Points	Grade	Points
90-100	A	60	A*	140
80-90	A	60	A	120
70-79	B	50	B	100
60-69	C	40	C	80
50-59	D	30	D	60
40-49	E	20	E	40

For open entry university courses, students are required to obtain a minimum of 120 points. However, in recent year some university courses have specified 140 points. Minimum entry must be achieved with a **minimum of 3 D grades**. Limited entry courses such as Medicine and Engineering have higher entrance criteria. These are University specific. It is imperative that students see University websites or Mr Pera for exact details.

There are an increasing number of degrees requiring specific subjects to be studied in order to guarantee entry. The need to check the implications of subject choices is increasingly important.

Also, the minimum literacy requirement for entry to a New Zealand university is an E in AS English. The minimum numeracy requirement is a D in IGCSE Mathematics.

Some courses may require specific subjects from the following table. For instance to enter a BCom at Auckland University a student will require 3 subjects from Table A and/or Table B

Table A subjects	Table B subjects
Classical Studies	Accounting
English	Biology
Geography	Business Studies
History	Chemistry
History of Art	Economics
	Mathematics
	Physics

For more information about UCAS point and entrance to University go to the ACSNZ website <http://www.acsnz.org.nz/universityentrance.cfm> or visit the relevant University website.

For up-to-date careers and tertiary course information visit

- Career Service site - [www.careers.govt.nz](http://www.careers.govt.nz)
- For Australian Universities – [www.curriculum.edu.au/ozjacweb/](http://www.curriculum.edu.au/ozjacweb/)
- For UK Universities – [www.educationuk.org](http://www.educationuk.org)
- For USA Universities – [www.EducationUSA.state.gov](http://www.EducationUSA.state.gov) and [www.collegeboard.org](http://www.collegeboard.org)
- For access to any university in the world – [www.braintrack.com](http://www.braintrack.com)
- UCAS site – [www.ucas.com.uk](http://www.ucas.com.uk)

## **Art & Design: Painting (AS Level)**

### **Pre-requisites**

Students should have studied and passed Art & Design at IGCSE level. Others may be accepted with HOD approval.

### **Recommended achievement levels:**

- Students who have achieved over 65% in Year 11 Art have an appropriate achievement level to study Year 12 Painting.
- Students who have achieved between 50-64% in Year 11 Art may find Year 12 Painting difficult.
- Students who have achieved less than 50% in Year 11 Art are not recommended to take Year 12 Painting.

### **Description/Aims**

The AS Level course in Art and Design at Huanui deals with the practices and procedures that underline the making of artworks. The development of a wide range of drawing skills is essential. Each student selects a theme of subject in consultation with the Art department staff. The theme is developed using artistic models and a range of media throughout the year. There is a strong emphasis on the development of a personal approach and style in painting.

### **Course Outline**

The year follows a process that includes:

- Selection of an artistic problem.
- Research and influences from other artists.
- Presentation of some ideas and individual responses to an artistic problem.
- Clarification of one idea.
- Two completed folios of artworks – approximately 8 x A1 size boards of work

Coursework Folio: Term 1 & 2  
Examination Folio: Term 3 & 4

### **Methods of Assessment**

Coursework Folio - 40% of your mark is awarded for coursework which is internally assessed and moderated externally at the completion of the year.

Examination Folio - 60% of your marks will come from a body of work plus the 15 hours controlled test (examination), which is externally assessed at the end of the year.

### **Special Equipment and Cost**

- Art Materials
- There will be opportunities for students to go on exhibition visits (to Auckland and Whangarei Art Galleries) throughout the course.
- Cost of materials and postage of folios to Cambridge, UK

### **Continuation of subject at School**

Students can go on to study A2 Art and Design and Visual Arts at Tertiary level.

**Reference Person** Ashlee Rouse ( ash.rouse@hc.school.nz)

## **Biology (AS Level)**

### **Pre-requisites**

Students should have achieved a B grade or higher in IGCSE Biology or have permission from the Head of Department.

### **Description/Aims**

The main aim of A Level Biology is to stimulate students' interest in, and enjoyment of, the Biological Sciences, while enabling them to acquire a basis for further study and employment. There is however a large body of knowledge to acquire as well as a rigorous scientific approach to follow and students must therefore be both perceptive and persevering.

### **Course outline**

AS Level candidates will study and be assessed on the first eleven sections, A to K.

1. Cell Structure
2. Biological Molecules
3. Enzymes
4. Cell Membranes and Transport
5. The Mitotic Cell Cycle
6. Genetic Control
7. Transport in Plants, Nucleic Acids and Protein Synthesis
8. Transport in Mammals
9. Gas Exchange and Smoking
10. Infectious Diseases
11. Immunity

### **Methods of Assessment**

Written Examinations each year + Practical Examination

### **Special Equipment and Cost**

- There may be a field trip in each year to Rotoroa Island or Tawharanui in Term 1 (Ecology, Biodiversity and Conservation) but costs will be kept to a minimum (camping etc).
- There are likely to be day trips to access apparatus and experiments that cannot be accessed within school, such as Biotechnology.
- Printing of Exam Questions throughout the year

### **Continuation of Subject**

Students can go on to study Biology at Cambridge A Level at Huanui College.

### **Reference Person**

Stephen Towey (stephen.towey@hc.school.nz)

## **Biology (A2 Level)**

### **Pre-requisites**

Students should have achieved a C grade or higher in AS Biology or have permission from the Head of Department.

### **Description/Aims**

The main aim of A Level Biology is to stimulate students' interest in, and enjoyment of, the Biological Sciences, while enabling them to acquire a basis for further study and employment. There is however a large body of knowledge to acquire as well as a rigorous scientific approach to follow and students must therefore be both perceptive and persevering.

### **Course outline**

A2 Level candidates will study and be assessed on the following topics

12. Energy and Respiration
13. Photosynthesis
14. Homeostasis
15. Coordination
16. Inherited Change
17. Selection and Evolution
18. Transport in Plants, Nucleic Acids and Protein Synthesis
19. Genetic Technology

### **Methods of Assessment**

Written Examinations each year, based on knowledge from both the AS and A2 courses.

### **Special Equipment and Cost**

- There may be a field trip in each year to Rotoroa Island in Term 1 (Ecology, Biodiversity and Conservation) but costs will be kept to a minimum (camping etc).
- There are likely to be day trips to access apparatus and experiments that cannot be accessed within school, such as Biotechnology.
- Printing of exam based questions

### **Continuation of Subject**

An A level in Biology provides for a wide range of career choices within science, industry or commerce including veterinary sciences, marine biology, ecology, nursing, biochemistry, research biology, forensic science, pharmaceutical industries, physical education, product testing, health and medicine, biotechnology, wine making.

### **Reference Person**

Stephen Towey (Stephen.towey@hc.school.nz)

# **Business (AS Level)**

## **Pre-requisites**

IGCSE Business Studies is considered an advantage to students who wish to study this subject. Good English Language skills are a pre-requisite.

## **Description/Aims**

Cambridge International AS and A Level Business Studies are accepted by universities and employers as proof of essential knowledge and ability. The Business Studies syllabus enables candidates to understand and appreciate the nature and scope of business, and the role business plays in society. The syllabus covers economic, environmental, ethical, governmental, legal, social and technological issues, and encourages a critical understanding of organisations, the markets they serve and the process of adding value. Candidates examine the management of organisations and, in particular, the process of decision-making in the context of a dynamic external environment.

## **Course outline**

- Business and its environment
- People in organisations
- Marketing
- Operations and project management
- Finance and accounting
- Strategic management

## **Methods of Assessment**

**Paper 1** (Based on Core topics) 1 hour 15 mins

Section A: 4 short answer questions (20% of total mark)

Section B: Essay on Core curriculum (1 from a choice of 3 questions) (20% of total mark)

**Paper 2** (Based on Core topics) 1 hour 30 mins

2 data response questions 60%

## **Special Equipment and Cost**

Students will be required to purchase a text book, workbook and notebooks. The costs of possible field trips will vary according to the nature of the excursion.

## **Continuation of subject at School**

Business Studies A2 Level

## **Career Opportunities**

Business Studies can feed comfortably into a variety of business degree specialisations such as Management Studies, Marketing and Finance, and lead to successful careers in financial management, human resources management, information systems marketing and product management.

## **Reference Person**

Mrs Amanda Gurr (amanda.gurr@hc.school.nz)

# Business (A2 Level)

## Pre-requisites

- Students who gain an A grade, and down to a good D grade, in AS Business will be admitted to this course.
- Students who gain a low D grade in AS Business, must consult with management to gain entry to this course.
- Students who gain an E grade or ungraded result in AS Business will NOT be able to enter this course.

## Description/Aims

Cambridge International AS and A Level Business are accepted by universities and employers as proof of essential knowledge and ability. The Business syllabus enables candidates to understand and appreciate the nature and scope of business, and the role business plays in society. The syllabus covers economic, environmental, ethical, governmental, legal, social and technological issues, and encourages a critical understanding of organisations, the markets they serve and the process of adding value. Candidates examine the management of organisations and, in particular, the process of decision-making in the context of a dynamic external environment.

## Course outline

- Business and its environment
- People in organisations
- Marketing
- Operations and project management
- Finance and accounting
- Strategic management

Analytical skills become increasingly more important in the A2 course and marks are awarded for the candidate's abilities to discuss, evaluate and synthesise the core topics developed in AS Level Business.

Although the cases used in the exam will be fictitious, the increasing use of Business case study examples will try to instil in the student the need to discuss a business problem in an integrated manner. Students will be encouraged to discuss and formulate their own ideas and try to come to the conclusion that there are no perfect answers. This approach will be very useful for students to enable them to confront the additional exam assessment mechanisms for the A2 course.

## Methods of Assessment

**Paper 1** (Based on Core topics) 1 hour 15 mins

Section A: 4 short answer questions (10% of total mark)

Section B: Essay on Core curriculum (1 from a choice of 3 questions) (10% of total mark)

**Paper 2** (Based on Core topics) 1 hour 30 mins

2 data response questions 30%

**Paper 3** (Based on Core + Extension topics) 3 hours

Case study: 5 questions + 1 essay (from a choice of 2) – 50%

## Special Equipment and Cost

Students will be required to purchase a text book, workbook and notebooks. The costs of field trips will vary according to the nature of the excursion. A calculator will also be required.

## Career Opportunities

Business Studies can feed comfortably into a variety of business degree specialisations such as Management Studies, Marketing and Finance, and lead to successful careers in financial management, human resources management, information systems marketing and product management.

## Reference Person

Mrs Amanda Gurr (Amanda.gurr@hc.school.nz)

## **Chemistry (AS Level)**

### **Pre-requisites**

Students should have achieved a B grade or higher in IGCSE Chemistry or have permission from the Head of Department.

### **Description/Aims**

The importance of Chemistry cannot be overestimated in today's world, and it has often been described as the central science. Indeed, there are very many opportunities in the world of industry, commerce, or education for people with a Chemistry qualification. The course develops at greater depth some of the topics which have been touched upon only superficially in the IGCSE course. Most students find this both challenging and stimulating, and derive much benefit from the intellectual demands made on them in developing their powers of thought.

### **Course outline**

- Students will study
- Atoms Molecules and Stoichiometry
- Atomic Structure
- Chemical Bonding
- States of Matter
- Chemical Energetics
- Redox Chemistry
- Equilibria
- Rates of Reaction
- Periodicity (especially Groups , 2, 7
- Basic Organics up to Carboxylic Acids, and Addition Polymers

### **Methods of Assessment**

Multiple Choice, Written Paper + Practical Exam

### **Special Equipment and Costs.**

- Workbooks
- Homework Books
- Exam Papers as Required

### **Continuation of subject at School**

Students can go on to study Chemistry at Cambridge A Level at Huanui College.

**Reference Person** Fiona Boorer (Fiona.boorer@hc.school.nz)



## **Chemistry (A2 Level)**

### **Pre-requisites**

Students should have achieved a C grade or higher in AS Chemistry or have permission from the Head of Department.

### **Description/Aims**

The importance of Chemistry cannot be overestimated in today's world, and it has often been described as the central science. Indeed, there are very many opportunities in the world of industry, commerce, or education for people with a Chemistry qualification. The course develops at greater depth some of the topics which have been touched upon only superficially in the IGCSE course. Most students find this both challenging and stimulating, and derive much benefit from the intellectual demands made on them in developing their powers of thought.

### **Course outline**

- Further Energetics
- Electrode Potentials
- Quantitative pH calculations
- Quantitative Rates
- Periodicity (especially Transition)
- Further Organics including Aromatics, Acyl Chlorides and Condensation Polymers
- Biological Molecules
- Analytical Chemistry (including spectroscopy)

### **Methods of Assessment**

Written paper and Planning Analysis and Evaluation paper.

### **Special Equipment and Costs**

- Workbooks
- Homework Boks
- Exam Papers as Required

### **Continuation of subject**

An A level in Chemistry provides for a wide range of career choices within science, industry or commerce including veterinary sciences, research chemistry, forensic science, pharmaceutical industries, product testing, health and medicine.

**Reference Person** Fiona Boorer (Fiona.boorer@hc.school.nz)

## Computing (AS and A2 Level)

### Pre-requisites

None for AS

A2 Computing requires at least a D grade in AS Computing

### Description/Aims

Through the study of these subjects students will grow in their awareness of how computers work at the hardware level, the creation of software and how the two can work together. Students find their developing skills will prepare them for future employment or tertiary studies. The practical topics focus on understanding the basics of computer application programming: variables, sequence, iterative, selection, and functions. The A2 focus is on deepening the awareness around the hardware, software and working with databases, including SQL.

### Course outline

The AS curriculum is split between one theory and one practical unit; both modules have a written end of year examination. The A2 Level curriculum has an addition two papers, one theoretical and one practical; all four papers are written and externally assessed.

### Methods of Assessment for Students taking AS Computing in 2018

Paper	Focus	Length	Marks	Weighting	
				AS	A Level
One	Theory	1 ½ hours	75 marks	50%	25%
Two	Practical	2 hours	75 marks	50%	25%
Three	Theory	1 ½ hours	75 marks		25%
Four	Practical	2 hours	75 marks		25%

### Special Equipment and Cost

Students must have their own laptops with Python 3.6 (<https://www.python.org/downloads/release/python-360/>), Microsoft Access ([bit.ly/hcfreeoffice](http://bit.ly/hcfreeoffice)) and DB Browser for SQLite (<http://sqlitebrowser.org>) installed prior to the beginning of Term 1.

### Course outline

#### AS Level

Paper 1 Theory Fundamentals

Paper 2 Fundamental Problem-solving and Programming

#### A2 Level

Paper 3 Advanced Theory

Paper 4 Further Problem-solving and Programming Skills

**Reference Person** Peter Ackers (peter.ackers@hc.school.nz)

# **Design and Technology (Graphics) (AS Level)**

## **Pre-requisites**

Students must achieve a C grade or better at IGCSE Graphics Design Technology.

## **Description/Aims**

- Develop and sustain their own innovation, creativity and design and technology capability, to recognize constraints and to produce high quality products.
- Develop an awareness of the significance of design and technology upon society.
- Apply essential knowledge, understanding and skills of design production processes to a range of technological activities and develop an understanding of industrial practices.
- Use ICT as appropriate, to enhance their design and technology capability.
- Develop critical evaluation skills in technical, aesthetic, economic, environmental, social and cultural contexts.
- Develop as discerning customers able to make informed choices.
- Develop positive attitudes of co-operation and citizenship and work collaboratively.
- To enable CIE candidates to continue with the subject.

## **Course outline**

The course will be based around two components. The first component is made up of knowledge based teaching and learning. The second component is a coursework project which involves an individual design problem and production of a design model.

## **Methods of Assessment**

Pupils will be assessed both by an end of year examination (60%) and a major design based project (40%). The project will be based upon a self-determined design problem and will result in the production of a design model. The design brief will be negotiated by both the student and teacher to ensure suitability.

## **Special Equipment and Cost**

All students will require

- A3 Clear file folio to keep project work in
- The basic graphics kit (approximate cost \$45) or similar.
- Printing & modelling costs \$40

## **Continuation of subject at School**

A2 Level Design and Technology Graphic products

## **Reference Person**

Sharon Cole (Sharon.cole@hc.school.nz)

## Design and Technology (Graphics) (A2 Level)

### Pre-requisites

Students must achieve a C grade or better at AS Design and Technology.

### Description/Aims

- Develop and sustain their own innovation, creativity and design and technology capability, to recognize constraints and to produce high quality products.
- Develop an awareness of the significance of design and technology upon society.
- Apply essential knowledge, understanding and skills of design production processes to a range of technological activities and develop an understanding of industrial practices.
- Use ICT as appropriate, to enhance their design and technology capability.
- Develop critical evaluation skills in technical, aesthetic, economic, environmental, social and cultural contexts.
- Develop as discerning consumers able to make informed choices.
- Develop positive attitudes of co-operation and citizenship and work collaboratively.
- To enable CIE candidates to continue with the subject.

### Methods of Assessment

Pupils will be assessed both by an end of year examination (30% of total marks) and the coursework project (20% of final marks). Any new design brief will be negotiated between the student and teacher to ensure suitability.

Assessment Objective	Component 3	Component 4	Overall
Knowledge & Understanding	15%	-	15%
Design analysis, idea generation and synthesis	15%	5%	20%
Practical implementation	-	15%	15%
Total	30%	20%	50%

### Special Equipment and Cost

Students will require

- A3 clear file folio to keep project work
- The basic graphics kit (approximate cost \$65) or top up only (\$20).
- Basic Printing & Modeling Costs \$40

### Assessment Objectives

Knowledge and understanding in relation to: The impact of design and technology on society and communication using a range of graphical techniques including conventions and specialist vocabulary.  
Design analysis, generation of ideas and synthesis: Create a brief able to analyse situations, produce specifications, consider aesthetic, technical and environmental factors. Generate and explore a range of conceptual ideas.

Practical Implementation: Students should plan, organise and undertake safely practical modelling. Demonstrate refined making skills, test and evaluate the product leading to proposals for improvement.

**Reference Person** Sharon Cole (Sharon.cole@hc.school.nz).

## English Literature (AS Level)

### Course pre-requisites

Students must achieve a D or better at IGCSE level

### Description/Aims

- Appreciation of, and informed personal response to, literature in English in a range of texts in different forms, and from different periods and cultures.
- The interdependent skills of reading, analysis and communication.
- Effective and appropriate communication.
- Wider reading and an understanding of how it may contribute to personal development.

### Course Outline

<b>Paper 3: Poetry and Prose</b> <ul style="list-style-type: none"><li>- Selected poems</li><li>- Novel</li></ul>	<b>Paper 4: Drama</b> <ul style="list-style-type: none"><li>- Shakespeare</li><li>- Non-Shakespeare</li></ul>
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### Methods of Assessment

Students sitting the AS course in 2018 sit two 2 hour examinations (one per paper) at the end of the year which form 100% of the total mark. Each paper is worth 50% of this total.

### Continuation of subject at School

Students go on to study English at Cambridge A2 Level in Year 13 at Huanui College.

## English Literature (A2 Level)

### Course pre-requisites

Students must achieve a D grade or better in AS English Literature

### Course Outline

<b>Paper 5:</b> Shakespeare and other pre-20th Century Texts. This paper is divided into: Section A: Shakespeare Section B: Other pre-20th century texts.	<b>Paper 6:</b> 20th Century Writing - Candidates answer one question on each of <b>two</b> different texts.
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### Methods of Assessment

Students sitting the A2 course in 2018 sit two 2 hour examinations (one per paper) at the end of the year which form 100% of the total mark.

For the Advanced (A) Level qualification, each paper is worth 25% of the total marks. This includes the marks gained for AS Papers 3 & 4.

### Special equipment and costs

At A2 level (Year 13) students may be required to purchase *some* of their own texts (from the list of four prescribed).

**Reference Person** Brenda Rudolph (Brenda.rudolph@hc.school.nz)

## English: NCEA Level 2

### Course Pre-requisites

Students will be selected for this course.

### Description/Aims

#### Students will learn to:

- analyse specified aspects of written/visual and oral texts through close reading of the text
- produce a selection of crafted and controlled writing
- analyse a specific scene of a visual text
- use information literacy skills to form developed conclusions

### Course Outline

AS 91098 Analyse specified aspects of studied written text(s), supported by evidence.	External 4 credits
AS 91099 Analyse specified aspects of studied visual text(s), supported by evidence.	External 4 credits
AS 91101 Produce a selection of crafted and controlled writing.	Internal 6 credits
AS 91107 Close viewing (of film)	Internal 3 credits
AS 91105 Use information literacy skills to form developed conclusion(s)	Internal 4 credits

### Methods of Assessment

Internal Assessment : Completed in Class (maximum of 13 credits)

External Assessment: Examination (maximum of 8 credits)

### Continuation of Subject At School

If a student requires further credits, these can be completed the following year.

**Reference Person** Brenda Rudolph (Brenda.rudolph@hc.school.nz)

## Geography (AS and A2 Level)

### Pre-requisites

C in IGCSE Geography or HOD Approval

### Description/Aims

Cambridge International AS & A2 Level Geography is a programme which provides students with a large number of key skills, which will support further study in any subject area. There is a strong emphasis on **Skills and Enquiry**, which students, particularly of scientific disciplines will find familiar and support their study. These include:

- a concern for accuracy and objectivity in collecting, recording, processing, analysing, interpreting and reporting data in a spatial context.
- the ability to handle and evaluate different types and sources of information.
- the skills to think logically, and to present an ordered and coherent argument in a variety of ways.
- an excellent foundation for studies beyond A Level in Geography, in further or higher education, and for professional courses.
- an awareness of the usefulness of geospatial and demographic analysis to understand and solve contemporary human and environmental problems.
- demonstrate skills of analysis and synthesis and assess methods of enquiry and consider the limitations of evidence.
- use geographical understanding to develop their own explanations and hypotheses.
- collect, record and interpret a variety of information from primary (fieldwork) sources and secondary sources (e.g. statistical data).

Students completing an AS or A2 in Geography will find their studies complimenting a broad range of pathways. Occupations or professions can also be broad and include scientific, military, primary industry, government and non-government organizations, financial, tourism and service sector occupations.

### Course outline

Geography at the AS Level seeks to provide students with a balanced foundation upon which advanced skills and understanding can be developed at A2. The syllabus is split between the Physical and Human aspects of Geography.

### Methods of Assessment

Students taking AS Geography in 2019 will sit two 1½ hour papers at the end of year, which form 100% of the total mark at AS Level. Students continuing on to A2 Geography carry forward their result from AS and only sit Paper 2 and Paper 3 in 2019 at A2 Level. The AS result from the previous year is combined with the results for Papers 2 and 3 to constitute the student's final A2 grade.

AS Geography Paper 1 – Core Physical Geography	1 ½ Hours
AS Geography Paper 2 – Core Human Geography	1 ½ Hours
100% of Total Marks at AS or 50% of Total Marks at A2	
A2 Geography Paper 3 – Advanced Physical Options	
25% of Total Marks at A2.	1 ½ Hours
A2 Geography Paper 4 – Advanced Human Options	
25% of Total Marks at A2.	1 ½ Hours

### Special Equipment and Costs

- Students will be required to purchase the latest edition of the core textbook 'Cambridge International A & AS Level Geography' by Garrett Nagle and Paul Guinness.

**Reference Person** Paul Clark (paul.clark@hc.school.nz)

## **Global Perspectives (AS Level)**

### **Pre-requisites**

There are no pre-requisites for this course.

### **Description/Aims**

Cambridge Global Perspectives is an innovative and stimulating skills-based programme that places academic study in a practical, real-world context. It provides students with the opportunity to cultivate the critical thinking, research, communication and collaboration skills needed to be successful at school and university as well as in their future careers.

The programme is designed to inspire learners to be curious, independent thinkers, ready to engage positively with the rapidly changing world around them.

### **Course outline**

- As this is a skills-based course, teaching and learning are likely to involve learners in researching current global affairs using a wide variety of media formats such as newspapers, websites, academic journal articles, podcasts and books. Having researched and identified relevant materials, learners engage with the issues they raise and interpret and evaluate the arguments through activities such as class discussions, role play, presentations and group-based tasks.
- The course is based on the premise that investigating global issues through a variety of different perspectives will help increase learner awareness of the world around them. The syllabus provides a wide array of global topics from which learners choose to study those most pertinent to their own interests and areas of expertise.

### **Methods of Assessment**

**AS LEVEL:** The Global Perspectives Course is assessed in three compulsory components: a written examination, an essay and a team project.

- The written examination is worth 30% and will be 1 hour 30 minutes.
- The essay is a 1750 to 2000 words piece of writing and will be worth 35%.
- The team project requires students to work out a team solution to a problem and prepare an 8 minute presentation about proposed solutions.
- Students will also be required to submit a reflective paper of 800 words. The team project is worth 35%.

### **Special Equipment and Costs**

To be advised.

**Reference Person** Paul Clark (paul.clark@hc.school.nz)



## History (AS and A2 Level)

### Pre-requisites

Students must achieve a D or better in IGCSE English or History, or HoD Approval

### Description/Aims

Cambridge International AS & A2 Level History is a programme which provides students with a large number of key skills, which will support further study in any subject area.

There is a strong emphasis on **Skills and Enquiry**, which students, particularly of humanities and literacy focused disciplines will find familiar and support their study. These include:

- An interest in the past and an appreciation of human endeavor
- A greater knowledge and understanding of historical periods or themes
- A greater awareness of historical concepts such as cause and effect, similarity and difference and change and continuity
- An appreciation of the nature and diversity of historical sources available, and the methods used by historians
- An exploration of a variety of approaches to different aspects of history and different interpretations of particular historical issues
- The ability to think independently and make informed judgments on issues.
- An empathy with people living in different places and at different times
- A firm foundation for further study of History and other literacy based subjects at tertiary level.

### Course outline

History at the AS/A2 Level seeks to provide students with a balanced foundation upon which further subject specific skills and understanding can be developed. Students at both AS and A2 level study a range of related but separate topics to prepare for their formal examinations.

### Methods of Assessment

Students taking AS History in 2019 will sit two separate examinations at the end of year (1 hour and 1 hour 30 minutes respectively) which forms 100% of the total mark at AS Level.

AS History Component 1 and 2	
<b>Component 1:</b> Document Question (40 marks) <b>Component 2:</b> Outline Study (60 marks)	
100% of Total Marks at AS 50% of Total Marks at A2.	Component 1: 1 hour Component 2: 1 ½ hours
A2 History Component 3 and 4	
<b>Component 3:</b> Document Question (40 marks) <b>Component 4:</b> Depth Study (60 marks)	
50% of Total Marks at A2 (The other maximum 50% carried forward from the previous year's AS results)	Component 3: 1 hour Component 4: 1 ½ hours

### Special Equipment and Costs

- Optional purchase of additional books around certain topics.
- Field trips may be added but only if applicable to the topics studied.

**Reference Person** Paul Clark (paul.clark@hc.school.nz)

## Spanish Language (AS Level)

### Pre-requisites:

Good pass at IGCSE Level. Minimum C pass or strong D will be allowed on agreement with HOD.

### Description/Aims

A Level aims to build on and further extend the topic knowledge and grammatical knowledge acquired at IGCSE Level. It also introduces the students to Spanish literary texts.

### Achievement Objectives

To understand and respond to texts written in the target language, drawn from a variety of sources such as magazines, newspapers, reports, books and other forms of extended writing. To manipulate the target language accurately in spoken and written forms to demonstrate a capacity to choose appropriate examples of lexis and structures. Also be able to select information and present it in the target language, to organise arguments and ideas logically.

### Methods of Assessment

Students must be aware that the quality and quantity of Spanish required from them in A-level is a significant increase from IGCSE Spanish. When sitting the CIE examinations, students will notice that **all instructions, questions, writing and speaking prompts are all in Spanish.**

The CIE examination for AS Spanish is in October/November. The speaking exam is internally assessed and will take place early in Term Four. There are 3 papers in total:

### AS Assessments:

Component	Title	Weight	Length
1	Speaking	29%	25 mins
2	Reading/Writing	50%	1 hr 45 mins
3	Essay	21%	1 hr 30 mins

### Assessment Objectives

The examinations at the advanced level will assess the candidates' linguistic competence and their knowledge of contemporary society by requiring them to:  
understand and respond to text written in the target language, drawn from a variety of sources such as magazines, newspapers, reports, books, and other forms of extended writing.

### Special Equipment and Cost

To undertake the AS course (in 2019) – There are no required textbooks for this level of Spanish, however, students are advised to bring along a folder to store the variety of handouts and come prepared to participate in a thoughtful manner.

### Continuation of subject

Students who successfully complete the AS/A2 Level Spanish course will find it is an ideal foundation for further study at university level and can increase career prospects.

**Reference Person** Terese Storey (terese.storey@hc.school.nz)

## **Spanish Literature (A2 Level)**

### **Pre-requisites:**

Good pass at AS Level. Minimum 'C' pass or strong 'D' will be allowed on agreement with HOD.

### **Description/Aims**

A Level aims to introduce the students to Spanish literary texts.

### **Methods of Assessment**

The CIE examination for A2 Spanish is in October/November.

- Spanish Literature (100%)

### **Special Equipment and Cost**

- You will be advised on what texts will need to be purchased

### **Assessment Objectives**

The examination at the advance level will assess the candidates' linguistic competence and their knowledge of Hispanic society and culture drawn from the novels studied during the year. Students will demonstrate their understanding of the narratives and respond to the texts written in the target language. Candidates will answer three essay questions in Spanish. Each question must be about a different text, taken from the list above.

### **Continuation of subject**

Students who successfully complete the A Level Spanish course will find it is an ideal foundation for further study at university level and can increase career prospects.

**Reference Person** Terese Storey (terese.storey@hc.school.nz)

# **Marine Science (AS Level)**

## **Pre-requisites**

A good foundation for the course would be a combination of some, but not necessarily all of the following at IGCSE: Biology, Geography, Combined Science, Physics, Chemistry.

## **Description/Aims**

- Marine Science is part of the CIE Suite of Science Courses. It will sit alongside other Science AS Levels or on its own.
- It is ideal as preparation for a study of Marine Studies, Environmental Science, Geography or Conservation at Tertiary level, or for any Science Course where a detailed knowledge of the workings of Plants and/or Animals is not needed. Thus, it is a mixture of the disciplines of Marine Biology and Oceanography.
- Candidates do not need to have studied Marine Science before taking this course. The course is designed to attract candidates with a good scientific background along with awareness of broad environmental matters.
- Candidates will study local marine environments and carry out fieldwork during the course.

## **Course Outline**

The content of this syllabus is designed to encourage a broad, thought provoking study of the marine environment. Students can go on to study the subjects at A2 level.

- It includes sections on:

- 1 Scientific method
- 2 Marine ecosystems and biodiversity
- 3 Energetics of marine ecosystems
- 4 Nutrient cycles in marine ecosystems
- 5 Coral reefs and lagoons
- 6 The ocean floor and the coast
- 7 Physical and chemical oceanography

## **Methods of Assessment**

### **Paper 1**

Structured questions on AS topics – 60%

These will be based directly on the information learnt during the course

### **Paper2**

Data-handling questions 40%

Data may be provided in written, numerical, diagrammatic or graphical forms, or a mixture of these.

The paper contains two free-response questions, in which candidates will be required to demonstrate that they can handle data from new and unfamiliar topics using the methodologies learnt during the course.

## **Special Equipment and Cost**

Workbooks may have to be purchased from the College. Field trips costs will be additional extras.

## **Continuation at School**

This course will prepare students for the International Cambridge Examination offered in Year 13 at A2 Level.

**Reference Person** Fiona Boorer (Fiona.boorer@hc.school.nz)

# Marine Science (A2 Level)

## Pre-requisites

AS Level Marine Science

## Description/Aims

- Marine Science is part of the CIE Suite of Science Courses. It will sit alongside other Science A2 Levels or on its own.
- It is ideal as preparation for a study of Marine Studies, Environmental Science, Geography or Conservation at Tertiary level, or for any Science Course where a detailed knowledge of the workings of Plants and/or Animals is not needed. Thus, it is a mixture of the disciplines of Marine Biology and Oceanography.
- The course is designed to attract candidates with a good scientific background along with awareness of broad environmental matters.
- Candidates will study local marine environments and carry out fieldwork during the course.

## Course Outline

The content of this syllabus is designed to encourage a broad, thought provoking study of the marine environment. The emphasis is on Human Interactions with this environment.

8 Physiology of marine primary producers

9 Aspects of marine animal physiology

10 Marine animal reproductive behaviour

11 Fisheries management

12 Aquaculture

13 Human impact on marine ecosystems

14 Marine conservation and ecotourism

15 Marine biotechnology

## Methods of Assessment

### Paper 3

Structured questions on A2 topics – 60%

These will be based directly on the information learnt during the course

### Paper 4

Data-handling questions 40%

Data may be provided in written, numerical, diagrammatic or graphical forms, or a mixture of these.

The paper contains two free-response questions, in which candidates will be required to demonstrate that they can handle data from new and unfamiliar topics using the methodologies learnt during the course.

## Special Equipment and Cost

Workbooks will have to be purchased from the College. Field trips costs will be additional extras.

**Reference Person** Fiona Boorer (Fiona.boorer@hc.school.nz)

# Mathematics (AS Level)

## Pre-requisites

Students should have gained:

- an overall grade B or better in IGCSE Extension Mathematics Examination.

Note:

- Students with a grade A or B in Year 11 IGCSE Mathematics Extension have an appropriate achievement level to study Year 12 Cambridge AS Level.
- Students with a C grade in Year 11 IGCSE Mathematics Extension maybe considered but will find aspects of Year 12 AS Mathematics very difficult.
- Students with a grade D or lower in Year 11 IGCSE Mathematics Extension do not meet the pre-requisite.

## Description/Aims

The aim of this course is to introduce and develop basic mathematical skills, concepts, and understandings in the Number, Statistics, Algebra, Space, Shape and Measure strands. This course will cover all aspects of the Cambridge AS course and will serve as an introduction to A2 Pure Mathematics or Statistics Courses.

## Course Outline

An outline of the syllabus is as follows:

Algebra - *surds, indices, quadratic equations, functions and notation, binomial expansion*

Space, Shape and Measure – *trigonometry (radians, identities and equations), graphs, vectors*

Statistics & Probability – *data display and graphs, arrangements (permutations and combinations), random variables, normal distribution, binomial distribution*

Calculus – *differentiation, integration*

Sequences and Series & Co-ordinate Geometry

Note: A Year Plan will be issued to the student in Week 1

## Methods of Assessment

### Internal

There will be on-going evaluation of ability and application of the concepts being taught. Assessment is based on tests, Mid & End-of-Year Examinations.

### External

Candidates who have followed the **AS Level Mathematics** Curriculum will sit two External Examinations in October/November:

AS Mathematics Paper P1 9709/13 (1 hour 45 minutes)

AS Mathematics Paper S1 9709/63 (1 hour 15 minutes)

## Special Equipment and Cost

Protractor, compass, ruler and a scientific calculator FX-82 required. (Casio FX 991ES is highly recommended)

Cost: Includes workbooks, FX991ES calculator and past exam paper booklet

## Continuation at School

This course will prepare students for the International Cambridge Examination offered in Year 13 at A2 Level.

**Reference Person** Vicki Haverkort (vicki.haverkort@hc.school.nz)

## **Mathematics (A2 Level)**

### **Pre-requisites**

Students must have gained passes in AS – Pure Mathematics 1 and AS – Statistics 1.

- Students with A or B from AS Mathematics have an appropriate achievement level to continue for a full A level qualification doing the Pure Mathematics (P3) and Statistics (S2) course.
- Students with C or D grades from AS Mathematics may find aspects of Pure Mathematics (P3) and Statistics (S2) course difficult.
- Students with a grade lower than a D should consider repeating AS or opting for another subject.

### **Description/Aims**

The aim of this course is to introduce and develop a range of mathematical skills, particularly mathematics in context; to develop an understanding of mathematical principles in the area of Number, Statistics, Algebra, Space, Shape and Measure strands.

Course P3 and S2 covers all aspects of the Cambridge A2 course in Pure Mathematics and Statistics.

### **Course Outline**

An outline of the P3/S2 course is as follows:

Algebra, Trigonometry, Calculus, Vectors, Complex Numbers, Numerical Methods, Differential Equations, Random Variables, Distributions, Sampling, Estimation and Hypothesis Testing.

Note: A Year Plan will be issued to the student in Week 1

### **Methods of Assessment (for both courses)**

#### **Internal**

There will be on-going evaluation of ability and application of the concepts being taught. Assessment is based on tests, Mid & End-of-Year Examinations.

#### **External**

Candidates who have followed the **A2 Level Mathematics** curriculum will sit two External Examinations in October/November:

A2 Mathematics Paper P3 9709/33 (1 hour 45 minutes)

A2 Mathematics Paper S2 9709/73 (1 hour 15 minutes)

### **Special Equipment and Costs**

Protractor, compass, ruler, and a scientific calculator FX-82. (Casio FX 991ES is highly recommended)

Cost: Include textbooks and past exam paper booklet.

**Reference Person** Vicki Haverkort (vicki.haverkort@hc.school.nz)

## Physical Education (AS Level)

### Pre-requisites

IGCSE Physical Education recommended, but not necessary.  
Grades available: A - E

### Course Aims

Students develop an understanding about APPLIED ANATOMY AND PHYSIOLOGY

- The skeletal system
- Muscles
- Heart and Vascular Systems
- Respiratory System

ACQUIRING, DEVELOPING AND PERFORMING MOVEMENT SKILLS

Definition and characteristics of motor and perceptual skill

- Theories related to the learning of Motor Skills
- Theory of information processing

CONTEMPORARY STUDIES IN PHYSICAL EDUCATION

- The conceptual basis of Physical Education and Sport
- Achieving Excellence in Sport
- Mass participation in Sport
- Factors affecting participation
- Sporting issues
- Practical units: 2 sports that you particularly excel at that are supported by CIE.

### Methods of Assessment:

Title	Weight	Duration	Coursework
2 Practicals	10% each		Based on contemporary studies in PE
Analysis and comment	10%		
Examination	70%	3 hours	

### Reference Person

Callum Mather (callum.mather@hc.school.nz)



## Physical Education (A2 Level)

### Pre-requisites

AS Physical Education Grade A-C.

Grades available: A – U

The Cambridge International AS Level forms 50% of the assessment weighting of the full Advanced Level GCE.

### Course Aims

Students develop an understanding about

#### EXERCISE AND SPORTS PHYSIOLOGY

- Energy Concepts
- ATP
- Exercise Recovery
- Principles of Training
- Fitness Components

#### PSYCHOLOGY OF SPORTS PERFORMANCE SKILLS

- Individual aspects of sports performance
- Group dynamics
- Mental preparation

#### OLYMPIC GAMES : A GLOBAL PERSPECTIVE

- Ancient Olympic Games
- The Role of the IOC
- Politics and Sport
- Economics and Commercialism
  
- Practical units: 2 sports that you particularly excel at that are supported by CIE.

### Methods of Assessment:

Title	Weight	Duration	Coursework
2 Practicals	10% each		Based on contemporary studies in PE
Analysis of Performance	10%		
Examination	70%	2.5 hrs	

### Reference Person

Callum Mather (callum.mather@hc.school.nz)

## Physics (AS Level)

### Pre-requisites

Students should have achieved a B grade or higher in IGCSE Physics or have permission from the Head of Department.

### Description/Aims

Cambridge International AS and A Level Physics qualifications are accepted by universities and employers as proof of essential knowledge and ability.

This syllabus is designed:

- to give a thorough introduction to the study of Physics and scientific methods
- to develop skills and abilities that are relevant to the safe practice of science and to everyday life:
- concern for accuracy and precision, objectivity, integrity, the skills of enquiry, initiative and inventiveness
- to emphasise the understanding and application of scientific concepts and principles, rather than the recall of factual material
- to enable candidates to become confident citizens in a technological world and to take an informed interest in matters of scientific importance
- to promote the use of IT as an aid to experiments and as a tool for the interpretation of experimental and theoretical results

### Course outline

- Physical Quantities, Units and Measurement.
- Kinematics
- Dynamics
- Forces, Density and Pressure
- Work, Energy and Power
- Deformation of Solids
- Wave Motion and Superposition
- Current Electricity and DC Circuits
- Particle Physics

### Practicals

Throughout the teaching of each unit, the role of practical work is of paramount importance. Not only does it enable students to develop experimental skills but also it assists with the understanding of theoretical concepts. Demonstrations of experimental procedures and the use of various types of models are an integral part of the teaching process.

### Methods of Assessment

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice	1 hour	40	31%
2	AS Structured Questions	1 hour	60	46%
3	Advanced Practical Skills 1/2	2 hours	40	23%

### Special Equipment and Cost

- Cambridge IAS/A level Physics Course book” by David Sang
- AS Physics Google site ; <https://sites.google.com/a/hc.school.nz/as-physics/>
- Ring binder folder and subject dividers ,
- A4 clear file.

**Reference Person** Mr Guy Oclee-Brown (guy.brown@hc.school.nz)

# Physics (A2 Level)

## Pre-requisites

Students should have achieved a C grade or higher in AS Physics or have permission from the Teacher in charge

## Description/Aims

The course provides a sound foundation for further study and encourages students to develop essential knowledge and understanding of the concepts of physics, and understanding of how science works, an awareness of advances in technology, a recognition of the value of physics in society and reflects new and exciting modern developments in physics. Students carry out experimental and investigative activities in order to develop their practical skills.

## Course outline

### I General Physics

- Physical quantities and units
- Measurement techniques

### II Newtonian mechanics

- Motion in a circle
- Gravitational field

### III Matter

- Ideal gases
- Temperature
- Thermal properties of materials

### IV Oscillations and waves

- Waves
- Oscillations
- Communication

### V Electricity and magnetism

- Electric fields
- Capacitance
- Magnetic fields
- Electromagnetism
- Electromagnetic induction
- Alternating currents
- Current Electricity
- DC Circuits
- Electronics

### VI Modern Physics

- Charged particles
- Quantum physics
- Nuclear physics

## Methods of Assessment

Written Examinations each year + Planning Analysis and Evaluation paper.

## Special Equipment and Cost

Textbook required.

**Reference Person** Guy Ocle- Brown (guy.brown@hc.school.nz)

# Psychology (AS Level)

## Pre-requisites

None.

## Description/Aims

The main aim of the course is to encourage an interest in and appreciation of Psychology through an exploration of the ways in which Psychology is conducted.

- This includes a review of a number of important research studies
- An opportunity to look at the ways in which Psychology can be applied.

## Course outline

AS Level candidates will study and be assessed on 5 Key concepts

**20.**Nature versus Nurture

**21.**Ethics in Psychological Research

**22.**Choice of Psychological research Methods

**23.**No one view in Psychology is definitive.

**24.**Relevance of Psychology in Contemporary Society

These Key concepts are explored through the study of 12 Core studies, and extensive exploration of research methods used in Psychology.

## Methods of Assessment

The course is assessed through two written papers, each lasting 90 minutes.

Paper 1 is comprised of Short questions and an essay question, based entirely on the core studies. (60 Marks)

Paper 2 is comprised of three sections:

Section A: Short Answers, some based on core studies, (22 marks)

Section B: Scenario-based questions (24 marks)

Section C: A design based question divided into two parts (14 Marks)

## Special Equipment and Cost

- There will be hopefully a field trip, likely visiting Auckland University Psychology department.
- Textbooks and Examination Questions
- Printing of coursework notes

## Reference Person

Stephen Towey (steve.towey@hc.school.nz)

## **Frequently Asked Questions**

Frequently asked questions about Cambridge International Examinations (CIE)

### **Why would students take CIE in preference to NCEA?**

Students can enter tertiary study from either CIE or NCEA. We have chosen to offer CIE because we believe our students will be better prepared when they enter tertiary study.

### **Are CIE examinations more difficult than NCEA?**

It is hard to compare the two systems as they use different means to assess students. However, it is important to remember that AS and A2 Level courses are 170-180 hours long, so more content is covered than in comparable NCEA courses (the latter being 120 hours long). This extra time will allow more content to be covered and this may make it appear that some CIE subjects are 'harder'.

### **At university, will CIE students have to repeat work done in Year 13 in CIE?**

In most subjects the material covered in the final year of school courses is not the same as the first year university courses. However, if there is clear evidence that a student has covered a course to a high level there are systems available to consider exemptions.

### **Are employers aware of the CIE system? Has it been well publicised to them?**

Considerable work has been done with universities to inform them about CIE, and work with employers is continuing.

### **Are there differences between CIE exams and the Cambridge exams sat in England?**

In many subjects the content is very similar and certainly the standards are almost identical. The content in mathematics and science is similar to that used in the UK. Some CIE subjects will not have as great an emphasis on New Zealand content. While this may be seen to be a disadvantage in some subjects, the wider international perspective of CIE can be seen as an advantage overall.

### **On what basis were CIE examinations created for countries outside the UK? Are they aimed at international schools for expatriates, ESOL students, or whom?**

CIE created examinations for students outside the UK in the 1880's as a response to requests from other English-speaking countries for qualifications that would enable them to attend Cambridge University. Later, as the University system grew in the UK, more countries took on these examinations and others began to use Cambridge as a benchmark for their own national systems. These international examinations were based on the same curricula and schemes of assessment as those used in the UK. This is mostly still the case, except that Cambridge has become more responsive to the fact that the students living outside the UK have different cultural backgrounds and sometimes different language skills. Cambridge examinations are not aimed at any one market. They are sufficiently broad in their compass to appeal to a number of users wishing to gain an internationally recognised qualification.

### **What are New Zealand based courses?**

The Association of Cambridge Schools in New Zealand (ACSNZ) has established several courses to provide for the special needs of New Zealand students and to maintain continuity with courses already accepted as part of the NZ curriculum. The syllabus and assessment standards have been carefully assessed by CIE and sample examination papers and model answers have been approved. Examinations are set and marked in NZ and are moderated by CIE. The courses are all examined in November.

### **Are CIE marks scaled?**

CIE is not a 'norm referenced' qualification. That means the percentage of students achieving a certain grade will vary from year to year and is not pre-determined. Grades are based on standards that have been set and maintained over a period of time. Experienced examiners are able to assess whether grade boundaries should be adjusted to ensure similar standards are maintained from year to year, while detailed procedures are in place to check standards between subjects.

### **Will my CIE grades be accepted by universities outside New Zealand?**

CIE grades are widely accepted. The Universities and Colleges Admissions Service (UCAS) in the UK has determined that CIE grades and qualifications are to be accepted as equivalent to UK qualifications. A Levels are known and accepted worldwide. Each country or university will have different entry standards and you should check these well ahead of when you apply. In addition, many prestigious universities (such as Oxford and Cambridge) will require an interview as part of their selection. If you are considering overseas study, you are advised to include three A Level subjects in your course of study.

### **Must I complete an IGCSE course before I sit an AS subject?**

There is no requirement that you must complete an IGCSE course first. However, if you are to succeed, you will need an appropriate level of competence and knowledge in a subject before proceeding to a higher level. You may have gained this through a different qualification. As a guide, a C grade in IGCSE is desirable before proceeding to AS and a minimum of a D grade in AS is recommended before attempting A2 Level. Teachers will be able to assist you to decide if your prior learning is sufficient to proceed.

### **Will I get my examination papers back?**

CIE has a large number of candidates from all over the world. Hence it does not return scripts to students.

### **Can I ask for my examination result to be reviewed?**

A fee will be sought before your paper will be reviewed – a range of checking processes can be sought.

### **Can I combine courses from different levels?**

Yes you may study different subjects at different levels. Some courses will be based on courses at a lower level so you should consult your teachers or Mr Pera for specific advice.

### **What is coursework?**

Coursework is work that is assessed in the school by the teachers. This includes projects, folios of essays, field work, art and craft items, design studies, internally set and assessed speaking tests, practical work, assignments and experiments assessed during the course. This work is moderated by CIE. This means that either all the work or a section of the work is sent to the UK for checking. Marks will then be confirmed or adjusted according to the results of the sample. In some subjects, coursework is a compulsory component. In others, schools have the option of selecting a coursework or a non-coursework option.

### **How can I find out more about CIE?**

The CIE website [www.cie.org.uk](http://www.cie.org.uk) has extensive material about CIE qualifications and examinations. This includes course outlines for subjects at all levels as well as specimen and past examination papers. In addition there is considerable material on the CIE student website [www.cambridgestudents.org.uk](http://www.cambridgestudents.org.uk). You can also contact the ACSNZ [www.acsnz.org.nz](http://www.acsnz.org.nz) Administrator or the CIE Representative in New Zealand for more information.

### **How much time is needed to complete an IGCSE course?**

IGCSE is a two-year course. However, Year 9 and 10 programmes will have covered part of your course material. Hence IGCSE courses can usually be covered in a one-year programme in NZ schools.

### **How much time is needed to complete an AS or A2 course?**

You will need to spend about 170-180 hours per course. This is considerably more than is needed for an NCEA course so most students will study three or four subjects each year for AS or A2 Level.

### **Will I get grades only or will I know my marks?**

New Zealand students receive both a mark and a grade for each subject examination sat. For example, your result may be a mark of 74% in AS History and a B grade. The grades that can be achieved for IGCSE range from A\* to G. For AS and A Level they range from A to E. No mark will be given if you fail to achieve a grade (you are Ungraded).

### **What is the difference between A Level and A2?**

To complete an A Level you must sit both AS and A2 papers. This may be done at two separate examination sessions (within a 13 month period) or all papers may be sat at the one session. If you sit them separately, the results will still be combined.

### **What is a 'staged assessment'?**

This is when the AS and A2 papers are sat at separate examination sessions. A staged assessment is possible in most subjects. However, in a small number of subjects (notably languages) a full A Level must be completed at the one examination session.

### **Can I just enter for A2?**

No A2 is not a qualification and can only be taken in conjunction with AS papers (either from the same or an earlier examination session) towards a full A Level.

### **Can I resit papers to improve my grades in a subject?**

Yes, you may resit at any subsequent examination session. The higher marks from the two sets of AS results you have gained will count. However, for AS and A Level you will need to complete all papers within a 13 month period.

### **What is a 'compensatory AS'?**

If you have not previously sat AS papers and you sit a full A Level, it is possible to receive a compensatory AS (based on how you performed in these papers) if you do not meet the standard for an A Level grade.