



**ACG**  
**Strathallan**  
Senior course guide



**2025**

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# Choosing the right subjects

## Introduction

To make well-informed subject choices, consider the following:

### Assess your ability in subjects

- Consider your results and your individual ability. Discuss these with your teachers and parents.

### Future course requirements

- Be careful not to narrow your options by dropping essential subjects.
- What prerequisites are necessary for higher Cambridge or tertiary study?

### Find out what courses cover

- Read this guide carefully
- Talk to teachers and senior students
- Borrow another student's subject notes and consider the content – what is the subject really about and will you enjoy it?

### Think about the importance of your interest in the subject

- Do you really enjoy this subject, or do you just like the teacher?
- Are you taking this subject just because your friends are taking it?

## Senior Curriculum Map

See page 7 for a map detailing the progression of each subject from IGCSE through to A Level. Refer to this as you do your Senior Course Progression Plan (see pages 8 and 9).

## Senior Course Progression Plan

Each student should complete the Senior Course Progression Plan on page 9. Students should enter their completed, current and proposed courses in the spaces provided. Completion of this plan will enable students to visualise how their Cambridge subject choices are likely to progress through Years 11–13. Examples of how this plan could be completed are included.

## Tertiary education and careers

This section contains information relating to University Entrance, prerequisites for university courses and an indication of some of the subjects necessary or useful for future careers.

## ACG Strathallan courses

This section provides detailed syllabus information for each course offered. In exceptional cases, the prerequisites listed may be waived if approval is sought from the Principal.

# List of courses<sup>\*1</sup>

International General Certificate (IGCSE)	Advanced Subsidiary Level (AS)	Advanced Level (A2)
IGCSE Accounting	AS Accounting	A2 Accounting
IGCSE Art and Design	AS Art and Design - Painting AS Art and Design - Digital Media	A2 Art and Design - Painting A2 Art and Design - Digital Media
IGCSE Biology <sup>*4</sup>	AS Biology	A2 Biology
IGCSE Business Studies	AS Business	A2 Business
IGCSE Chemistry <sup>*4</sup>	AS Chemistry	A2 Chemistry
IGCSE Chinese	AS Chinese AS Classical Studies <sup>*2</sup> AS Computer Science	A2 Chinese A2 Classical Studies <sup>*2</sup> A2 Computer Science
IGCSE Design & Technology	AS Design & Technology	A2 Design & Technology
IGCSE Drama	AS Drama <sup>*2</sup>	A2 Drama <sup>*2</sup>
IGCSE Economics	AS Economics	A2 Economics
IGCSE English Literature <sup>*2</sup>	AS English Literature <sup>*2</sup>	A2 English Literature <sup>*2</sup>
IGCSE English Language <sup>*2</sup>	AS English Language <sup>*2</sup>	A2 English Language <sup>*2</sup>
IGCSE Geography <sup>*</sup>	AS Geography <sup>*2</sup>	A2 Geography <sup>*2</sup>
IGCSE History <sup>*2</sup>	AS History <sup>*2</sup>	A2 History <sup>*2</sup>
IGCSE Information Technology	AS Information Technology	
IGCSE Mathematics	AS Mathematics	A2 Mathematics
IGCSE Music	AS Music	A2 Music
IGCSE Physical Education <sup>*2</sup>	AS Physical Education <sup>*2</sup>	
IGCSE Physics <sup>*4</sup>	AS Physics	A2 Physics
IGCSE Spanish <sup>*2</sup>	AS Spanish <sup>*2</sup>	A2 Spanish <sup>*2</sup>
ESOL <sup>*3</sup>	ESOL <sup>*3</sup>	ESOL <sup>*3</sup>

<sup>\*1</sup> Subjects listed will be offered subject to sufficient numbers of students enrolling in those courses.

<sup>\*2</sup> Subjects not generally offered to International students.

<sup>\*3</sup> English for Speakers of Other Languages (ESOL) subject only taken by International students.

<sup>\*4</sup> Year 11 students wishing to select three IGCSE Science subjects should first consult the Year 11 Dean.

# ACG Strathallan Summary of Prerequisites

For AS and A2 level courses

Course	Prerequisite
AS Accounting	60% in IGCSE Accounting or 70% in IGCSE Maths for students who did not take IGCSE Accounting
AS Art and Design – Painting	60% in IGCSE Art and Design
AS Art and Design – Digital Media	60% in IGCSE Art (or special permission from the Art and Design Department)
AS Biology	60% in IGCSE Biology
AS Business	60% in IGCSE Business Studies or 55% in IGCSE English (Language or Literature) for students who did not take IGCSE Business
AS Chemistry	65% in IGCSE Chemistry
AS Chinese	60% in IGCSE Chinese
AS Classical Studies	60% in IGCSE English (Language or Literature)
AS Computer Science	65% in IGCSE Information Technology (IT) or 70% in IGCSE Maths for students who did not take IGCSE IT
AS Design & Technology	60% in IGCSE Design and Technology or 60% in IGCSE Art and Design
AS Drama	55% in IGCSE English (Language or Literature)
AS Economics	60% in IGCSE Economics or 55% in IGCSE English (Language or Literature) for students who did not take IGCSE Economics
AS English Language	50% in IGCSE English Language
AS English Literature	50% in IGCSE English Literature
AS Geography	60% in IGCSE Geography or 60% in IGCSE English (Language or Literature) for students who did not take IGCSE Geography
AS History	60% in IGCSE History or 60% in IGCSE English (Language or Literature) for students who did not take IGCSE History
AS Information Technology	60% in IGCSE IT or 60% in IGCSE Maths or IGCSE English (Language or Literature) for students who did not take IGCSE IT
AS Mathematics	70% in IGCSE Extended Mathematics
AS Music	60% in IGCSE Music or special permission from AS Music teacher
AS Physical Education	55% in the theory component of the Strathallan Term 3 IGCSE Physical Education exam (or 60% in IGCSE Maths or an IGCSE Science for students who did not take IGCSE Physical Education). Strength in at least one sport
AS Physics	65% in IGCSE Physics. Students should also have studied the IGCSE Maths Extended curriculum
AS Spanish	65% in IGCSE Spanish
<b>Entry into an A2 Course</b>	<i>Students should achieve at least a D grade in the AS course for that subject.</i>

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## ACG Strathallan Senior Curriculum Map

Faculty	Course type	IGCSE courses		AS courses		A2 courses	
ART	Art and Design	0400	Art and Design	9749	Art and Design (Painting)	9749	Art and Design (Painting)
				9481	Digital Media (Photography)	9481	Digital Media (Photography)
				9703	Music	9703	Music
	Music	0410	Music	9482	Drama	9482	Drama
	Drama	0411	Drama				
COMMERCE	Accounting	0452	Accounting	9706	Accounting	9706	Accounting
	Business studies/Business	0450	Business Studies	9609	Business Studies	9609	Business Studies
	Economics	0455	Economics	9708	Economics	9708	Economics
HUMANITIES	Geography	0460	Geography	9696	Geography	9696	Geography
	History	0470	History	9489	History	9489	History
	Classical Studies			9274	Classical Studies	9274	Classical Studies
LANGUAGES	English Language	0500	English Language	9093	English Language <sup>^</sup>	9093	English Language
	English Literature	0486	English Literature	9695	English Literature <sup>^</sup>	9695	English Literature
	Spanish Language	0530	Spanish	8022	Spanish	9844	Spanish
	Chinese Language	0547	Chinese	8238	Chinese	9868	Chinese
MATHEMATICS	Mathematics	0580	Mathematics	9709	Mathematics	9709	Mathematics (with Statistics) Mathematics (with Mechanics)
SPORTS/HEALTH SCIENCES	Physical Education	0413	Physical Education	8386	Physical Education		
	Biology	0610	Biology	9700	Biology	9700	Biology
	Chemistry	0620	Chemistry	9701	Chemistry	9701	Chemistry
	Physics	0625	Physics	9702	Physics	9702	Physics
TECHNOLOGY	Design and Technology	0445	Design & Technology	9705	Design & Technology	9705	Design & Technology
	Information Technology	0417	Information Technology	9626	Information Technology		
	Computer Science			9618	Computer Science	9618	Computer Science
ESOL	ESOL		Second Language English		ESOL (NCEA Reading)		ESOL (NCEA writing)

<sup>^</sup>Shaded green cells indicate mandatory subjects – students must take all subjects

<sup>^</sup>Shaded blue cells indicate mandatory choice – student must choose at least one of these subjects

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# ACG Strathallan Senior Course Progression Plan

## Sample progression plan – Year 11 student

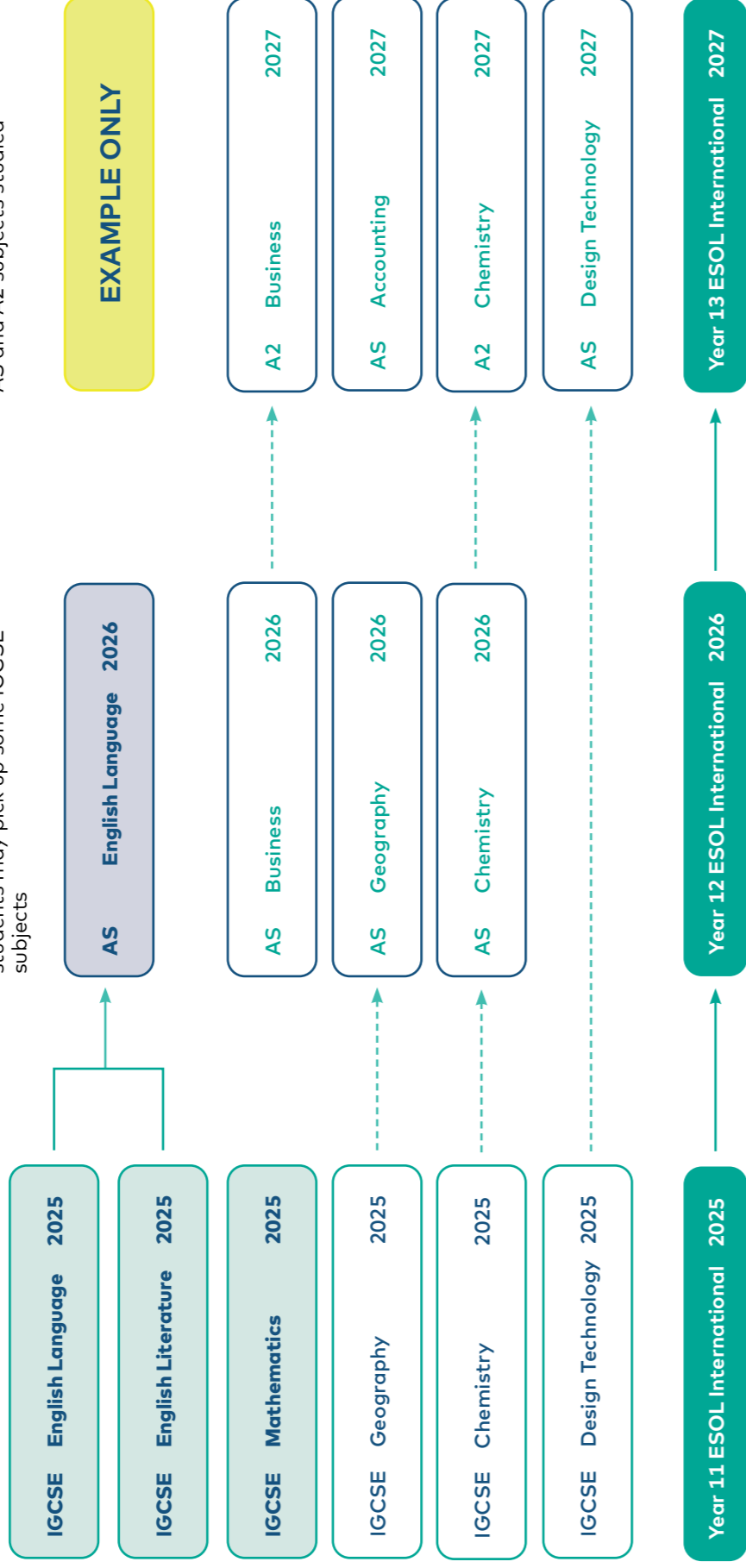
Name: Jane Smith

Year Level: 13

Year 11 – IGCSE subjects studied

Year 12 – Mainly AS subjects, but some students may pick up some IGCSE subjects

Year 13 – Generally a combination of AS and A2 subjects studied

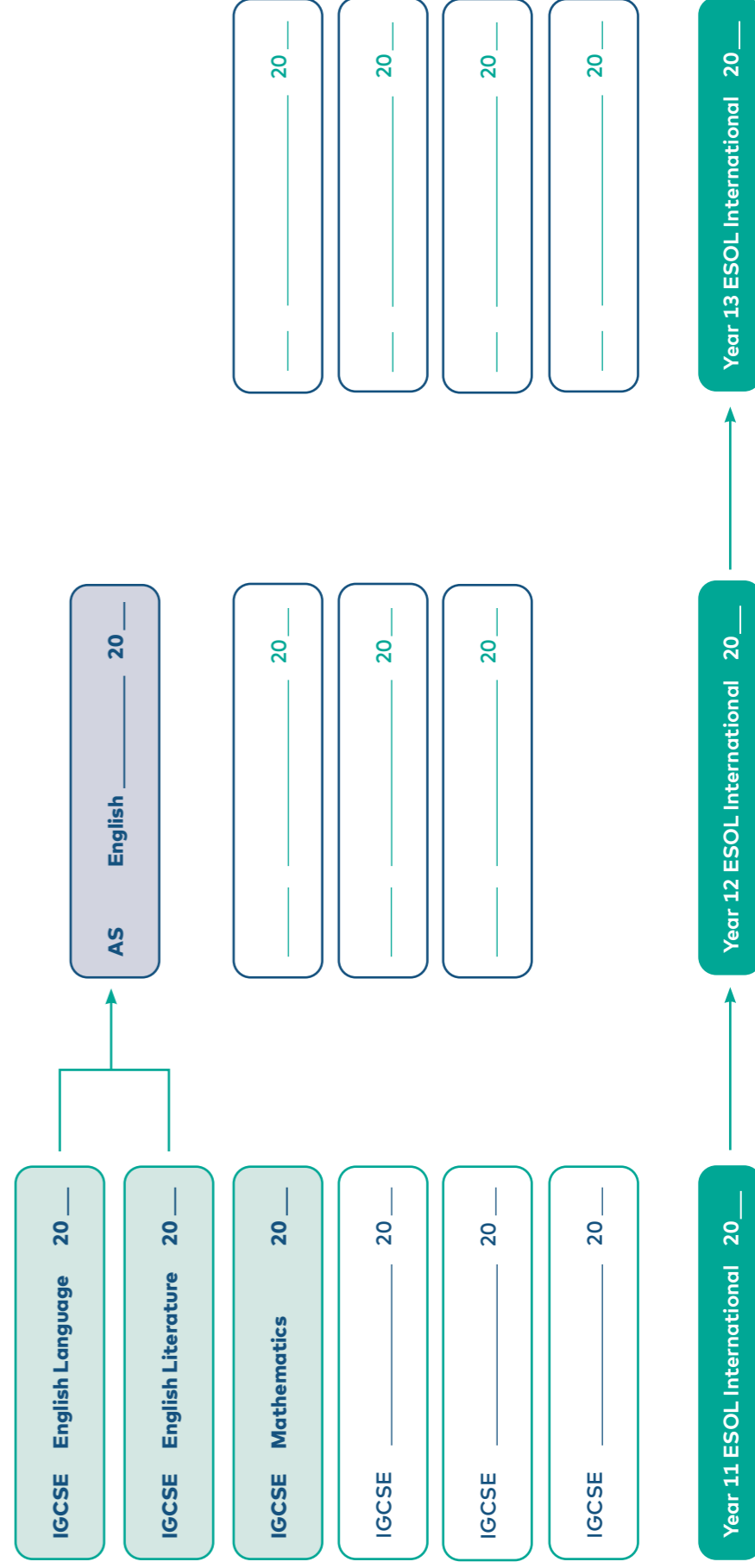


# ACG Strathallan Senior Course Progression Plan

## Your progression plan – enter your completed, current and proposed subjects

Name: \_\_\_\_\_ Year level: \_\_\_\_\_

All Students – Check that your plan meets the criteria for entry into tertiary courses.



# University Entrance and Careers

Information relating to tertiary education and career choices

## New Zealand University Entrance

New Zealand University Entrance standards for Cambridge Assessment students are based on a UCAS (University and Colleges Admissions Service) tariff system determined by the table below.

Grade	Approx mark range	UCAS points (AS level)	UCAS points (A level)
A*	90–100%	-	140
A	80–90% (for A Level) 80–100% (for AS Level)	- 60	120
B	70–79%	50	100
C	60–69%	40	80
D	50–59%	30	60
E	40–49%	20	40

**Note:** Marks below 40% generate no points

## University Entrance Minimum Requirements (Common Entry Standard)

For New Zealand University Entrance, all students are required to meet a General Entry Standard, and to reach specified standards in both Literacy and Numeracy.

<b>General Entry Standard</b>	A minimum total of 120 points on the UCAS Tariff from subjects at A or AS level, including a D grade or better in syllabuses from at least three different syllabus groups (excluding Thinking Skills)
<b>Numeracy Standard</b>	A minimum grade of D in IGCSE Mathematics
<b>Literacy Standard</b>	A minimum grade of E in either AS Language or AS Literature (or for International students sufficient credits in NCEA Level 2 English)

For entry into university courses, UCAS points will be accumulated from the best six subject units (excluding Thinking Skills). AS Level grades count as one subject unit and A level grades count as two subject units.

Entry requirements for specific courses at the University of Auckland can be found at: <https://www.auckland.ac.nz/en/study/applications-and-admissions/entry-requirements/undergraduate-entry-requirements/new-zealand-secondary-school-applicants/university-cambridge-international-examinations.html>

# Subject requirements for careers

The information on the following pages gives an outline of some tertiary courses, the likely prerequisite school subjects and current course entry requirements. It is meant as a guide to help in the selection of appropriate subjects, in order that career opportunities and choices are not limited.

While every attempt has been made to ensure the information is correct, check current entry requirements and prerequisites on university websites and in prospectuses.

## Key to codes and abbreviations

**CIE** – Cambridge International Exams (Now called “Cambridge”)

**AS** – Advanced Subsidiary Level

**AL** – Advanced Level

**UE** – University entrance

Career area	Type of qualification	Subjects that are necessary or useful	Notes
<b>Agriculture/Farming</b>	Certificate/Diploma	Biology, English, Maths, Chemistry	16+ years
	Degree	Biology, Maths, Physics, Chemistry	
<b>Aviation (i) through the New Zealand Air Force</b>	Officer (various fields)	Maths, English, Science (preferably Physics)	
	Pilot/Navigator	Maths, IT, English, Physics	
	Technical trades	Maths, English, Science, Design Tech, IT	
<b>Aviation (ii) through Massey University</b>	Degree (Bachelor of Aviation)	Maths, English, Physics	Pre-selection exam
<b>Aviation (iii) Flying Academy/School e.g. Ardmore, Nelson schools, CTC</b>	License	Maths, English, Physics	
<b>Aviation (iv) Air New Zealand Aeronautical Engineering</b>	Certificate/Diploma	Maths, English, Physics	
<b>Architecture</b>	Degree	Maths, Design Tech, IT, Art & Tech	Portfolio may be required – limited entry
<b>Architectural Drafting</b>	Certificate	Maths, Design Tech, IT	
<b>Business or Commerce or Management</b>	Certificate, Diploma or Degree	Business, English, Accounting, Economics, IT, Maths (If majoring in Economics or Finance)	Some universities have limited entry

## Subject requirements for careers

Career area	Type of qualification	Subjects that are necessary or useful	University notes
<b>Computing/IT/Computer Science</b>	Certificate or Diploma	IT, Computing, Maths	
	Degree	IT, Computing, Maths	<i>Some universities have limited entry / maths requirements</i>
<b>Communication Studies/ Media Studies</b>	Certificate, Diploma or Degree	English-rich subjects, e.g. Languages, Geography, History, English	
<b>Dentistry</b>	Degree	Science subjects	<i>First year – Health Science at Otago Uni</i>
<b>Design</b>	Degree	Art & Tech, Design Tech, English, History, Maths, Physics, IT	<i>UE, Portfolio may be required</i>
<b>Engineering</b>	Diploma/Certificate	Maths, Physics, Design Tech.	
	Degree	Maths, Physics, Chemistry	<i>Maths &amp; Physics (full A levels)</i>
<b>Fine Arts</b>	Diploma	Art & Tech, English, Design Tech.	<i>Portfolio may be required</i>
	Degree	Art & Tech, English, Design Tech.	<i>Portfolio may be required</i>
<b>Food Science Human Nutrition</b>	Degree	Sciences including Chemistry	
<b>Forestry</b>	Certificate, Diploma or Degree	Biology, Chemistry, Maths, Economics, English	
<b>Health Science</b> Includes: Medicine, Dentistry, Optometry, Biomedical, Pharmacy, Nursing, Medical Science/ Radiation and Imaging	Degree	Biology, Chemistry to A Level. English, Physics and Maths to at least AS level	<i>Competitive entry. Some universities require interview and other entry tests. Full A level required for some degrees</i>
<b>Horticulture</b>	Certificate, Diploma or Degree	Biology, Maths	
<b>Languages</b>	Degree	English, Spanish, Chinese	
<b>Landscape Architecture Garden Design</b>	Certificate, Diploma or Degree	Design Tech, Biology, IT (Maths if doing the degree)	

## Subject requirements for careers

Career area	Type of qualification	Subjects that are necessary or useful	University notes
<b>Law</b>	Degree	English rich subjects e.g. History, Geography, Economics, English	<i>Competitive entry to second year</i>
<b>Music</b>	Degree	Music to at least AS, preferably A2	<i>Auditions. Early enrolment required</i>
<b>Physiotherapy (Otago University or AUT)</b>	Degree	Biology, Chemistry	<i>Full A levels. Competitive. Otago University has first year Health Science</i>
<b>Sport and Recreation/ Sport and Exercise/ Sport Science/Physical Education</b>	Certificate, Diploma or Degree	Biology and other sciences may be required for degree qualification	
<b>Science</b> Various Majors	Certificate	Biology, Chemistry, Maths, Physics	
	Degree	Biology, Chemistry, Maths, Physics	<i>Limited entry at Auckland for some courses</i>
<b>Speech &amp; Language Therapy</b>	Degree	Biology, English	<i>Competitive</i>
<b>Social Work</b>	Degree	English, Geography	<i>Interview required. Good communication skills</i>
<b>Surveying</b>	Diploma/Certificate	Maths, Physics, Design Tech.	
	Degree	English, Maths, IT, Physics, Geography	<i>Intermediate year required at Otago.</i>
<b>Teaching</b>	Degree/Diploma	Dependent on your specialist teaching subject.	<i>Interview</i>
<b>Technology</b>	Degree	Chemistry, Maths, Physics, Biology	
<b>Tourism/Hospitality</b>	Certificate, Diploma or Degree	Languages, English, Geography, History	
<b>Veterinary Science</b>	Degree	AL Biology, AL Chemistry, AS Maths, AS Physics, English	<i>Assessment tests. Competitive. Vet clinic experience. Pre selection in Sem 1 at Manawatu campus.</i>
<b>Visual Arts</b>	Diploma or Degree	English, Art, Digital Media, Design	<i>Portfolio may be required</i>

# IGCSE Accounting

Syllabus Code **0452**

Prerequisites **Nil**

## Syllabus Statement

The aims of the Cambridge IGCSE Accounting syllabus are to enable students to develop:

- knowledge and understanding of the principles and purposes of accounting for individuals, businesses, non-trading organisations and society as a whole
- an understanding of accounting principles, policies, techniques, procedures and terminology
- improved skills of numeracy, literacy, communication, enquiry, presentation and interpretation
- improved accuracy, orderliness and the ability to think logically
- an excellent foundation for advanced study

## Assessment Objectives

**Knowledge with understanding:**

- demonstrate knowledge and understanding of facts, terms, principles, policies, procedures and techniques in the syllabus
- demonstrate understanding of knowledge through numeracy, literacy, presentation and interpretation
- apply knowledge and information to various accounting situations and problems

**Analysis**

- select data relevant to identified needs of business
- order, analyse and present information in an appropriate accounting form

**Evaluation**

- develop an ability to interpret and evaluate accounting information and draw reasoned conclusions

## Course Content

**Fundamentals of Accounting**

**Accounting principles and properties**

**Sources and recording of data:**

- documents, prime books and ledgers

**Verification of accounting records:**

- trial balance and correction of errors
- control accounts and bank reconciliation statements

**Adjustments required for final accounts:**

- accruals
- prepayments
- depreciation
- disposals
- bad and doubtful debts

**Preparation and principles of financial statements:**

- sole traders
- incomplete records
- partnerships, clubs and societies
- manufacturing accounting and limited companies

**Analysis and interpretation**

## Assessment Modes

Papers	Assessment Type	Weight	Length
0452/1	Multiple choice	30%	1 hr 15
0452/2	Structured questions	70%	1 hr 45

## Subject Progression

**This course leads to Accounting:**

- Advanced Subsidiary (AS) course: 9706
- Advanced-Level (A2) course: 9706



# AS/A2 Accounting

## Syllabus Statement

The aims are to enable students to:

- understand the role of accounting as an information system for monitoring, problem-solving and decision-making
- appreciate the ethical issues that underpin the practice of accounting and their impact on the behaviour of the accountant and of businesses
- appreciate the place of accounting in managing business change in response to economic, social and technological developments
- develop the ability to apply and evaluate accounting concepts, principles, policies and practices
- develop skills of communication, analysis, interpretation and presentation of both qualitative and quantitative accounting information
- develop skills and knowledge needed for further study or employment in accounting or business.

# AS Accounting

Syllabus Code **9706**

Prerequisites • 60% in IGCSE Accounting or  
• 70% in Mathematics\*

## Course Content

**Financial Accounting**

- 1.1 Types of business entity- Sole Trader,

\*For students who did not take IGCSE level of this course

Partnership & Limited Company

- 1.2 The accounting system
- 1.3 Accounting for non-current assets
- 1.4 Reconciliation and verification
- 1.5 Preparation of financial statements -with year-end adjustments
- 1.6 Analysis and communication of accounting information

**Cost and management accounting**

- 2.1 Costs and cost behaviour
- 2.2 Traditional costing methods -Absorption, Marginal & Cost-volume-profit Analysis

## Assessment Modes

Papers	Assessment Type	Weight	Length
9706/1	Multiple choice (30 questions)	28%	1 hr
9706/2	Structured questions (4 questions)	72%	1 hr 40

## Subject Progression

**This course leads to Accounting:**

- Advanced-Level (A2) course: 9706 in 2025 only. In 2026 and beyond, A2 Accounting will not be available.



# A2 Accounting

Syllabus Code **9706**  
Prerequisites **AS Accounting**

### Note

A2 Accounting will be available in 2025 (subject to sufficient numbers) but will not be available in 2026 and beyond.

### Course Content

#### Financial Accounting – based on IAS (International Accounting Standards)

- 3.1 Preparation of financial statements
  - Partnership adjustments & Dissolution
  - Non-profit organisations
  - Manufacturing
  - Limited companies
- 3.2 Regulatory and ethical considerations
- 3.3 Business acquisition and merger
- 3.4 Computerised accounting systems
- 3.5 Analysis and communication of accounting information

#### Cost and management accounting

- 4.1 Activity based costing (ABC)
- 4.2 Standard costing & variance analysis
- 4.3 Budgeting and budgetary control
- 4.4 Investment appraisal

### Assessment Modes

Papers	Assessment Type	Weight	Length
9706/3	Financial Accounting (3 questions)	60%	1 hour 30mins
9706/4	Cost & Management Accounting (2 questions)	40%	1 hour

### AS/A2 Course Weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%



# IGCSE Art and Design

Syllabus Code **0400**  
Prerequisites **Nil**  
Additional Costs • Excursion: \$20

### Syllabus Statement

The personal response encouraged by the Art and Design Syllabus will stimulate students' imagination, sensitivity, conceptual thinking, powers of observation and analytical ability. Students develop confidence and enthusiasm in the practice of art and design as they gain the technical skill necessary to form, compose and communicate in two dimensions, and the ability to identify and solve problems in visual and tactile form. Students are expected to show the development of ideas from initial attempts to final solutions. The study of art and design will lead to a wider awareness of the role played by the visual arts in society and the design world. This broadens students' cultural horizons and helps to develop skills used in creative careers such as architecture, animation, graphic design, fashion design and game design.

### Course Content

Students follow a painting pathway but may choose to incorporate graphic design or illustrative elements into their work.

- painting and drawing techniques, styles and processes using a variety of different materials and media, including pencil, charcoal, pastel, coloured pencil, acrylic paint, ink, watercolour, Indian ink
- line, tone, space, colour, texture, shape, form and structure
- contemporary and historical New Zealand and international artists
- exploring how art and design can be incorporated into commercial outcomes
- evaluation and analysis of composition using relevant vocabulary
- individual expression and development of ideas
- exploration of digital graphics and media

### Assessment Modes

Papers	Assessment Type	Weight	Length
0400/2	Externally set assignment	50%	8 hrs*
0400/1	Coursework assignment	50%	Terms 1-3

\*6 weeks preparation and 8 hour examination (usually over several sessions of 3 to 4 hours duration).

### Coursework

Students will produce a portfolio of drawings and paintings (preparation work) and one final painting or outcome. This is assessed by the subject teacher and then externally moderated.

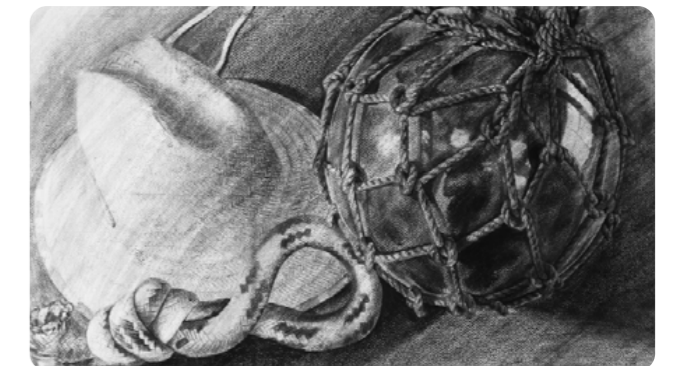
### Assessment Breakdown

Students will sit an 8-hour examination. Candidates respond in either an observational or interpretive manner. Whichever approach is selected, first-hand studies from primary sources must be used as the starting point for the development of ideas.

### Subject Progression

This course leads to Art and Design:

- Advanced Subsidiary (AS) Painting course: 9749
- Advanced Subsidiary (AS) Digital Media (Photography) course: 9481
- Advanced-Level (A2) Painting course: 9749
- Advanced-Level (A2) Digital Media (photography) course: 9481



## AS/A2 Art and Design

### Syllabus Statement

Art and Design is a mode of expression and communication. It is concerned with visual perception and aesthetic experience, and forms a language other than those used in literary, mathematical, scientific and factually-based subjects. Most of the work is practical or studio-based so that students develop their abilities of observation and analysis of the visual world, sensitivity, skill, personal expression and imagination. They should also learn to relate their skills to an enhanced knowledge of their own and other cultures, past and present, and an appreciation of practical design problems. The course stimulates interest, enjoyment and personal enrichment as well as providing an introduction to artistic exploration and design thinking.

## AS Art and Design Painting

**Syllabus Code** 9749

**Prerequisites** 60% in IGCSE Art and Design

### Course Content

#### Painting and drawing techniques:

- processes and procedures relating to direct observation of individual subject matter
- critical evaluation and analysis of traditional and contemporary artist models
- generation and development of ideas and formal concerns
- develop appreciation and cultural awareness through personal ideas and images

### Assessment Modes

Papers	Assessment Type	Weight	Length
9749/1	Coursework (externally assessed)	50%	Terms 1–3
9749/2	Externally set assignment	50%	15 hr*

\*Six weeks preparation and 15 hours in a controlled test (examination) spread over several sessions.

### Coursework

Students must submit one coursework painting and up to five sheets of A2 boards of supporting work. The intention of this coursework is to allow students to pursue a field of study in research, development and realisation in depth. This work is externally assessed by Cambridge Assessment.

### Assessment Breakdown

The examination (controlled test) is an externally-set painting assignment marked by Cambridge Assessment. Up to three sheets of A2 boards of preparatory work is to be prepared prior to the 15-hour controlled test. Topics or themes are broad and flexible.

### Subject Progression

**This course leads to Art and Design:**

Advanced-level (A2) course: 9749



## A2 Art and Design Painting

**Syllabus Code** 9749

**Prerequisites** AS Art and Design Painting

### Course Content

#### Personal Investigation:

Students investigate a theme, idea, concept or process that is personal to them. There are 2 parts to the investigation

- practical work and
- written analysis (1000-1500 word).

Students produce practical work supported by written analysis containing detailed research. Work will be submitted on A2 Boards – the minimum number of eight boards is to be produced. The intention of the Personal Investigation is to allow students to pursue research, development and realisation in depth, with emphasis placed on the resolution of the final outcome. Students are to use a variety of drawing and painting mediums. This work will be externally assessed by Cambridge Assessment.

### Assessment Modes

Papers	Assessment Type	Weight	Length
9749/3	Personal Investigation (externally assessed)	100%	Terms 1–3

### AS/A2 Course Weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%



## AS/A2 Digital Media & Design (Photography)

### Syllabus Statement

The emphasis of the course is on a personal response and a creative journey when fulfilling a design brief based around photographic techniques and processes.

## AS Digital Media & Design (Photography)

<b>Syllabus Code</b>	<b>9481</b>
<b>Prerequisites</b>	<ul style="list-style-type: none"> <li>• 60% in IGCSE Art and Design, or</li> <li>• Special permission from Art &amp; Design department</li> </ul>
<b>Additional Costs</b>	• Students must provide their own laptop*

### Course Content

#### Research and Record

#### Explore and Select

#### Developing Ideas

#### Produce

**Students should demonstrate knowledge and understanding of:**

- working to a brief
- ethical considerations of digital media and design
- critical and contextual understanding
- design theories
- drawing from design
- formal elements of design
- evaluation and testing of design

### Assessment Modes

Papers	Assessment Type	Weight	Length
9481/1	Portfolio (externally assessed)	50%	Terms 1–3
9481/2	Externally-set Assignment	50%	10 hrs

### Coursework

**There are two elements to the portfolio:**

- supporting studies
- proposal

**Students will produce 10 sheets of work that express their ideas based on one of the following themes:**

- Boundaries
- Digital poetry
- Emotions
- Travel

### Assessment Breakdown

Practical examination is set and marked by Cambridge Assessment.

**There are two elements to the examination:**

- supporting studies – produced before the examination
- final outcome – produced in the 10-hour test

### Subject Progression

**This course leads to Digital Media:**

Advanced level (A2) course: 9481



## A2 Digital Media & Design (Photography)

### Assessment Modes

Papers	Assessment Type	Weight	Length
9481/3	Personal Investigation - a final practical outcome and a written analysis. (Externally assessed).	100%	Terms 1–3

**Syllabus Code** **9481**

**Prerequisites** AS Digital Media

**Additional Costs** • Students must provide their own laptop\*

### Course Content

#### Research and Record

#### Explore and Select

#### Developing Ideas

#### Produce

The aim of the Personal Investigation is for candidates to engage in a self-directed period of sustained and focused study. Candidates research a topic or theme of their choice. Their study should bring together the skills they have developed so far and demonstrate that they are able to work independently to resolve a given idea. The project should be personal, reflecting the interest and developing the skills most applicable to each candidate. While this may develop a theme or skills covered in one of the AS components, the focus, scope and outcome should be different.

Students will be expected to fulfill the assessment objectives: research and record, explore and select; developing ideas; produce.

The final outcome should be supported by a written and visual critical analysis which clarifies working creative processes. Candidates will produce as many pages (pdf files) of work that express their own ideas. Candidates must provide footnotes and a bibliography or references section.



## IGCSE Biology

**Syllabus Code** 0610

**Prerequisites** Nil

### Note

Year 11 students wishing to select three Science subjects should first consult the Year 11 Dean)

### Syllabus Statement

The IGCSE Biology syllabus provides a course of study to stimulate students' interest in Biology. The course includes promoting an awareness that scientific theories and methods have developed, and continue to do so, as a result of the co-operative activities of groups and individuals; the study and practice of science is subject to social, economic, technological, ethical and cultural influences and limitations; recognise the usefulness, and limitations, of scientific method and to appreciate its applicability in other disciplines and in everyday life.

It is intended that students who complete this course are suitably prepared for studies beyond the IGCSE level in biology, which may be useful in everyday life, encourage efficient and safe practice and encourage effective communication.

### Course Content

#### Characteristics and classification of living organisms

- characteristics of living organisms
- concept and use of classification systems
- features of organisms

#### Organisation and maintenance of the organism

- cell structure and organisation
- size of specimens
- diffusion, osmosis, active transport
- biological molecules and enzymes
- nutrition in plants and animals (Diet and digestive)
- transport in plants and animals, respiration, excretion in humans, co-ordination and response, (disease and immunity, drugs, hormones, homeostasis and plants)

#### Organism and continuity of life

- reproduction in plants and animals
- inheritance
- variation, and selection
- biotechnology and genetic engineering

#### Organisms and their environment:

- energy flow
- food chains and food webs
- nutrient cycles
- population size
- human influences on the ecosystem

### Assessment Modes

Papers	Assessment Type	Weight	Length
0610/2	Multiple choice	30%	45 mins
0610/4	Theory	50%	1 hr 15
0610/5	Practical test	20%	1 hr 15

### Subject Progression

#### This course leads to Biology:

- Advanced Subsidiary (AS) course: 9700
- Advanced-Level (A2) course: 9700



## AS/A2 Biology

### Syllabus Statement

The Biology syllabus stimulates students' interest in Biology and enables them to understand its relevance to society. It develops abilities and skills useful to everyday life, encourages efficient and safe practice and effective communication. Relevant biological attitudes, such as concern for accuracy and precision, objectivity and integrity, are promoted. The course assists with the development of the skills of scientific inquiry, initiative and inventiveness. Students are encouraged to develop an interest in and care for the local and global environment, and understand the need for conservation. The course promotes an awareness that the study and practice of biology is subject to social, economic, technological, ethical and cultural influences and limitations. Students study the applications of biological science and come to realise that they may be both beneficial and detrimental to the individual, the community and the environment.

#### Genetic Control

- The structure and replication of DNA
- The role of DNA in protein synthesis

#### Transport

- The need and function of transport systems in plants and mammals
- The mammalian heart

#### Gas Exchange

- The respiratory system

#### Infectious Disease

- Cholera, malaria, tuberculosis (TB) and AIDS
- Antibiotics

#### Immunity

- The immune system
- Vaccination

### Assessment Modes

Papers	Title	Weight	Length
9700/1	Multiple choice	31%	1 hr 15
9700/2	Structured questions	46%	1 hr 15
9700/3	Advanced practical skills paper	23%	2 hrs

## AS Biology

**Syllabus Code** 9700

**Prerequisites** 60% in IGCSE Biology

### Course Content

#### Cell Structure

- The microscope in cell studies
- Cells as the basic units of living organisms
- Detailed structure of typical animal and plant cells, as seen under the electron microscope
- Outline functions of organelles in plant and animal cells
- Characteristics of prokaryotic and eukaryotic cells

#### Biological Molecules

- The structure of carbohydrates
- Lipids, proteins and water and their roles in living organisms

#### Enzymes

- Mode of action of enzymes

#### Cell Membranes and Transport

- The fluid mosaic model of membrane

#### The mitotic cell cycle

- Replication and division of nuclei and cells
- Understanding of chromosome behaviour in mitosis

### Subject Progression

#### This course leads to Biology

- Advanced-Level (A2) course: 9700

# A2 Biology

**Syllabus Code** 9700  
**Prerequisites** AS Biology

## Course Content

### Energy and Respiration

- The need for energy in living organisms
- Respiration as an energy transfer process
- Aerobic respiration
- Anaerobic respiration
- The use of respirometers

### Photosynthesis

- Photosynthesis as an energy transfer process
- The investigation of limiting factors

### Homeostasis

- The importance of homeostasis
- Excretion
- Control of water and metabolic wastes
- Homeostasis in plants

### Control and co-ordination

- Nervous and endocrine systems
- Control and co-ordination in plants

### Inherited Change

- The passage of information from parent to offspring
- The nature of genes and alleles and their role in determining the phenotype
- Monohybrid and dihybrid crosses

### Selection and Evolution

- Natural and artificial selection

### Biodiversity, classification and conservation

- Biodiversity and conservation, classification

### Gene Technology

- For insulin production
- Markers for genetic engineering
- Benefits and hazards
- Gene fingerprinting
- Cystic fibrosis
- Genetic screening and counselling
- Gene therapy
- Microarrays
- Bioinformatics

## Assessment Modes

Papers	Title	Weight	Length
9700/4	Structured questions	77%	2 hrs
9700/5	Planning, Analysis and Evaluation	23%	1 hr 15

## AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%



# IGCSE Business Studies

**Syllabus Code** 0450  
**Pre-requisites** Nil  
**Additional Costs** Excursion ~ \$30

## Syllabus Statement

Students will be able to make effective use of relevant terminology, concepts and methods and recognise the strengths and limitations of the ideas used. They will apply their knowledge and critical understanding to current issues and problems in a wide range of appropriate contexts. They will distinguish between facts and opinions, and evaluate qualitative and quantitative data in order to help build arguments and make informed judgements. They will learn to appreciate the perspectives of a range of stakeholders in relation to the environment, individuals, society, government and enterprise. They will develop knowledge and understanding of the major groups and organisations within and outside business and consider ways in which they are able to influence objectives, decisions and activities. They will develop knowledge and understanding of how the main types of business and commercial institutions are organised, financed and operated and how their relations with other organisations, consumers, employees, owners and society are regulated. They will develop skills of numeracy, literacy, enquiry, selection and employment of relevant sources of information, presentation and interpretation as well as an awareness of the nature and significance of innovation and change within the context of business activities.

## Course content:

### Business and the environment in which it operates

- Business activity
- The organisation
- Changing business environment and the economic environment

### Business Structure, organisation and control

- Ownership, internal organisation and financing business activity

### Business activity to achieve objectives

- Marketing
- Production (operations management)
- Financial information and decision making

## People in Business

- Human needs and rewards and manpower

## Regulating and Controlling business activity

- Reasons for regulations and influences on business activity

## Assessment Modes

Papers	Assessment Type	Weight	Length
0450/1	Short answer and Data response	50%	1 hr 30
0450/4	Case Study	50%	1 hr 30

## Subject Progression

### This course leads to Business

- Advanced Subsidiary (AS) course: 9609
- Advanced Level (A2) course: 9609





## AS/A2 Business

### Syllabus Statement

This Syllabus encourages students to understand and appreciate the nature and scope of business, and its role in society. Students develop critical understanding of organisations, the markets they serve and the process of adding value. This involves consideration of the internal workings and management of organisations and, in particular, the process of decision making in a dynamic external environment. Students are made aware that business behaviour can be studied from a range of stakeholder perspectives including customer, manager, creditor, owner/shareholder and employee. The course focuses on the economic, environmental, ethical, governmental, legal, social and technological issues associated with business activity. Students develop skills in decision-making and problem solving, the quantification and management of information and effective communication.

## AS Business

**Syllabus Code** 9609

**Pre-requisites** • 60% in IGCSE Business Studies or  
• 55% in IGCSE English\*

**Additional Costs** Excursion ~ \$30

### Course Content

#### Business and its Environment

- Enterprise
- Business structures
- Size of business
- Business objectives
- Stakeholders in a business

#### Human resource management

- Human resource management
- Motivation
- Management

#### Marketing

- The nature of marketing
- Market research
- The marketing mix

#### Operations Management

- The nature of operations
- Inventory management
- Capacity utilisation and outsourcing

#### Finance and Accounting

- Business finance
- Sources of finance
- Forecasting and managing cash flows
- Costs
- Budgets

### Assessment Modes

Papers	Assessment Type	Weight	Length
9609/1	Short Answers and Essay	40% of the AS Level	1 hr 15
9609/2	Data Response	60% of the AS Level	1 hr 30

### Subject Progression

#### This course leads to Business

Advanced-level (A2) course: 9609

## A2 Business

**Syllabus Code** 9609

**Prerequisites** AS Business

**Additional Costs** Excursion ~ \$30

### Course content:

#### Business and the environment

Business and economic structures

- External influences on business activity
- Business strategy

#### Human resource management

- Organisational structure
- Business communication
- Leadership
- Human resource management strategy

#### Marketing

- Marketing analysis
- Marketing strategy

#### Operations management

- Location and scale
- Quality management
- Operations strategy

#### Finance and accounting

- Financial statements
- Analysis of published accounts
- Investment appraisal
- Finance and accounting strategy



### Assessment Modes

Papers	Assessment Type	Weight	Length
9609/3	Case study	30% of the A Level	1 hr 45mins
9609/4	Case study	20% of the A Level	1 hr 15mins

### AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%

## IGCSE Chemistry

Syllabus Code 0620

Prerequisites Nil

### Note

Year 11 students wishing to select 3 Science subjects should first consult the Year 11 Dean.

### Syllabus Statement

The syllabus offers an in-depth look of Chemistry and is based on experimental work followed by theory supporting the experimental observations. Precision in observing and recording observations is encouraged and as far as possible the topics covered are related to the 'real world'.

### Course Content

#### The Particulate Nature of Matter

- States of matter
- Kinetic theory

#### Experimental Techniques

- Measurement
- Criteria of purity
- Methods of purification

#### Atoms, Elements and Compounds

- Atomic structure
- The periodic table
- Atomic bonding and structure

#### The Periodic Table

- Periodic trends
- Transition elements
- Noble gases
- Group properties

#### Stoichiometry

- Symbols
- Chemical formulae
- Equations
- Mole concept

#### Electricity and Chemistry

- Electrolysis and electroplating

#### Chemical Energetics

- Energetics of reactions
- Energy transfer

#### Chemical Reactions

- Rate of reactions
- Reversible reactions and redox reactions

#### Acids, Bases and Salts

- Properties of acids and bases
- Types of oxides
- Preparation of salts
- Identification of ions and gases

#### Metals

- Properties of metals
- Reactivity series
- Extraction of metals,
- Uses of metals

#### Air and Water

- Testing and purification of water
- Composition of air
- Pollutants in air
- Uses of oxygen and nitrogen
- Environmental issues

#### Sulphur and Carbonates

- Properties and manufacture of sulphuric acid
- Uses and manufacture of lime and limestone

#### Organic Chemistry

- Names of compounds
- Fuels, alkanes, alkenes, alcohols and carboxylic acids
- Natural and synthetic macromolecules (polymers)

### Assessment Modes

Papers	Assessment Type	Weight	Length
0620/2	Multiple choice	30%	45 mins
0620/4	Short answer and structured questions	50%	1 hr 15
0620/5	Practical test	20%	1 hr 15

### Subject Progression

#### This course leads to Chemistry:

- Advanced Subsidiary (AS) course: 9701
- Advanced-Level (A2) course: 9701

## AS/A2 Chemistry

### Syllabus Statement

The Chemistry Syllabus provides a course of study which stimulates students' interest in Chemistry and enables them to understand its relevance to society. It develops abilities and skills that are useful to everyday life, encourage efficient and safe practice and effective communication. Relevant scientific attitudes such as concern for accuracy and precision, objectivity and integrity are promoted. The course aims to assist with the development of the skills of scientific inquiry, initiative and inventiveness. The course promotes an awareness that the study and practice of chemistry is subject to social, economic, technological, ethical and cultural influences and limitations. Concern for the environment in terms of the impact of chemical activities and applications is fostered and balanced against the economic needs of society.



## AS Chemistry

Syllabus Code 9701

Prerequisites 65% in IGCSE Chemistry

### Course Content

#### Physical Chemistry

- Atoms, molecules and stoichiometry
- Atomic structure
- Chemical bonding
- States of matter
- Chemical energetics
- Electrochemistry
- Equilibria
- Reaction kinetics

#### Inorganic Chemistry

- The periodic table: chemical periodicity
- Group 2
- Group 17
- Nitrogen and Sulfur

#### Organic Chemistry

- An introduction to AS level organic chemistry
- Hydrocarbons
- Halogen compounds
- Hydroxy compounds
- Carbonyl compounds
- Carboxylic acids and derivatives
- Nitrogen compounds
- Polymerisation
- Organic synthesis

#### Analysis

- Analytical techniques (IR, MS)

### Assessment Modes

Papers	Title	Weight	Length
9701/1	Multiple choice	31%	1 hr 15
9701/2	Structured questions	46%	1 hr 15
9701/3	Advanced practical skills paper	23%	2 hrs

### Subject Progression

#### This course leads to Chemistry

- Advanced-Level (A2) course: 9701

## A2 Chemistry

**Syllabus Code** 9701  
**Prerequisites** AS Chemistry

### Course Content

#### Physical Chemistry

- Chemical energetics
- Electrochemistry
- Equilibria
- Reaction kinetics

#### Inorganic Chemistry

- Group 2
- An introduction to the Chemistry of transition elements

#### Organic Chemistry

- An introduction to A Level organic chemistry
- Hydrocarbons
- Halogen compounds
- Hydroxy compounds
- Carboxylic acids and derivatives
- Nitrogen compounds
- Polymerisation
- Organic synthesis

#### Analysis

- Analytical Techniques (NMR, Chromatography)



### Assessment Modes

Papers	Title	Weight	Length
9701/4	Structured questions	77%	2 hrs
9701/5	Planning, Analysis and Evaluation	23%	1 hr 15

### AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%

## IGCSE Chinese

**Syllabus Code** 0547  
**Prerequisites** 2 full years of Chinese study: Years 9 and 10. Students should consult the Chinese teacher before choosing this subject.

### Note

Cambridge does not hold an IGCSE Chinese examination in the Oct/Nov examination session. Students sit the IGCSE Chinese examination in the May/June session of the year after the course has been studied.

### Syllabus Statement

The Chinese syllabus develops the students' ability to use the language effectively for the purposes of practical communication in all countries where the language is spoken. It will give students a sound base of listening, speaking, reading and writing skills required for further study, work, or leisure. It offers insight into Chinese cultures and civilisations and encourages positive attitudes towards them. The study of a foreign language also complements other areas of study by developing a fuller awareness of language and encouraging the use of skills with a more general application.

### Course Content

- **Everyday activities**
- **Personal and social life**
- **The world around us**
- **The world of work**
- **The international world**

### Assessment Modes

Papers	Assessment Type	Weight	Length
0547/1	Listening	25%	40 mins
0547/2	Reading	25%	1 hr 15
0547/3	Speaking	25%	10 mins
0547/4	Writing	25%	1 hr 15

### Subject Progression

**This course leads to Chinese:**

- Advanced Subsidiary (AS) course: 8238
- Advanced Level course: 9868

## AS/A2 Chinese

### Syllabus Statement

The Chinese Language syllabus develops abilities which universities value highly, including a deep understanding of their subjects, higher order thinking skills - analysis, critical thinking, problem solving, presenting ordered and coherent arguments and independent learning and research skills. The course also helps candidates continue to develop a set of transferable skills for understanding and communicating in every day situation in Chinese, and to use Chinese with ever increasing levels of sophistication. Learners build on the solid foundation acquired at IGCSE™ and continue to develop cultural awareness of countries and communities where Chinese is spoken. They develop the essential linguistic skills required for progression to further studies or employment

## AS Chinese

**Syllabus Code** 8238  
**Prerequisites** 60% in IGCSE Chinese

### Course Content

The aims of the course are to:

- develop the language proficiency required to communicate effectively in Chinese as a CEFR Independent user.
- explore and engage with the culture and society of countries and communities where Chinese is spoken.
- encourage positive attitudes towards speakers of other languages and a sympathetic approach to other cultures.
- provide enjoyment and intellectual stimulation.
- support the development of transferable skills (e.g communication and organisation skills, autonomy, resourcefulness and cognitive flexibility) to complement other areas of the curriculum.
- continue developing the skills, language and attitudes required for further study, work and leisure.



**Content Topics:**

- Culture
- Health and Well-being
- Education and Future Plan
- Science and Technology
- Our Responsibility for the Planet
- Community and Society

- further develop transferable skills (eg. communication and organisation skills, autonomy, resourcefulness, cognitive and cultural flexibility) to complement other areas of the curriculum, prepare for higher level studies and gain valuable life skills.

**Content Topics:**

- Culture
- Health and Well-being
- Education and future Plan
- Science and Technology
- Our responsibility for the Planet
- Community and Society

**Texts:**

**Section 1**

- Selected poems by Gu Cheng
- "Longxugou" by Lao She
- "Taibeiren" by Bai Xian Yong

**Section 2**

- "Wo Cheng" by XiXi
- "Meiyou niukoude Hongchenshan" by Tiening
- "Weicheng" by Qian Zhong Shu

**Assessment Modes**

Papers	Assessment Type	Weight	Length
8238/1	Listening	25%	1 hr
8238/2	Reading	25%	1 hr 30mins
8238/3	Writing	25%	1 hr 30mins
8238/4	Speaking	25%	16mins

**Subject Progression**

This course leads to Chinese:

- Advanced Level course: 9868

# A2 Chinese

**Syllabus Code** 9868  
**Prerequisites** AS Chinese

**Course Content**

The aims describe the purpose of a course based on this syllabus. The aims are to:

- develop the language proficiency required to communicate effectively in Chinese at B2 and C1 (Independent/Proficient User) level.
- explore, appreciate and engage with the culture, society and literature of countries and communities where Chinese is spoken.
- provide enjoyment, intellectual stimulation and curiosity to learn more.
- develop intercultural awareness, encouraging a positive, open and empathetic approach to other languages and cultures.
- continue developing the skills, language and attitudes required for higher education work and leisure.
- develop an awareness of the students' own personal learning style and the opportunities for learning independently.

**Assessment Modes**

Papers	Assessment Type	Weight	Length
9868/1	Reading	33%	1 hr 30
9868/2	Writing	33%	2 hrs
9868/3	Literature	33%	2 hrs



# AS/A2 Classical Studies

**Syllabus Statement**

The Classical Studies syllabus provides candidates with an understanding and appreciation of classical civilisations. The study of classical civilisations is valuable because:

- They form the basis for the Western traditions of art, literature, philosophy, political thought and science which have shaped the modern world
- Greek and Roman works of art, literature, philosophy, etc., have an intrinsic interest and quality and represent some of the highest achievements of humankind. Their study is relevant to many issues of contemporary society
- The multi-disciplinary nature of Classical Studies, which combines different areas of study such as history, literature, and art history, leads to a greater understanding of the relationship between different intellectual disciplines and encourages students to make connections between them.

- Roman religion and architecture
- His search for a successor and the legacies of Rome



**Assessment Modes**

Papers	Title	Weight	Length
9274/1	Greek Civilisation	50%	1 hr 30
9274/2	Roman Civilisation	50%	1 hr 30

**Subject Progression**

This course leads to Classical Studies

- Advanced Level (A2) course: 9274

# AS Classical Studies

**Syllabus Code** 9274  
**Prerequisites** 60% in IGCSE English

**Course Content**

**Greek Studies: Alexander the Great**

- His military and political victories
- The defeat of the Persians
- The conquest of Greece, Egypt, India and everywhere in between.
- Greek religion
- The Policy of Fusion and the administration of his huge empire

**Roman Studies: Augustus**

- The first Roman Emperor, his transformation of Rome
- The political and military accomplishments that helped make Rome great
- Augustus' rise to power, his defeat of Antony and Cleopatra

# A2 Classical Studies

**Syllabus Code** 9274  
**Prerequisites** AS Classical Studies

## Course Content

### Classical History: Sources and Evidence

- Emperors and Subjects: Claudius, Nero, Domitian and Trajan
  - The study of Rome's emperors and the actions which impacted on the lives of the citizens of Rome, and the wider Empire
  - The power and position of the Emperor
  - The social structure of Roman society
  - Ruling an empire

### Classical Literature: Sources and Evidence

- Gods and Heroes: the importance of the epic
  - The Iliad: the story of the Trojan War. One of the great books of world literature.
  - The Odyssey: The adventures of Odysseus as he returns home from the Trojan War
  - Achilles, Hector and Odysseus
  - Monsters, gods and epic heroes

## Assessment Modes

Papers	Title	Weight	Length
9274/3	Classical history	50%	1 hr 30
9274/4	Classical literature	50%	1 hr 30

## AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%



# IGCSE Design and Technology

**Syllabus Code** 0455  
**Prerequisites** Nil  
**Additional Costs**

- Students must provide their own laptop for this course.\*
- Adobe software can be leased for an annual fee of \$10

- Design and technology in society
- Aesthetics
- Anthropometrics
- Ergonomics

## Selected option

- Graphic products
  - This area of study is concerned with developing skills used by designers within the context of design activities in the design studio. Additional, it is intended to foster an awareness of the importance of communication techniques concerned with promotion and illustration of ideas and their interrelationship with all stages in commercial manufacture and promotion.

## Syllabus Statement

The Design and Technology syllabus aims to foster awareness, understanding and expertise in those areas of creative thinking which can be expressed and developed through investigation and research, planning, designing and evaluating. It encourages the acquisition of a body of knowledge applicable to solving practical/ technological problems operating through processes of analysis and synthesis. Students develop a range of communication skills which are central to design and evaluation. The syllabus promotes the development of curiosity, enquiry, initiative, ingenuity and resourcefulness. Technological awareness and attitudes of co-operation and social responsibility are fostered. Students learn to make value judgements of an aesthetic, technical, economic and moral nature.

## Assessment Modes

Papers	Assessment Type	Weight	Length
0455/1	Product Design	25%	1 hr 15
0455/5	Graphic Products	25%	1 hr
0455/2	Major Project	50%	Terms 1-3

*Paper 5 is a coursework component for this course.*

## Subject Progression

### This course leads to Design

- Advanced Subsidiary (AS) course: 9705
- Advanced Level (A2) course: 9705



## Course content:

### Common Component

- Design
  - Brief/Specification
  - Identification/research
  - Selection/organisation
  - Evaluation
- Making
  - Implementation and realisation
- Communication
  - Initiation and development of ideas
  - Recording of data
- Knowledge
  - Energy
  - Control
  - Static mechanical control
  - Structure and forces
  - Dynamic mechanical control

\*Students should wait until their entry to this course is confirmed before purchasing a laptop and software.

# AS/A2 Design and Technology

## Syllabus Statement

The Design and Technology syllabus allows progression from the IGCSE course and allows students to develop skills and acquired knowledge. Throughout the course students will be encouraged to expand and sustain their innovation and recognise constraints to produce high quality products. Students foster an awareness of the significance of design and technology upon society. The syllabus promotes the use of information and communications technology and critical evaluation skills in technical, aesthetic, economic, environmental, social and cultural contexts.

# AS Design and Technology

**Syllabus Code** 9705

- Prerequisites**
- 60% in IGCSE Design and Technology or
  - 60% in IGCSE Art & Design

## Course Content

### Common Component

- Designing and Making in Society  
*Designing and making advance daily life, shaping how we work, shop, live, and look, by fostering creative thinking, focused research, and exploring opportunities to meet user and client needs.*
- Industrial and Commercial Practices  
*Designers need knowledge of manufacturing industries, including production stages and quality control, enabling them to transition from creating single products to planning for mass production.*
- Design Communication  
*Effective communication through sketches, notes, models, and digital methods is crucial for designers to develop proposals and detailed drawings for product manufacturing.*
- Creative Thinking  
*Creative thinkers innovate by approaching design problems uniquely, driving improvements and significant advancements by reimagining existing aspects.*

- Sustainable Design  
*Understanding sustainable design principles, material reuse, and recycling helps designers minimize environmental impact through responsible material and energy use during product manufacture and disposal.*
- Emerging Technologies  
*Designers must stay updated on advancements in digital design and manufacturing technologies to understand technological evolution and its impact on product design and manufacturing.*

## Assessment Modes

Papers	Assessment Type	Weight	Length
9705/1	Written Paper	50%	2 hrs 15
9705/2	Major Project	50%	Terms 1–3

## Subject Progression

**This course leads to Design and Technology**

Advanced level (A2) course: 9705

# A2 Design and Technology

**Syllabus Code** 9705

**Prerequisites** AS Design and Technology

## Syllabus Statement

The A2 Design and Technology syllabus allows progression from the AS course and allows students to develop more specialised skills and acquired knowledge. Students are given the opportunity to investigate and develop specialist areas of interest within Design and Technology. Students continue their appreciation of the design process through the significance of their ideas upon society and their critical evaluation of cultural, aesthetic, economic and environmental issues.

## Course Content

- Designing and Making in Society  
*Designing and making advance daily life, shaping how we work, shop, live, and look, by fostering creative thinking, focused research, and exploring opportunities to meet user and client needs.*
- Industrial and Commercial Practices  
*Designers need knowledge of manufacturing industries, including production stages and quality control, enabling them to transition from creating single products to planning for mass production.*
- Design Communication  
*Effective communication through sketches, notes, models, and digital methods is crucial for designers to develop proposals and detailed drawings for product manufacturing.*
- Creative Thinking  
*Creative thinkers innovate by approaching design problems uniquely, driving improvements and significant advancements by reimagining existing aspects.*
- Sustainable Design  
*Understanding sustainable design principles, material reuse, and recycling helps designers minimize environmental impact through responsible material and energy use during product manufacture and disposal.*
- Emerging Technologies  
*Designers must stay updated on advancements in digital design and manufacturing technologies to*

*understand technological evolution and its impact on product design and manufacturing.*

- Additional topics include:  
*Industrial practices Business and commercial practices Quantity production Materials processing in industry Quality systems Digital technology.*



## Assessment Modes

Papers	Assessment Type	Weight	Length
9705/3	Written Paper	50%	2 hrs 30
9705/4	Major Project	50%	Terms 1–3

## AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%

## Coursework

This is a completely new project unrelated to the AS Component 2 coursework. The outcome of this component is a product made from the most appropriate materials available and an understanding of mass manufacture and quality assurance.

# IGCSE Drama

**Syllabus Code** 0411  
**Prerequisites** Nil

Note: this is a new course and will only be offered if a sufficient number of students select it.

## Syllabus Statement

Cambridge IGCSE Drama provides opportunities for learners to develop practical skills in performance, both as an individual and within a group. Learners will understand the artistic choices made by actors, directors and designers in presenting performances for an audience. They will also learn about theatrical styles and genres. Learners will explore how to develop their own ideas in creating original drama.

The course aims to develop: an interest in and an enjoyment of drama and theatre; an understanding of the dramatic process; skills in devising original drama; practical performing skills; an understanding of the role of actor, director and designer and an ability to communicate with an audience.

## Course content:

### Component 1

Component 1 will cover a variety of drama skills and techniques related to devising, rehearsing, staging and performing drama, as follows:

- Performing roles – including use of voice and movement skills, spatial awareness, physicality, pacing and rhythm, interaction with other performers, ways of creating character Nature and functions of organizations and institutions in an economy
- Directing – including advising actors, developing a directorial concept or interpretation, creating mood and atmosphere, use of space and levels, communicating with the audience The individual as producer, consumer and a borrower
- Designing – including the contribution of set, props, lighting, sound, costume and make-up to a performance Role of Government in an economy
- Devising – including use of dialogue and gesture, development of structure, creation of dramatic tension, storytelling (making the narrative clear to the audience), characterisation, use of dramatic contrast and pace, and ensemble.

### Component 2

Component 2 is made up of three compulsory performances: one individual performance and two group performances. All work must be staged in an appropriate performance space and intended for live performance to an audience.

## Assessment Modes

Components	Title	Weight	Length
0411/1	Written Paper	40%	2 hrs 30
0411/2	Coursework	60%	Terms 1–3

## Subject Progression

This course leads to Drama

- Advanced Subsidiary (AS) course 9482
- Advanced Level (A2) course 9482



# AS/A2 Drama

## Syllabus Statement

Cambridge International Drama provides opportunities for learners to develop their skills as theatrical practitioners, engaging with performance texts in practical and creative ways. It fosters engagement with, and enjoyment of, the study of a wide range of theatrical styles and genres. Through their study, learners will develop as skilled, well-informed, reflective practitioners, able to research ideas and create and interpret meaning through drama.

# AS Drama

**Syllabus Code** 9482  
**Prerequisites** 55% in IGCSE English  
**Additional Costs** • Excursions approx. \$60 in total  
 • Costume/Props – approx. \$20 in total

## Course Content

Students focus on three key areas:

1. The exploration, interpretation and analysis of the potential of dramatic texts in a performance context
2. The development of dramatic skills and their application to the process of devising based on a selected stimulus
3. The development of acting skills and their application to scripted performance,

### A Devised Drama

Candidates work in a group to devise and perform a play based on the stimulus prescribed in the syllabus.

Candidates learn to research and explore a stimulus for its dramatic possibilities. To do this, they explore structure and dramatic effectiveness, and create and communicate a role. Students learn to build a sense of ensemble in the performance of their devised piece.

There are two parts to the devising coursework:

- 10–15 minute devised piece
- 3 minute self-evaluation

### A Scripted Performance

Candidates work in a group to devise and perform an extract from a published play of their own choice.

Candidates learn vocal and physical skills, characterisation appropriate to the genre and style of the piece, and how to pace their performance of the extract. Candidates in each group learn to work as part of an ensemble in the performance of their scripted piece. They learn to engage and communicate with the audience.

There is one part to the performing coursework:

- 10–25 minute Scripted Performance

### Written Examination

Candidates develop their knowledge and understanding of drama through the study of published play.

Students learn to explore play extracts in details and to justify their ideas, while taking into account the relationship of the extract to the play as a whole. Candidates learn about performance characteristics of the play's original production period or an appropriate modern revival. They learn about performance of a given role, ensemble and interaction, direction of the scene and appropriate design ideas.

Candidates answer two questions: one question from Section A and one question from Section B. Open-book exam Externally assessed 50% of the AS Level Drama Course.

## Assessment Modes

Components	Title	Weight	Length
9482/1	Written Examination Externally Assessed	50%	2 hrs
9482/2	Practical Drama Coursework	50%	Terms 1–3

## Subject Progression

This course leads to A-Level Drama 9482, subject to sufficient student numbers.



## A2 Drama

### Course Content

#### Theatre-making and performing

The focus of this component is on developing the practical skills of devising a group performance either as performer or designer, and performing individually.

Candidates work in a group to devise a piece of drama which is performed to a live audience. Each group of candidates chooses a theatre practitioner, tradition or style with the support of their teacher. The choice is from a set list and forms the beginning of this work. In devising the group piece, candidates may work as performers or designers. Teachers support candidates in learning performing and design skills. The design skills may be chosen from:

- lighting and/or sound design
- costume and/or mask design
- set and/or prop design.

Candidates work to prepare an individual performance to a live audience. The individual performance is an opportunity for candidates to present a solo performance created from a range of existing written texts that are thematically linked.

#### Theatre in context

Theatre in context

Candidates research an individual area of theatre and drama of their own choice. The focus of their work is on the practicalities of theatre-making and performance.

Candidates explore one from the following:

- performance texts (two) or
- a theatre genre or
- the work of a theatre practitioner (in more than one performance piece) or
- a performance style (as applied across several pieces). They then explore one or more of the following aspects:
  - performance of roles/chorus
  - stage movement/choreography
  - dramatic use of music and/or dance
  - technical/design aspects of production
  - directing
  - production history
  - audience.

### Assessment Modes

Papers	Title	Weight	Length
9482/3	Theatre making and performing	50%	Term 1-3
9482/4	Theatre in context	50%	Term 1-3

### AS/A2 Course weightings

Papers	Weight
AS	50%
A2	50%



## IGCSE Economics

Syllabus Code 0455

Prerequisites Nil

### Syllabus Statement

The aim of the syllabus is to develop a sound knowledge and understanding of economic terms, principles and elementary theory. This involves numeracy and literacy skills, including the ability to handle simple data, graphs and diagrams. Students will be expected to distinguish between facts and judgement in economic issues and be able to participate more fully as consumers and producers in the community. Students should also develop an understanding of developed and developing nations and appreciate the relationships between them.

### Course content:

- The basic economic problem; scarcity and choice
- Nature and functions of organizations and institutions in an economy
- How the market works
- The individual as producer, consumer and a borrower
- The private firm as a producer and employer
- Role of Government in an economy
- Main economic indicators; recent changes and current trends in an economy and their consequences
- Developed and developing Economies
- International aspects of interdependence and possible conflicts between aims of individuals, firms and Government

### Assessment Modes

Papers	Title	Weight	Length
0455/1	Multiple choice	30%	45 mins
0455/2	Structured questions	70%	2 hr 15



\*For students who did not take the IGCSE level of this course

### Subject Progression

This course leads to Economics

- Advanced Subsidiary (AS) course: 9708
- Advanced Level (A2) course: 9708

## AS/A2 Economics

### Syllabus Statement

This syllabus is intended to form a basis of factual knowledge of Economics. It facilitates self-expression, not only in writing but also in using additional aids such as statistics and diagrams. Students should develop a habit of sourcing information and reading critically about the changing economy. Students should recognise the most effective ways to present, discuss and analyse economic data.

## AS Economics

Syllabus Code 9708

Prerequisites • 60% in IGCSE Economics or  
• 55% in IGCSE English\*

### Course Content

- Basic Economic ideas:
  - Scarcity, choice, market and money
- The price system
  - Supply/demand
  - Price elasticity
  - Equilibrium
- Government Intervention in the price system
  - Externalities
  - Social costs
  - Public goods
  - Methods of government intervention
- International trade
  - Absolute and comparative advantage
  - Protectionism versus free trade
  - Balance of payments statistics



- Measurement of the Macro-economy
  - Employment/Unemployment
  - Labour force
  - CPI
- Macro-economic Problems
  - Inflation
  - Balance of payments
  - Foreign exchange rates
- Macro-economic Policies
  - Policies to correct balance, payments or exchange rate problems

### Assessment Modes

Papers	Title	Weight	Length
9708/1	Multiple choice	33%	1 hr
9708/2	Data Response and Structured Essay	67%	2 hr

### Subject Progression

#### This course leads to Economics

- Advanced-Level (A2) course: 9708

## A2 Economics

Syllabus Code **9708**

Prerequisites **AS Economics**

### Course Content

- Basic Economic ideas:
  - Scarcity, choice, market and money (economic efficiency)
- The price system
  - Supply/demand
  - Price elasticity
  - Equilibrium
  - Law of diminishing MU
  - Budget line, cost and revenue curves
  - Diminishing returns labour market
  - Firms in the market
  - Elasticity and revenue curves
  - Firms versus the industry
  - Types of competition
  - Price and non-price competition
  - Performance of the firms
- Government Intervention in the price system
  - Externalities

## A2 Economics (cont.)

- Social costs
- Public goods
- Methods of government intervention
- Efficiency
- Market failure
- Privatisation
- International trade
  - Absolute and comparative advantage
  - Protectionism versus free trade
  - Balance of payments statistics
- Measurement of the Macro-economy
  - Employment/Unemployment
  - Labour force
  - CPI
  - National income statistics
  - Money supply
  - Circular flow
  - Aggregate expenditure function
  - AS and AD
  - Money and credit
  - Market for money
- Macro-economic Problems
  - Inflation
  - Balance of payments
  - Foreign exchange rates
  - Economic growth and development
- Unemployment
- Interrelatedness of macro problems
- Macro-economic Policies
  - Policies to correct balance, payments or exchange rate problems
  - Objectives of policies
  - Fiscal
  - Monetary

### Assessment Modes

Papers	Title	Weight	Length
9708/3	Multiple Choice	17%	1 hr 15
9708/4	Data Response Essays	33%	2 hrs

### AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%



# IGCSE English Language

Syllabus Code **0500**  
Prerequisites **Nil**

Note: the examinations for IGCSE English Language are sat in the May / June Cambridge examination series.

## Syllabus Statement

The English Language Syllabus offers students the opportunity to respond knowledgeably to a rich array of reading passages. Students will use some of these passages to inform and inspire their own writing and write in a range of text types for different audiences. Students also have the opportunity to develop both their speaking and listening skills by presenting to others and responding to feedback and questions. Students are able to develop a range of skills in organising content and adapting their written language to meet the needs of the purpose and audience. Students are encouraged to become appreciative and critical readers, writers, speakers and listeners.

The syllabus aims to enable learners to understand and respond to what they hear, read and experience, as well as to communicate accurately, appropriately, confidently and effectively. In addition, the course will complement students' ability to work with information and ideas in other areas of study, for example, by developing skills of analysis, synthesis and the drawing of inferences. A study of English Language will promote personal development and an understanding of themselves and others.

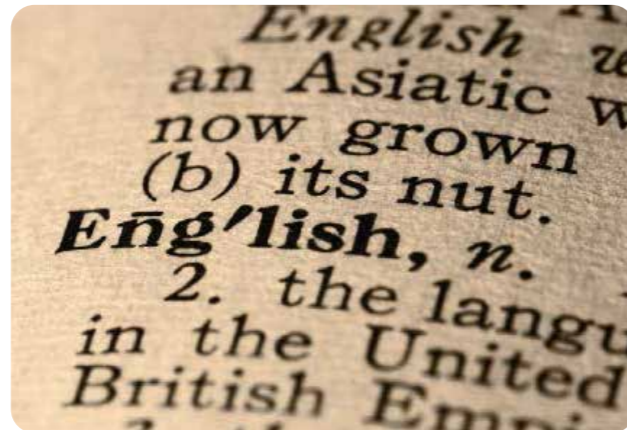
## Course Content

### Reading Passages

- Demonstrate a precise understanding of extended texts
- Synthesise, develop, analyse and evaluate facts, ideas and opinions
- Effectively summarise, paraphrase and re-express
- Demonstrate understanding of how writers achieve their effects
- Recognise and respond to sophisticated linguistic devices
- Extract appropriate information for specific purposes

### Writing

- Express effectively what is thought, felt and imagined
- Order and convey facts, ideas and opinions effectively
- Demonstrate a sophisticated use of imaginative and varied vocabulary
- Demonstrate a clear sense of audience and context
- Demonstrate accuracy in spelling, punctuation and grammar
- Use effectively a variety of sentence structures



## Assessment Modes

Papers	Assessment Type	Weight	Length
0500/1	Reading Passages	50%	2 hrs
0500/2	Directed writing & composition	50%	2 hrs

## Subject Progression

### This course leads to English Language

- Advanced Subsidiary (AS) course: 9093
- Advanced Level (A2) course: 9093

# AS English Language

Syllabus Code **9093**  
Prerequisites **50% in IGCSE English**



## Course Content

Texts will be drawn from a range of English language sources such as advertisements, brochures, leaflets, editorials, news stories, articles, reviews, blogs, investigative journalism, letters, podcasts, (auto) biographies, diaries, essays, scripted speech and narrative/descriptive writing.

### Paper 1 Passages

Students are required to identify features of the text, relate them to the function and context of the writing and comment on aspects such as vocabulary, figurative language, structure, tone and the communication of attitudes, bias or prejudice. In the directed writing tasks, students will write for a specific purpose and/or audience using appropriate vocabulary, tone, and style. They are required to compare their writing to the given text.

### Paper 2 Writing

Students are required to write imaginatively in descriptive and narrative styles and use language for intended effects in conveying mood and character. Students will also write for an intended audience in discursive and argumentative styles, demonstrating they can present a view clearly, construct a strong argument and write coherently and persuasively.

## Assessment Modes

Papers	Title	Weight	Length
9093/1	Passages	50%	2 hrs 15
9093/2	Writing	50%	2 hrs

## Subject Progression

### This course leads to English Language

- Advanced Level (A2) course: 9093

# AS/A2 English Language

## Syllabus Statement

The English Language syllabus aims to encourage a critical and informed response to writing in a range of forms, styles and contexts. It will help students to identify distinguishing features of passages, relate them to the function and context of the writing and organise information in their answers. They should be able to comment on aspects such as vocabulary, figurative language, word-ordering and sentence structure. They should also be able to comment on aspects relating to the communication of attitudes, bias and prejudice.

Successful English language students gain lifelong skills including:

- The ability to write clearly, accurately, creatively and persuasively
- The ability to use appropriate styles and registers for different contexts
- The ability to analyse a variety of complex texts in a variety of forms and styles
- An understanding of language use to inform and persuade.
- The syllabus aims to develop:
  - A critical and informed response to texts in a range of forms, styles and contexts
  - The interdependent skills of reading, analysis and research
  - Effective, creative, accurate and appropriate communication
  - A firm foundation for further study of language and linguistics.

## A2 English Language

Syllabus Code **9093**

Prerequisites **AS English Language**

### Course Content

The areas of study are Text Analysis and Language Topics.

#### Text Analysis

Text analysis is a continuation of the skills focussed on in AS Language with the addition of Spoken Language.

Candidates are required to identify and analyse child language acquisition and language change.

Students will also be required to relate these features to the function and context of the text(s) and organise information coherently in their answers.

#### Language Topics

Students study two topic areas which they are then examined on.

Topic A: English as a global language

Relevant areas for study include:

- Issues arising from differing ideas of 'world'/'global'/'international' English
- The local status of English – as an 'official' (second) language
- 'Englishes' – standard and non-standard varieties
- Cultural effects – especially British vs. American English
- Language death

These areas are not exclusive.

- Topic B: Language and the self

Relevant areas for study include:

- Ideolect
- Sociolect
- Language and Thought
- Language and Social Identity
- Accents
- Dialects

### Assessment Modes

Papers	Title	Weight	Length
9093/3	Text Analysis	50%	2 hrs 15
9093/4	Language Topics	50%	2 hrs 15

### AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%



## IGCSE English Literature

Syllabus Code **0475**

Prerequisites **Nil**

### Syllabus Statement

The syllabus enables students to read, interpret and evaluate texts through the study of literature in English. Students develop an understanding of literal meaning, relevant contexts and of the deeper themes or attitudes that may be expressed. Through their studies, they learn to recognise and appreciate the ways in which writers use English to achieve a range of effects, and will be able to present an informed, personal response to the material they have studied. The syllabus also encourages the exploration of wider and universal issues, promoting students' better understanding of themselves and of the world around them.

### Course Content

Texts from each of the following three categories are studied:

- Poetry
- Prose
- Drama

The aim is to develop students who:

- Enjoy the experience of reading literature
- Understand and respond to literary texts in different forms and from different periods and cultures
- Communicate an informed personal response appropriately and effectively

- Appreciate different ways in which writers achieve their effects
- Experience literature's contribution to aesthetic, imaginative and intellectual growth
- Explore the contribution of literature to an understanding of areas of human concern

### Assessment Modes

Papers	Assessment Type	Weight	Length
0475/1	Poetry & prose	50%	1 hr 30mins
0475/2	Drama	50%	1 hr 30mins

### Subject Progression

This course leads to English Literature

- Advanced Subsidiary (AS) course: 9695
- Advanced Level (A2) course: 9695





# AS/A2 English Literature

## Syllabus Statement

The Literature in English Syllabus encourages an appreciation of, and an informed personal response to, literature in a range of texts in different forms, and from different periods and cultures. Students will further develop the interdependent skills of reading, analysing and effective communication. The course promotes wider reading and an understanding of how it may contribute to the student's own personal development.

Students develop the ability to respond to texts in the three main forms (Prose, Poetry and Drama) and understand the ways in which writers' choices of form, structure and language shape meaning. The ability to produce informed, independent opinions and judgements on literary texts, and to communicate clearly the knowledge, understanding and insight relating to literary study is also promoted.

## Assessment Modes

Papers	Title	Weight	Length
9695/1	Drama and Poetry	50%	2 hrs
9695/2	Prose and Unseen	50%	2 hrs

## Subject Progression

This course leads to English Language

- Advanced Level (A2) course: 9695

# AS English Literature

<b>Syllabus Code</b>	<b>9695</b>
<b>Prerequisites</b>	50% in IGCSE English Literature

## Course Content

Students will study three set texts and prepare for one unseen text

### Drama and Poetry

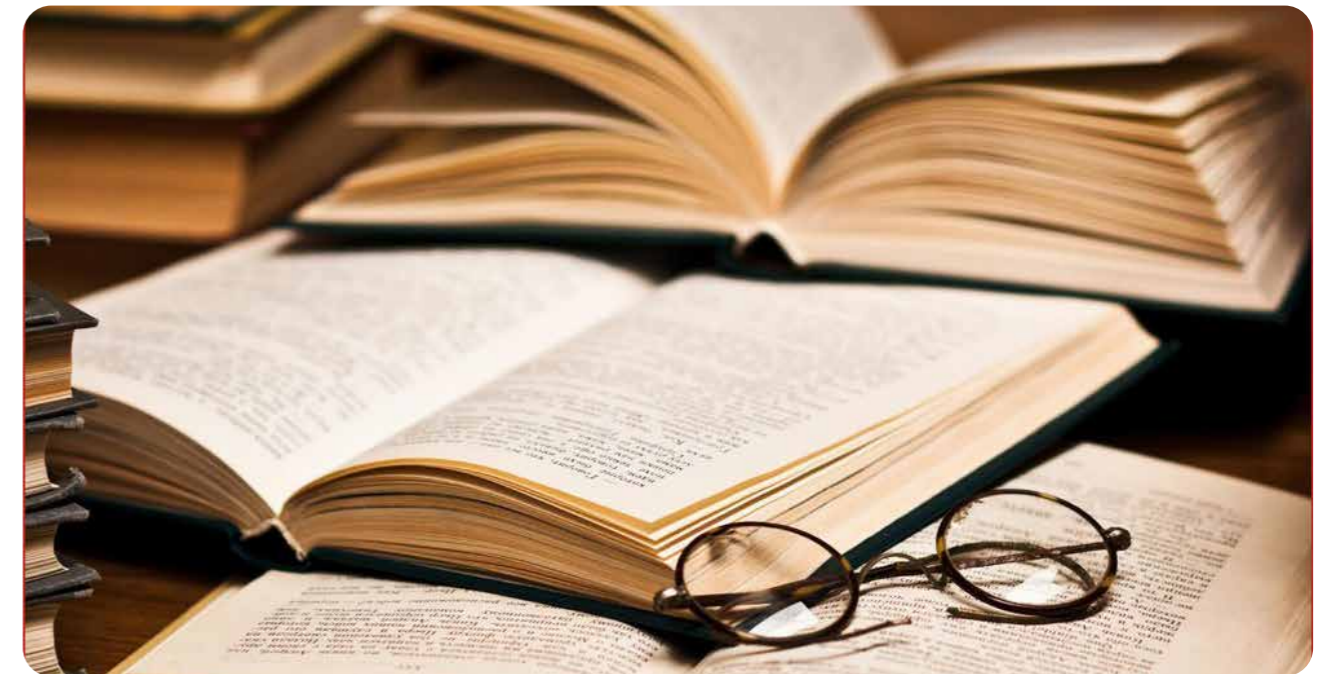
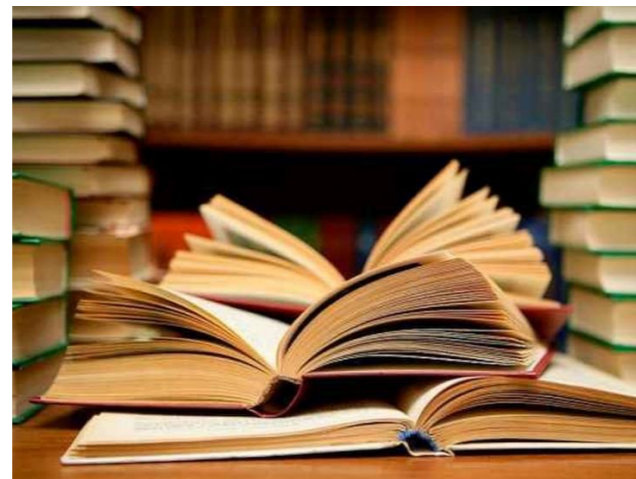
Students will study one Drama text and a poems from one poet.

### Prose and Unseen

Students study the prose text and will respond to one unseen text that may be poetry, prose or drama.

Content includes:

- Developing responses to show understanding and informed, independent opinion and communicating these clearly
- The style and language of texts
- The ways in which form, structure and language shape meaning.



# A2 English Literature

<b>Syllabus Code</b>	<b>9695</b>
<b>Prerequisites</b>	AS English Literature

## Course Content

Having studied English for a number of years it is now time to enjoy the challenge of completing the full A-Level Course while gaining an appreciation of an even broader range of outstanding literature.

The English Literature A-Level Course is designed to increase students' knowledge of the texts, their contexts and their crafting as well as allowing them to explore the different ways in which the characters and themes can be interpreted. Developing a personal response is what makes studying literature at this level so liberating, satisfying and exciting. The ability to appreciate and discuss varying opinions of literary works is also promoted.

There are two vital ingredients to developing informed personal responses:

### 1) Knowledge

To make an informed response to the content and context of the text

### 2) Confidence

To appreciate, value and trust individuals' responses and enjoy arguing a case in an assertively composed essay.

## Assessment Modes

Papers	Title	Weight	Length
9695/3	Shakespeare and Drama	50%	2 hrs
9695/4	Pre - and Post - 1900 Poetry and Prose	50%	2 hrs

## AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%

# IGCSE Geography

<b>Syllabus Code</b>	<b>0460</b>
<b>Prerequisites</b>	Nil
<b>Additional Costs</b>	Field trip ~ TBA

## Syllabus Statement

Students are encouraged to develop a sense of place and an understanding of relative location on a local, regional and global scale. Through a study of the characteristics and distribution of a selection of contrasting physical and human environments, students will come to understand some of the processes which affect the development of these environments. They will gain an insight into the spatial effects of the ways in which people interact with each other and with their environments. Together with a wider understanding of different communities and culture through the world, students will come to appreciate the contrasting opportunities and constraints presented by different environments.

## Course Content

### Paper 1

#### Theme 1 - Population and Settlement

- Population dynamics, types of settlement.

#### Theme 2 - The Natural Environment

- Volcanoes and earthquakes
- Rivers and coasts
- Weather, climate and natural vegetation

#### Theme 3 - Economic Development

- Development
- Food production and industry
- Tourism
- Energy and water
- Environmental risks of economic development

### Paper 2

- Geographical Skills

### Paper 4 – Alternative to coursework

## Assessment Modes

Papers	Assessment Type	Weight	Length
0460/1	Geographical Themes	45%	1 hr 45
0460/2	Geographical Skills	27.5%	1 hr 30
0460/4	Alternative to coursework	27.5%	1 hr 30

## Subject Progression

### This course leads to Geography

- Advanced Subsidiary (AS) course: 9696
- Advanced Level (A2) course: 9696

# AS/A2 Geography

## Syllabus Statement

Geography occupies a pivotal position in the understanding and interpretation of social, economic, political and environmental conditions and change, both spatial and temporal. The syllabus encourages geographers to become aware of the specific contribution which they can make to the understanding of contemporary issues and to the understanding of the complexity of natural systems, their linkages and their impact upon the human race. Equally as important is an understanding of the impact of the human race upon the environment and how this impact can be managed in achieving sustainable development. The study of the environment is rooted in an understanding of physical processes, whilst throughout the syllabus the emphasis is on the study of real examples to illustrate the variety and complexity of human and physical environments.



# AS Geography

<b>Syllabus Code</b>	<b>9696</b>
<b>Prerequisites</b>	• 60% in IGCSE Geography or • 60% in IGCSE English*
<b>Additional Costs</b>	Field trip ~ TBA

## Course Content

### Physical Core topics

- Hydrology and Fluvial Geomorphology
  - Drainage basin
  - Rainfall
  - River channel processes and landforms
  - Human impact (case study)
- Atmosphere and Weather
  - Energy budgets
  - Earth-Atmosphere energy budget
  - Human impacts (case study)
- Rocks and Weathering
  - Elementary plate tectonics
  - Weathering and rocks
  - Human impacts (case study)

### Human Core topics:

- Population Change
  - Natural increase of population
  - Management of population change
  - Management of natural increase (case study)
- Settlement Dynamics
  - Relationships between settlements
  - Changes in rural settlements
  - The changing structure of urban settlements
- Migration
  - Understanding the reasons why people move within/between countries
  - Migration impacts
  - Management of international migration (case study)

## Assessment Modes

Papers	Title	Weight	Length
9696/1	Core Physical Geography	50%	1 hr 30
9696/2	Core Human Geography	50%	1 hr 30



## Subject Progression

### This course leads to Geography

- Advanced Level (A2) course: 9696

# A2 Geography

**Syllabus Code** 9696  
**Pre-requisites** AS Geography  
**Additional Costs** Field trips ~ TBA

## Course Content

### Coastal Environments

- Wave and marine processes
- Coastal landforms of cliffed and constructive coasts
- Coral reefs
- Sustainable management of coasts

### Hazardous Environments

- From crustal (tectonic) movement
- From atmospheric disturbances
- From mass movements
- Sustainable management in hazardous environments

### Advanced Human Geography Environmental Management

- Sustainable energy supplies
- Management of energy supply
- Environmental degradation
- Management of degraded environment

### Global Interdependence

- Trade flows and trading patterns
- The management of international trade
- The development of international tourism
- The management of a tourist destination

## Assessment Modes

Papers	Title	Weight	Length
9696/3	Advanced Physical Geography	50%	1 hr 30
9696/4	Advanced Human Geography	50%	1 hr 30

## AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%



# IGCSE History

**Syllabus Code** 0470  
**Pre-requisites** Nil

## Syllabus Statement

The History Syllabus offers students the opportunity of studying some of the major international issues of the nineteenth and twentieth centuries, as well as looking in somewhat depth at the history of particular regions. However, the emphasis within the syllabus is as much on the development of historical skills as on the acquisition of knowledge.

The syllabus will promote an understanding of the nature of cause and consequence, continuity and change, similarity and difference, based on an appreciation of the nature and use of historical evidence. The syllabus aims to stimulate students' interest in and enthusiasm about the past, and to provide a sound basis for further study and the pursuit of personal interests.

## Course Content

The students have to look at two aspects of History: An Overview topic and a detailed topic (Depth Topic)

### International Relations 1919 – 1991 (Overview Topic)

- Was the treaty of Versailles fair?
- To what extent was the League of Nations a success?
- How far was Hitler's foreign policy to blame for the outbreak of war in 1939?
- How effectively did the USA contain the spread of Communism?
- How secure was the USSR's control over Eastern Europe, 1948 – c. 1989?

### Germany 1919 - 1945 (Depth Topic)

- Was the Weimar Republic doomed from the start?
- Why was Hitler able to dominate Germany by 1934?
- The Nazi regime

## Assessment Modes

Papers	Assessment Type	Weight	Length
0470/1	Core Content and Depth Study	40%	2 hrs
0470/2	Selected Option Topic	30%	1 hr 45mins
0470/4	Alternative to coursework	30%	1 hr

## Subject Progression

### This course leads to History

- Advanced Subsidiary (AS) course: 9389
- Advanced Level (A2) course: 9389



## AS/A2 History

### Syllabus Statement

The Cambridge Assessment History syllabus develops:

- An interest in the past and an appreciation of human endeavour
- 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 judgements on issues
- An empathy with people living in different places and at different times
- A firm foundation for further study of History

- What were the aims and outcomes of reconstruction?
- How successful was reconstruction?

#### The Gilded Age and Progressive Era, 1870's-1920

- Why was the late nineteenth century an age of rapid industrialisation?
- How significant were the consequences of rapid economic growth in the late nineteenth century?
- What were the main aims and policies of the Progressive Movement and how popular were they?
- How successful was the Progressive Movement up to 1920?

#### The Great Crash, the Great Depression and the New Deal policies, 1920's-1941

- What were the causes of the Great Crash?
- What were the causes and impacts of the Great Depression?
- How effective were Roosevelt's strategies to deal with the domestic problems facing the USA in the 1920's?
- Why was there opposition to the New Deal policies and what impact did it have?

## AS History

**Syllabus Code** 9489  
**Prerequisites** • 60% in IGCSE History or  
 • 60% in IGCSE English\*

### Course Content

American Option: The History of the USA, 1820-1941

#### The Origins of the Civil War, 1820-1861

- How was the issue of slavery addressed between 1820 and 1850?
- How and why did sectional divisions widen between 1850-1856?
- Why did the Republicans win the 1860 presidential election?
- Why did the Civil War begin in April 1861?

#### Civil War and Reconstruction, 1861-1877

- Why did the Civil War last four years?
- How significant was the immediate impact of the Civil War (1861-1865)?

### Assessment Modes

Papers	Title	Weight	Length
9489/1	Document Question	40%	1 hr 15
9489/2	Outline Study	60%	1 hr 45

### Subject Progression

This course leads to History

- Advanced Level (A2) course: 9489



## A2 History

**Syllabus Code** 9489  
**Prerequisites** AS History

### Course Content

#### Component 3: The Origins and Development of the Cold War

This topic covers the following events and developments in the evolution of the Cold War in Europe, 1941-50

- Tensions in the wartime alliance against the Axis powers
- Peace-making at the end of the Second World War
- Increasing tensions in a divided Europe
- The Truman doctrine and the Marshall Plan
- The Berlin Blockade and Airlift

#### Component 4: International History 1945-1992

##### Theme 1: US-Soviet Relations during the Cold War 1950-1991

- How did US-Soviet relations develop between 1950 and 1980?
- Why was there a crisis over Cuba in the 1960's and how did it affect US-Soviet relations?
- How did the arms race affect US-Soviet relations?
- Why did the Cold War come to an end in 1991?

#### Theme 2: The spread of communism in East and Southeast Asia, 1945-1991

- What was the impact of the end of the Second World War on this region?
- Why was there a war in Korea and what were its consequences?
- Why did the US intervene in Vietnam and what were the consequences?
- How did the Cold War affect Sino-Soviet relations?

### Assessment Modes

Papers	Title	Weight	Length
9489/3	Interpretation Question	40%	1 hr 15
9489/4	Essay Question	60%	1 hr 45

### AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%

# IGCSE Information Technology (IT)

**Syllabus Code** 0417

**Prerequisites** Nil

**Additional Costs**

- Students must provide their own laptop for this course\*
- The laptop must run the MS Windows 7 or Windows 8 operating system
- Windows 7 or 8 can be purchased for ~\$140^
- MS Office is available for students to download free of charge from MyACG

## Notes

- ^Students that own an Apple MacBook computer need to install the MS Windows operating system (using BootCamp to dual boot) in addition to obtaining MS Office above.
- ^Apple owners should ask for guidance from their teacher.

## Syllabus Statement

The Information Technology syllabus offers a course containing a combination of theoretical and practical studies focusing on the ability to use common software applications, including word processing, spreadsheets, databases, interactive presentation software, electronic mail, web browsers and website design.

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. They will find that their developing Information Technology skills are useful to them in their work across the curriculum, and prepare them for future employment.

## Course Content

The curriculum content is set out in 21 interrelated sections. These sections should be read as an integrated whole and not as a progression. The sections are as follows:

**Unit 1:** Types and components of computer systems

**Unit 2:** Input and output devices

**Unit 3:** Storage devices and media

**Unit 4:** Networks and the effect of using them

**Unit 5:** The effects of using IT

**Unit 6:** IT applications

**Unit 7:** The systems life cycle

**Unit 8:** Safety and security

**Unit 9:** Audience

**Unit 10:** Communication

**Unit 11:** File management

**Unit 12:** Images

**Unit 13:** Layout

**Unit 14:** Styles

**Unit 15:** Proofing

**Unit 16:** Graphs and charts

**Unit 17:** Document production

**Unit 18:** Data manipulation

**Unit 19:** Presentations

**Unit 20:** Data analysis

**Unit 21:** Web authoring

Candidates should be familiar not only with the types of software available and the range of Information Technology knowledge and skills detailed, but also with their uses in practical contexts.

The course does require independent working and discipline outside the classroom, particularly in learning the theory part of the course.

## Assessment Modes

Papers	Title	Weight	Length
0417/1	Written Theory	40%	2 hrs
0417/2	Practical Test 02	30%	2 hrs 30
0417/3	Practical Test 03	30%	2 hrs 30

## Subject Progression

**This course leads to IT**

- Advanced Subsidiary (AS) course: 9626

OR

**Computer Science**

- Advanced Subsidiary (AS) course: 9618
- Advanced Level (A2) course: 9618

# AS Information Technology (IT)

**Syllabus Code** 9626

**Prerequisites**

- 60% in IGCSE IT or
- 60% in IGCSE English\* or
- 60% in IGCSE Mathematics\*

**Additional Costs**

- Students must provide their own laptop for this course. The laptop must run MS windows 8 or 10 operating system.

## Notes

- Information Technology is not available at A2 level. 2024 Year 12 students wishing to gain a full A Level qualification in IT/Computing should take AS Computer Science in 2024 and A2 Computer Science in 2025.
- AS Information Technology examinations cannot be taken in the same examination session as AS or A2 Computer Science examinations. See Mr Ranjan for further details about this.
- ^Apple MacBook computers are not recommended for this course.
- ^Apple owners who already have MS Windows 10 installed should ask for guidance from their teacher.

## Syllabus Aims

- Develop a broad range of IT skills
- Develop an understanding of the parts, use and applications of IT systems within a range of organisations, including the use of basic computer networks
- Develop an understanding of how IT systems affect society in general
- Develop an understanding of the main system life cycle and apply this understanding to workplace situations
- Develop a broad knowledge of the use of IT in workplace situations
- Be aware of new and emerging technologies
- Be aware of the role of the Internet and its potential but also its risks

## Course Content

The theory sections are as follows:

- 1: Data, processing and information
- 2: Hardware and software
- 3: Monitoring and control
- 4: Algorithms and flow charts
- 5: eSecurity
- 6: The digital divide
- 7: Expert systems

The practical sections are as follows:

- 8: Spreadsheets
- 9: Modelling
- 10: Database and file concepts
- 11: Sound and video editing

Candidates should be familiar not only with the types of software available and the range of Information Technology knowledge and skills detailed, but also with their uses in practical contexts.

## Assessment Modes

Papers	Title	Weight	Length
9626/1	Written Examination	50%	1 hr 45
9626/2	Practical Test	50%	2 hrs 30

The practical paper comprises a number of tasks to be taken under controlled conditions. The written paper tests all sections from both theory and practical sections (1 to 11).

## Subject Progression

**A2 Information Technology (9626) is NOT available.** 2024 students wishing to gain a full A Level qualification in IT/computing should take AS Computer Science in 2024 and A2 Computer Science in 2025.

# AS/A2 Computer Science

## Syllabus Statement

The Computer Science syllabus encourages learners to meet the needs of Higher Education courses in computer science as well as twenty-first century digital employers. It encourages learners to think creatively, through applying practical programming solutions, demonstrating that they are effective users of technology.

Students develop an understanding of the organisation of computer systems including software, data, hardware, communications and people. They acquire the skills necessary to apply this understanding to developing computer-based solutions to problems.

## AS Computer Science

<b>Syllabus Code</b>	<b>9618</b>
<b>Pre-requisites</b>	<ul style="list-style-type: none"> <li>• 65% in IGCSE IT or</li> <li>• 70% in IGCSE Mathematics*</li> </ul>
<b>Additional Costs</b>	<ul style="list-style-type: none"> <li>• Students must provide their own laptop for this course.**</li> </ul>

## Notes

- 2024 Year 12 students wishing to gain a full A Level qualification in IT/Computing should take AS Computer Science (9618) in 2024 and A2 Computer Science (9618) in 2025. (Full A Levels in IT Information Technology 9626 is not available).
- AS Information Technology (9626) examinations cannot be taken in the same examination session as AS or A2 Computer Science (9618) examinations.

## Course content

### Section 1: Theory Fundamentals

- Information Representation
- Communication
- Hardware
- Processor Fundamentals
- System Software
- Security, Privacy & Data Integrity
- Ethics and Ownership
- Databases

### Section 2: Fundamental Problem-solving and Programming

- Algorithm Design & Problem-solving
- Data Types and Structures
- Programming
- Software Development

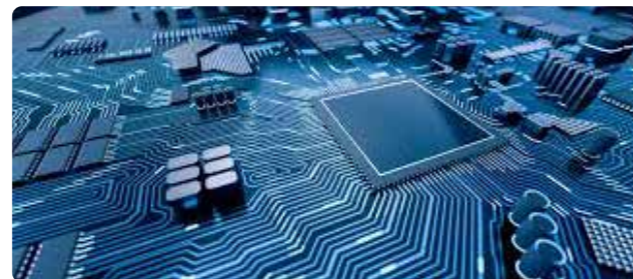
## Assessment Modes

Papers	Title	Weight	Length
9618/1	Theory Fundamentals	50%	1 hr 30
9618/2	Fundamental Problem Solving and Programming Skills	50%	2 hrs

## Subject Progression

### This course leads to A2 Computer Science

- Advanced A Level course: 9618



# A2 Computer Science

<b>Syllabus Code</b>	<b>9618</b>
<b>Prerequisites</b>	AS Computer Science
<b>Additional Costs</b>	<ul style="list-style-type: none"> <li>• Students must provide their own laptop for this course.</li> </ul>

## Notes

- 2024 Year 12 students wishing to gain a full A Level qualification in IT/Computing should take AS Computer Science (9618) in 2024 and A2 Computer Science (9618) in 2025. (Full A Levels in IT Information Technology 9626 is not available).
- AS Information Technology (9626) examinations cannot be taken in the same examination session as AS or A2 Computer Science (9618) examinations.

- an understanding of the component parts of computer systems and how they interrelate, including software, data, hardware, communication and people
- an understanding of the different methods of communication and the functionality of networks and the internet
- the skills necessary to apply this understanding to develop computer based solutions to problems

## Assessment Modes

Papers	Title	Weight	Length
9618/3	Advanced Theory	50%	1 hr 30
9618/4	Practical	50%	2 hr 30

## AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%

## Course content

### Section 3: Advanced Theory

- Data Representation
- Communication and Internet Technologies
- Hardware and Virtual Machines
- System Software
- Security
- Artificial Intelligence

### Section 4: Further Problem-solving and Programming skills

- Computational Thinking & Problem-solving
- Further Programming

## Course Aims

The aims of this course are to enable students to develop:

- computational thinking skills
- an understanding of the main principles of solving problems using computers

# IGCSE Mathematics

Syllabus Code **0580**  
Pre-requisites **Nil**

## Syllabus Statement

Students are encouraged to develop their mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment. They will develop a feel for numbers and for patterns and relationships in Mathematics. There is a strong emphasis on solving problems and presenting and interpreting results. Students will be encouraged to communicate clearly and reason logically using mathematical concepts. The Mathematics Syllabus aims to encourage students to make use of Mathematics in other subjects and to provide a firm foundation for the study of Mathematics and other disciplines.

## Course Content

- Number, set notation and language
- Squares, powers and roots
- Directed numbers
- Vulgar and decimal fractions and percentages
- Ordering and standard form
- Estimation and limits of accuracy
- Ratio, proportion, rate.
- Use of an electronic calculator
- Measures and time
- Money
- Graphs in practical situations
- Graphs of functions and straight line graphs
- Algebraic representation and formulae
- Algebraic manipulation, functions and indices
- Solutions of equations and inequalities
- Linear programming geometrical terms and relationships
- Geometrical constructions and symmetry
- Angle properties
- Mensuration and trigonometry
- Statistics and probability
- Vectors in two dimensions and matrices
- Transformations
- Surds



## Assessment Modes

### Core Curriculum

Papers	Assessment Type	Weight	Length
0580/1	Non-calculator	50%	1 hr 30
0580/3	Calculator	50%	1 hr 30

### Extended Curriculum

Papers	Assessment Type	Weight	Length
0580/2	Non-calculator	50%	2 hrs
0580/4	Calculator	50%	2 hrs

## Subject Progression

### This course leads to Mathematics

- Advanced Subsidiary (AS) course: 9709
- Advanced-Level (A2) course: 9709

# AS/A2 Mathematics

## Syllabus Statement

The Mathematics Syllabus encourages students to develop their mathematical knowledge and skills in a way which builds confidence and provides satisfaction and enjoyment. An understanding of mathematical principles is developed, as is an appreciation of mathematics as a logical and coherent subject. Students acquire a range of mathematical skills, particularly those which will enable them to use applications of mathematics in the context of everyday situations and of other subjects which they may be studying. The ability to analyse problems logically, recognise when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve the problem are skills which are developed.

# AS Mathematics

Syllabus Code **9709**  
Prerequisites **70% in IGCSE Extended Mathematics<sup>^</sup>**

## <sup>^</sup>Note

Advanced Mathematics students in Year 11 (2024) will need to achieve a specified mark (to be advised early in term 3 2024) in the ACG Strathallan 2024 Term 3 AS Mathematics examination before they are entered for the November Cambridge AS examination.

## Course Content

### Unit P1: Pure Mathematics 1

- Quadratics
  - Completing the square
  - Solving
  - Discriminants and nature of the roots
  - Simultaneous equations
- Functions
  - Inverse functions
  - Composite functions
- Coordinate geometry
  - Length, gradient and midpoint of a line
  - Equations of lines

- Perpendicular and parallel lines
- Circular measure
  - Radians
  - Arc length
  - Sector area
- Trigonometry
  - Graphing trigonometric functions
  - Exact values
  - Trigonometric inverses
  - Trigonometric identities
  - Solutions to trigonometric equations
- Series
  - Binomial expansions
  - Arithmetic and geometric progressions
- Differentiation
  - Polynomials
  - Chain rule
  - Geometric applications
  - Practical applications
- Integration
  - Polynomials  $\int(ax+b)^n$  for  $n \neq -1$
  - Finding equations of curves
  - Definite integrals
  - Areas under curves
  - Volumes of revolution

### Unit S1: Probability and Statistics

- Representation of data
  - Stem-and-leaf
  - Box-and-whisker
  - Histogram and cumulative frequency graphs
  - Measures of central tendency and variation
- Permutations and combinations
- Probability
  - Equiprobable events
  - Exclusive and independent events
  - Conditional probability
- Discrete random variables
  - Probability distributions
  - Expected value and variance
  - Binomial distribution
  - Geometric distribution

- The normal distribution
  - Modelling random variables and calculating probabilities
  - The normal approximation to the binomial distribution

**Assessment Modes**

Papers	Title	Weight	Length
9709/1	Pure Mathematics 1	60%	1 hr 50
9709/5	Probability and Statistics 1	40%	1 hr 15

**Subject Progression**

**This course leads to Mathematics**

- Advanced-Level (A2) course: 9709
  - Mathematics with Statistics OR
  - Mathematics with Mechanics

# A2 Mathematics with Statistics

**Syllabus Code** 9709  
**Prerequisites** • AS Mathematics

**Course Content**

**Unit P3: Pure Mathematics 3**

- Algebra
  - Absolute value
  - Division of polynomials
  - Factor and remainder theorems
  - Partial fractions
  - Binomial expansions
- Logarithms and exponentials
  - Laws and properties
  - Solving index equations
  - Log modelling
- Trigonometry
  - The six trig ratios
  - Trigonometry identities

- Double angles
  - Sums of trigonometry terms
  - Differentiation
    - $e^x$ ,  $\ln x$ ,  $\sin x$ ,  $\cos x$  and  $\tan x$  sums
    - Multiples
    - Composites
    - Products
    - Quotients
    - Parametric and implicit differentiation
  - Integration
    - Use of trig identities
    - Rational functions
    - Integration by parts
    - Integration by substitution
    - Definite and indefinite integration
    - The trapezium rule
  - Numerical solution of equations
    - Graphical approach
    - Use of iterative formulae
  - Vectors
    - Parallel, intersecting or skew lines
    - The angle between two lines
    - The point of intersection of two lines
    - Distances and angles between points
  - Differential equations
    - Formulate and solve Differential equations
    - Use an initial condition to find a particular solution
    - Interpret the solution of a Differential equation
  - Complex Numbers
    - Definitions
    - Arithmetic with complex numbers
    - Cartesian and polar form
    - Conjugates
    - Argand diagrams
    - Complex solutions to polynomials
    - Complex loci
- Unit S2: Probability and Statistics 2**
- Poisson distribution
    - The Poisson model
    - Calculating probabilities
    - Mean and variance

- Poisson approximation to the binomial
- Normal approximation to the Poisson
- Linear combinations of random variables
- Continuous random variables
  - Probability density function
  - Mean and variance
- Sampling and estimation
  - Definitions
  - Sampling methods
  - Sample means
  - The Central Limit theorem
  - Calculating estimates of population mean and variance from a sample
  - Confidence intervals
- Hypothesis tests
  - One-tailed and two-tailed tests
  - Null and alternative hypothesis
  - Significance level
  - Rejection and acceptance region
  - Hypothesis testing using binomial or Poisson data or a normal approximation, as appropriate

**Assessment Modes**

Papers	Title	Weight	Length
9709/3	Pure Mathematics 3	60%	1 hr 50
9709/6	Probability and Statistics 2	40%	1 hr 15

**AS/A2 course weightings**

Course	Proportion of overall A-Level grade
AS	50%
A2	50%

# A2 Mathematics with Mechanics

**Syllabus Code** 9709  
**Prerequisites** • AS Mathematics

**Course Content**

**Unit P3: Pure Mathematics 3**

- Algebra
  - Absolute value
  - Division of polynomials
  - Factor and remainder theorems
  - Partial fractions
  - Binomial expansions
- Logarithms and exponentials
  - Laws and properties
  - Solving index equations
  - Log modelling
- Trigonometry
  - The six trig ratios
  - Trigonometry identities
  - Double angles
  - Sums of trigonometry terms
- Differentiation
  - $e^x$ ,  $\ln x$ ,  $\sin x$ ,  $\cos x$  and  $\tan x$  sums
  - Multiples
  - Composites
  - Products
  - Quotients
  - Parametric and implicit differentiation
- Integration
  - Use of trig identities
  - Rational functions
  - Integration by parts
  - Integration by substitution
  - Definite and indefinite integration
  - The trapezium rule
- Numerical solution of equations
  - Graphical approach
  - Use of iterative formulae



- Vectors
  - Parallel, intersecting or skew lines
  - The angle between two lines
  - The point of intersection of two lines
  - Distances and angles between points
- Differential equations
  - Formulate and solve Differential equations
  - Use an initial condition to find a particular solution
  - Interpret the solution of a Differential equation
- Complex Numbers
  - Definitions
  - Arithmetic with complex numbers
  - Cartesian and polar form
  - Conjugates
  - Argand diagrams
  - Complex solutions to polynomials
  - Complex loci

**Unit M1: Mechanics**

- Forces and equilibrium
  - Identify the forces acting in a given situation,
  - Components and resultant forces; forces in equilibrium
  - Normal contact force and frictional force
  - Limiting  $F = \mu R$  or  $F \leq \mu R$
  - Apply Newton's third law of motion
- Kinematics of motion in a straight line
  - The relationship between distance, displacement, speed, velocity and acceleration
  - Graphs showing these relationships
  - Use differentiation and integration with respect to time to solve simple problems
  - Use appropriate formulae for motion with constant acceleration in a straight line
- Newton's laws of motion
  - Apply Newton's laws of motion to the linear motion of a particle of constant mass
  - Use the relationship between mass and weight
  - Solve simple problems which may be modelled as the motion of a particle moving vertically or on an inclined plane with constant acceleration
  - Solve simple problems which may be modelled as the motion of two particles, connected by a light inextensible string which may pass over a fixed smooth peg or light pulley

- Energy, work and power
  - Understand the concept of and calculate the work done by a force
  - Gravitational potential energy and kinetic energy
  - Change in energy of a system and the work done by the external forces
  - The principle of conservation of energy
  - Power as the rate at which a force does work
  - The relationship between power, force and velocity

**Assessment Modes**

Papers	Title	Weight	Length
9709/3	Pure Mathematics 3	60%	1 hr 50
9709/4	Mechanics	40%	1 hr 15

**AS/A2 course weightings**

Course	Proportion of overall A-Level grade
AS	50%
A2	50%

**IGCSE Music**

**Syllabus Code** 0410

**Prerequisites** Be able to demonstrate a skill level of Grade 2+ or three years of private lessons in one or more of the following:

- Piano/Keyboard
- Guitar
- String instrument
- Wind instrument/brass
- Drums or
- Singing

**Additional Costs**

- All instrumental candidates are expected to have their own instrument at home
- All candidates are expected to have a chosen professional tutor to learn from throughout the year

2. Identify and comment on a range of traditional music from non-western cultures.

**Composition**

Learn to use computer technology to create a folio of no less than two compositions.

**Assessment Modes**

Papers	Title	Weight	Length
0410/2	Performance - Coursework	30%	-
0410/3	Composition - Coursework	30%	-
0410/1	Listening	40%	1 hr 15

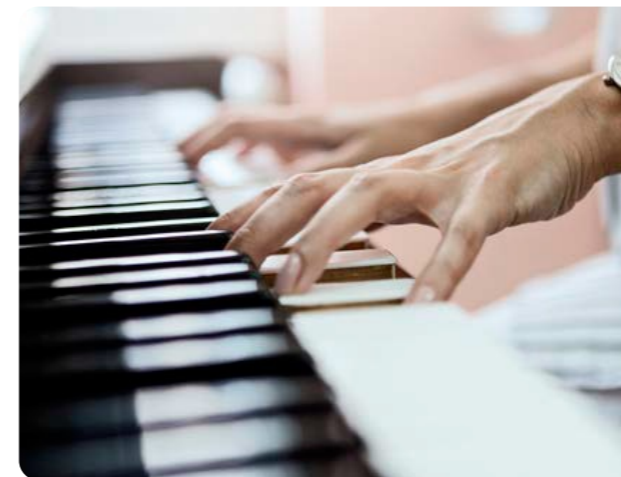
**Coursework**

- Submit a folio of two compositions
- Prepare a solo performance and an ensemble performance

**Subject Progression**

**This course leads to Music**

- Advanced Subsidiary (AS) course: 9483
- Advanced Level (A-Level) course: 9483



**Syllabus Statement**

Students further develop their musical skills through listening, composition and performance.

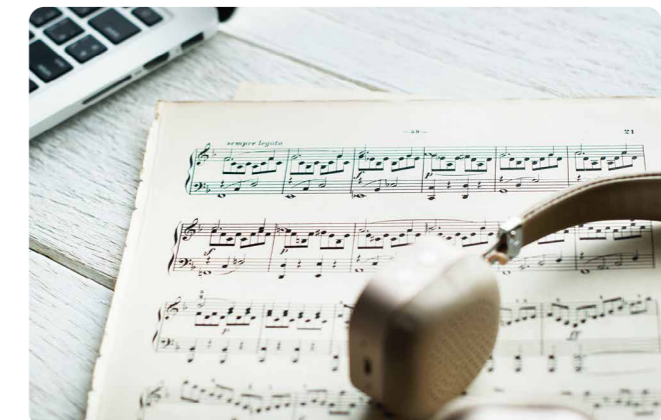
**Course content**

**Performance:**

Perform solos and ensemble pieces of music

**Listening**

1. An overview of Western European music and focused study of one prescribed work



## AS Music

**Syllabus Code** 9483

**Prerequisites**

- 60% in IGCSE Music or
- Special permission (based on playing skills of at least one instrument) from Music teacher

### Syllabus Statement

Students will develop creative and interpretative skills through performing and/or composition. They will also develop an aural appreciation of music of the western tradition with focussed study of a number of set works.

### Course content

#### Listening

Students will listen to and analyse set works and research the cultural environment in which they were written.

#### Practical Musicianship

There are four elements in this component.

- Element 1: Solo performance of music which demonstrates contrasting genres and techniques. The performance should be 6 to 10 minutes in duration
- Element 2: Students will create two contrasting compositions of up to 4 minutes in duration for two or more instruments/voices

### Assessment Modes

Papers	Title	Weight	Length
9483/1	Listening - Music of the Western tradition	60%	2 hrs
9483/2	Practical Musicianship - Coursework	40%	Terms 1-3

### Subject Progression

**This course leads to Music**

- Advanced Level (A2) course: 9483



duet or as an accompanist. Performance is recorded on DVD and CD and forwarded to Cambridge Assessment for assessment.

#### Composition

A single composition (or group of shorter related pieces conceived as a whole) for any instrument, voice or combination lasting up to 8 minutes. The composition may draw on, or be a fusion of, any traditions or styles. It should be submitted in both written and recorded forms. If the style/tradition is not precisely notable, a full account of the composition and recording processes must be provided.

### Assessment Modes

Papers	Title	Weight	Assessed by
9483/3	Performance	50%	Terms 1-3
9483/4	Composition	50%	Terms 1-3

### AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%

## A2 Music

**Syllabus Code** 9483

**Prerequisites** AS Music

### Syllabus Statement

Students are encouraged to further develop creative and interpretative skills through the disciplines of composing and performing music.

### Course content

#### Performance

Perform music from any tradition that reflects a single focus, e.g. one substantial piece or group of pieces which reflect a common theme, style or purpose, on any instrument (or voice). The performance is to be between 12 -20 minutes in duration and should be performed on a single occasion (an audience may be present at the candidate's discretion). The programme will be introduced by the student, orally, in a brief explanation of the principal features of the repertoire to be performed and how individual items reflect the focus. Students may perform solo, in an ensemble or



# IGCSE Physical Education

**Syllabus Code** 0413  
**Prerequisites** Strength in at least one sport

## Syllabus Statement

The syllabus provides candidates with an opportunity to study both the practical and theoretical aspects of Physical Education. It is also designed to foster enjoyment in physical activity. The knowledge gained should enable candidates to develop an understanding of effective and safe physical performance.

## Course content

### Course work (practical)

Complete four practical activities with video evidence. The recommended activities are:

- Weight Training: developing a training programme
- Athletics - similar to the "Five Star" Athletics programme
- Netball / Basketball or Football.

Complete four activities. Choose a maximum of two activities per category from:

- Games
  - Badminton
  - Baseball
  - Cricket
  - Golf
  - Hockey
  - Rugby
  - Rugby League
  - Softball
  - Squash
  - Table-tennis
  - Tennis
  - Volleyball
- Gymnastics
  - Artistic
  - Rhythmic
  - Trampolining
  - Figure-skating
- Dance
  - Various styles
- Athletics
  - Cross-country
  - Rowing
  - Cycling
- Combat
  - Judo
  - Taekwondo

- Outdoor activities
  - Canoeing
  - Horse riding
  - Orienteering
  - Sailing
  - Mountain Biking
  - Skiing
  - Windsurfing
  - Rock climbing
  - Snowboarding
- Swimming, water polo, life-saving

### Theory (examination)

1. Anatomy and physiology
2. Health, fitness and training
3. Skill acquisition and psychology
4. Social, cultural and ethical influences

## Assessment Modes

Papers	Title	Weight	Length
0413/1	Paper 1 - Examination (Sat in November)	50%	1 hr 45
0413/2	Coursework - Practical (Completed Term 3)	50%	Terms 1-3

## Subject Progression

Success in this course leads to Sport & Physical Education

- Advanced Subsidiary (AS) course: 8386

# AS Sport & Physical Education

**Syllabus Code** 8386  
**Prerequisites**

- Strength in at least two sports and
- 55% in the theory component of the Strathallan Term 3 IGCSE Physical Education exam or
- 60% in Cambridge Math\* or
- 60% in an IGCSE Science\*

## Syllabus Statement

The Physical Education syllabus provides students with an opportunity to study both the practical and theoretical aspects of Physical Education. As well as fostering enjoyment in physical activity, it will encourage students to develop an understanding of the interaction between theory and practice by focusing on the performer and performance.

## Course content

### Component 1

#### Section A - Applied Anatomy, Physiology and Biomechanics

- Skeletal system
  - Joint types and movement
- Muscles
- Structure and function of the heart and vascular system
- Respiratory system
- Biomechanics
- Linear Motion
- Scale and vector quantities
- Drawing + interpreting graphs
- Newtons Laws of Motion
- Angular Motion
- Parabolic + non parabolic flight
- Properties of Bodies + objects

#### Section B - Acquiring, Developing and Performing Movement Skills

- Understanding motor and perceptual skills
- Classification of skills
- Defining ability
- Understanding motor skill development
- S/R bond theory

- Reinforcement
- Motor and executive theories
- Sensory perception, memory and reaction time
- Feedback
- Phases of learning movement skills
- Transfer of learning
- Motivation
- Types of practice
- Advantages + disadvantages
- Guidance verbal + mechanical

#### Section C - Sociocultural Issues in sport:

- Leisure and recreation
- Physical and outdoor recreation
- Concepts of play
- Concepts of sport
- Organisation of sport
- Agencies and funding
- Access and availability
- Issues in sport
- Professionalism
- Sponsorship
- Commercialisation and the media
- Drugs and sport
- Women in sport
- The use of technology

## Assessment Modes

Papers	Assessment Type	Weight	Length
9396/1	Written exam	50%	1 hr 45
9396/2	Coursework	50%	Terms 1-3

## Coursework

Students choose two physical activities from the list in the cambridge syllabus.

## IGCSE Physics

Syllabus Code 0625

Prerequisites Nil

### Note

Year 11 students wishing to select 3 Science subjects should first consult the Year 11 Dean)

### Syllabus Statement

The Physics syllabus offers a combination of theoretical and practical studies leading to an understanding of the basic principles of Physics. Students will develop scientific abilities and skills relevant to Physics, these will be of use in everyday life and, if desired, will form the basis for more advanced study. Students will gain awareness of the study and practice of science and will understand that scientific applications have both beneficial and detrimental effects on the individual and the environment. The course will prepare students to become confident citizens in a technological world, and to take informed interest in scientific matters

### Course Content

#### General Physics

- Length and time measurement
- Speed, velocity and acceleration
- Mass, weight, density
- Forces and momentum
- Pressure
- Energy, work and power

#### Thermal Physics

- Simple kinetic molecular model of matter
- Thermal properties, transfer of thermal energy

#### Wave Properties

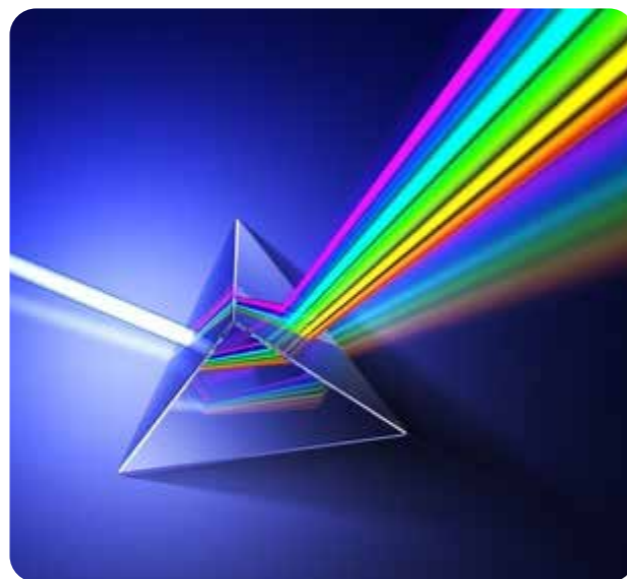
- Light and sound

#### Electricity and magnetism

- Magnetism
- Electrical quantities
- Circuits
- Dangers of electricity
- Electromagnetic effects
- Electromagnetic spectrum

#### Atomic Physics

- Radioactivity and the nuclear atom



#### Stars and the Universe

- Star formation
- Red Shift
- Hubble constant

### Assessment Modes

Papers	Assessment Type	Weight	Length
0625/2	Multiple choice	30%	45 mins
0625/4	Theory	50%	1 hr 15
0625/5	Practical test	20%	1 hr 15

### Subject Progression

#### This course leads to Physics:

- Advanced Subsidiary (AS) course: 9702
- Advanced-Level (A2) course: 9702

## AS/A2 Physics

### Syllabus Statement

The Physics syllabus enables students to acquire the knowledge and understanding required to become confident citizens in a highly technological world. Students develop abilities and skills useful in everyday life and develop relevant scientific attitudes such as concern for accuracy and precision, objectivity, enquiry, initiative and inventiveness. This course seeks to develop an interest in, and care for, the environment in relation to the environmental impact of Physics and its applications. It promotes an awareness that the study and practice of Physics are co-operative and cumulative activities, and are subject to social, economic, technological and cultural influences and limitations. Students are further made aware that the implications of Physics may be both beneficial and detrimental to the individual, the community and the environment. The use of IT is promoted as an aid to experiments and as a tool for the interpretation of experimental and theoretical results.

## AS Physics

Syllabus Code 9702

Prerequisites 65% in IGCSE Physics

### Course Content

- Measurement
  - Quantities
  - Scalars
  - Vectors
  - Measurements, errors and uncertainties
- Kinematics and dynamics
- Motion
  - Linear motion
  - Newton's laws of motion
  - Momentum and its conservation
- Forces
  - Types of force
  - Equilibrium of forces
  - Centre of gravity
  - Turning effects of forces
  - Energy conversion and conservation,
  - Work
  - Potential energy
  - Kinetic energy
  - Power Density
  - Pressure in fluids
  - Stress, strain elastic and plastic behaviour

- Waves
  - Progressive waves,
  - Transverse and longitudinal waves
  - Determination of speed, frequency and wavelength
  - The electromagnetic spectrum
  - Stationary waves
  - Diffraction
  - Interference
  - Two-source interference patterns
  - Diffraction grating
- DC Electricity
  - Electric current
  - Potential difference, resistance and resistivity
  - Practical DC circuits
  - Conservation of charge and energy
  - Balanced potentials
- Particle and nuclear physics

### Assessment Modes

Papers	Title	Weight	Length
9702/1	Multiple choice	31%	1 hr 15
9702/2	Structured questions	46%	1 hr 15
9702/3	Practical exam	23%	2 hrs

### Subject Progression

#### This course leads to Physics

- Advanced Level (A2) course: 9702

# A2 Physics

Syllabus Code **9702**  
Prerequisites AS Physics

## Course Content

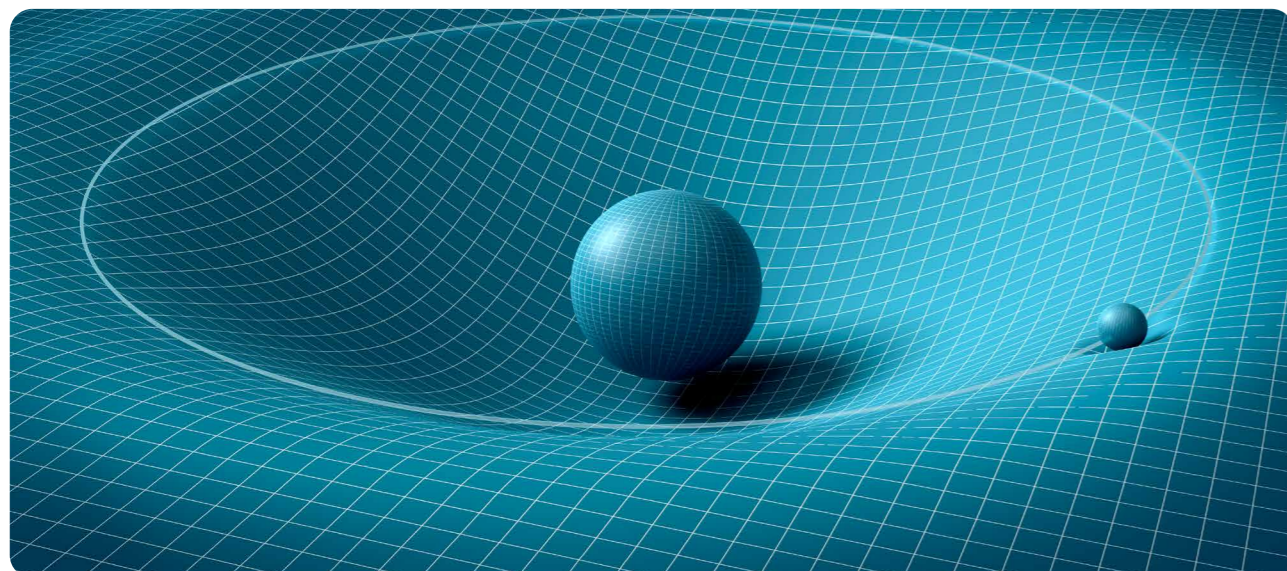
- Motion in a circle
- Simple Harmonic Motion
- Quantum Theory
  - Photoelectric Effect
  - Wave-Particle duality
  - Atomic Spectra
- Nuclear physics
  - Fundamental particles
  - Binding energy
- Gravitational fields
- Electric fields
- Capacitance
- Ideal gases
- Kinetic Theory
- Thermal properties of materials
- Magnetic fields
- Electromagnetic induction and AC
- Astronomy and Cosmology

## Assessment Modes

Papers	Title	Weight	Length
9702/4	Structured questions	77%	2 hrs
9702/5	Planning and Analysis Questions	23%	1 hr 15

## AS/A2 course weightings

Course	Proportion of overall A-Level grade
AS	50%
A2	50%



# IGCSE Spanish

Syllabus Code **0530**  
Prerequisites 2 full years of Spanish study and a high level of achievement in Year 10 Assessment.^

## ^Note

Students who did not study Year 10 Advanced Spanish should consult their Spanish teacher.

## Syllabus Statement

The Spanish syllabus develops the students' ability to use the language effectively for the purposes of practical communication, enjoyment, and intellectual stimulation. It offers insight into Hispanic cultures and civilisations and encourages positive attitudes towards them. It will give students a sound base of listening, speaking, reading and writing skills for further study, work, or leisure. The study of a foreign language also complements other areas of study by developing a fuller awareness of language and encouraging the use of skills with a more general application.

## Course Content

- Everyday activities
- Personal and social life
- The world around us
- The world of work
- The international world

## Assessment Modes

Papers	Assessment Type	Weight	Length
0530/1	Listening	25%	50 mins
0530/2	Reading	25%	1 hr
0530/3	Speaking	25%	10 mins
0530/4	Writing	25%	1 hr

## Subject Progression

This course leads to Spanish:

- Advanced Subsidiary (AS) course: 8022
- Advanced Level course: 9844

# AS/A2 Spanish

## Syllabus Statement

The Spanish Language syllabus develops the ability to understand the foreign language from a variety of registers and to enable students to communicate confidently and clearly. It develops insights into the culture and civilisation of the countries where the language is spoken, and forms a sound base of skills, language and attitudes required for further study, work and leisure. The course will also encourage positive attitudes to language learning and a sympathetic approach to other cultures and civilisations and will further intellectual and personal development by promoting learning and social skills.





## AS Spanish

**Syllabus Code** 8022  
**Prerequisites** 60% in IGCSE Spanish

### Course Content

The aims of the course are to:

- develop the language proficiency required to communicate effectively in Spanish as an CEFR Independent User
- explore and engage with the culture and society of countries and communities where Spanish is spoken
- encourage positive attitudes towards speaker of the other languages and sympathetic approach to other cultures
- provide enjoyment and intellectual stimulation
- support the development of transferable skills (eg. communication and organisation skills, autonomy, resourcefulness and cognitive flexibility) to complement other areas of the curriculum.
- continue developing the skills, languages and attitudes required for further study, work and leisure.

The subject content is organised into six topic areas:

- Culture
- Health and well-being
- Education and future plans
- Community and society
- Our responsibility for the planet
- Science and technology

### Assessment Modes

Papers	Assessment Type	Weight	Length
8022/1	Listening	25%	1 hr
8022/2	Reading	25%	1 hr 30
8022/3	Writing	25%	1 hr 30
8022/4	Speaking	25%	16mins

### Subject Progression

**This course leads to Spanish:**

- Advanced Level course: 9844

## A2 Spanish

**Syllabus Code** 9844  
**Prerequisites** AS Spanish

### Course Content

The aims of the course are to:

- develop the language proficiency required to communicate effectively in Spanish at B2 and C1 (Independent/Proficient User)
- Explore, appreciate and engage with the culture, society and literature of countries and communities where Spanish is spoken
- Provide enjoyment, intellectual stimulation and curiosity to learn more
- Develop intercultural awareness, encouraging a positive, open and empathetic approach to other languages and cultures
- Continue developing the skills, language and attitude required for higher education, work and leisure

The subject content is organised into six topic areas at A Level:

- Culture
- Health and well-being
- Education and future plans
- Community and society
- Our responsibility for the planet
- Science and technology

**Texts:**

1. "El coronel no tiene quien le escriba" by Gabriel García Márquez
2. "La casa de Bernarda Alba" by Federico García Lorca

### Assessment Modes

Papers	Assessment Type	Weight	Length
9844/1	Reading	33%	1 hr 30
9844/2	Writing	33%	2 hrs
9844/3	Literature	33%	2 hrs



