CARRICKFERGUS Grammar School



Senior School
Subject Choice Booklet
for AS & A2 Courses
2021- 2023

Praestantia

SENIOR SCHOOL SUBJECT BOOKLET

(AT AS & A2) 2021-2023

This booklet provides information on each of the Advanced Level Subjects currently provided by the school.

Heads of Department and Teachers-in Charge have outlined course content at both AS (Year 13) and A2 (Year 14) level, coursework, and other information deemed applicable.

Guidance regarding university courses is also included to assist you further. We hope you find this useful.

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The A Level course consists of two externally examined sections: AS in Year 13 and A2 in Year 14. Other than those who take a Mathematics and Further Mathematics combination it is only in rare cases that we would encourage or permit pupils to take on four subjects at AS level. Almost all Year 13 students study three subjects at AS. When choosing courses students should bear in mind the subjects that they enjoy, the subjects in which they attain the strongest grades, and, where known, their choice of career.

Academic requirements for AS study at Carrickfergus Grammar School

Our overriding concern is that students, staff and parents have clear evidence that the pupil is academically capable of benefitting from the courses of study that we offer. Appropriate evidence will be the results of the GCSE examinations.

(1) All students must achieve:

a) Minimum of six GCSEs at Grade C or above (to include Mathematics and English Language)

b) Using the figures in the table below, a total score of 30 points

GCSE Grade (CCEA qualifications)	GCSE Grade (Non-CCEA qualifications)	Return Points
A*	9	9
А	7	7
В	6	6
C*	5	5
С	4	4

- In their own best interests, students should have obtained a 'B' at GCSE in any subject they wish to study at AS/A2.
- d) However, in Chemistry, Mathematics and Physics the minimum entry requirement is an A grade at GCSE.
- (2) Some subjects (see list overleaf) may be taken at AS level without having first studied them at GCSE. In these cases, in their own best interests, students should have obtained a 'B' at GCSE in an allied subject as listed overleaf.

OVERVIEW CONTINUED

SUBJECT ALLIED SUBJECT

Accounting Mathematics (in M3+M7 or equivalent)

Business Studies English Language

Environmental Technology Physics (English Language or Geography is

also desirable)

Government and Politics History or English Literature

Geography Biology or Chemistry or Physics or Double

Award Science and English Language

Health and Social Care English Language

IT (Level 3 Diploma) Digital Technology or Design and Technology

Life and Health Sciences Chemistry and Biology

Music Musicianship of Grade 5 standard

Nutrition and Food ScienceBiologyPhotographyArtPhysical EducationBiology

Religious Studies History or English Literature

(3) Studying Nutrition and Food Science at AS Level

In their own best interests, admission into the class will be limited to those pupils who have achieved a B at GCSE in the theory components of Nutrition and Food Science, Child Development or Health and Social Care.

(4) Studying Science subjects at AS Level

For those who have studied Double Award— At AS Level, Science is studied as 3 separate subjects: Biology, Chemistry and Physics. Choosing and being accepted for an AS Chemistry or Physics class will be limited to those pupils who achieved an A (B for Biology) in the GCSE of the Science they wish to study.

For those who have studied Core Science A and Additional Science— Given the variance in content of examination board GCSE specifications, choosing and being accepted for an AS Science class will be limited to those who have obtained grades AA. Single Award Science is not a sufficient basis for study of an individual Science at AS /A level.

(5) Alternative entry qualifications

Those applicants to Year 13 who have followed alternative qualifications shall be considered on the merits of those courses and their results profile.

The following additional details apply to entry to AS Classes in September 2021: -

Class size

- AS/A Level classes will usually be no larger than 22 pupils. If a class is oversubscribed, students will be chosen on the basis of their GCSE performance in that subject or, if not studied at GCSE, performance in allied subject (s) as listed opposite.
 In each subject, if a tie exists after relevant criteria are employed, pupils with the highest % attendance in Year 12 will be admitted before those with lower and in the exceptionally unlikely event that a tie still exists, random selection will be employed.
- 2. If a class is undersubscribed it may not be offered.

Special Cases

With the support of medical evidence and/or a special recommendation by the appropriate teacher(s), careful consideration will be given to pupils who in the opinion of the school under-achieved in GCSE.

Please note

In addition to the academic criteria above we reserve the right to refuse admission to post GCSE study to any pupil whose past behaviour has been unacceptable.

Furthermore, we assume that those pupils choosing to return to school after GCSE are indicating their willingness to accept and follow the rules and routines of the School.

Moving on to A2 Courses for Year 14

AS results mark the end of Year 13 studies after which most students will have two options: -

- 1. Leave school with their AS grades
- 2. Continue to A2 if the AS grades are appropriate

Any pupil with less than the equivalent of 3 'D' grades will not be permitted to continue without being interviewed. The purpose of such interviews will be to ascertain the appropriate next steps. Continuing to study a subject in which an 'E' grade (or below) has been achieved may not be permitted.

Relevant decisions will be confirmed during interviews with senior staff in mid-August after the results are available.

Examining Board: AQA

AS/A2
Length of Course: 2 Years

Overview

'Money makes the world go round'.... Even the best business ideas get nowhere without sound financial management. So whether you want to work for big business, be the next Richard Branson or have your own small business, a knowledge of financial management is vital.

This Accounting course equips you with the necessary knowledge and skills to be able to assess the performance of all types of business organisations. It will enable you to effectively analyse and evaluate financial data so that you can make judgements, decisions and recommendations about how businesses can manage their financial affairs.

NOTE... the Accounting course is LINEAR – this means it is a 2 year course with no externally assessed AS exam. Only the 2 exams at the end of Year 14 contribute towards the A-level result. However, a school produced grade will still be awarded solely to determine the suitability of continuing to A2 study in Accounting. This grade will be based on performance in the mock examination as well as tracking tests and formal homeworks.

Year 13

- 1. An introduction to the role of the accountant.
- 2. Types of business organisation
- 3. Double entry bookkeeping
- 4. Verification of accounting records
- 5. Accounting concepts

- 6. Financial statements of sole traders
- 7. Limited company accounts
- 8. Ratio analysis
- 9. Budgeting
- 10. Marginal costing

Whilst the Accounting course is now <u>LINEAR</u> you will still sit the AS exam at the end of Year 13. This will enable some pupils to study Accounting as an extra AS and will also ensure that those progressing to A2 study are capable of doing so.

1 Written paper: 3 hours / 100% of AS level / 0% of A level

Year 14

- 11. Standard costing and variance analysis
- 12. Absorption and activity based costing
- 13. Capital investment appraisal
- 14. Incomplete records

- 15. Partnership accounts
- 16. Accounting for limited companies
- ${\bf 17.\ Interpretation,\ analysis\ and}$
 - communication of accounting information
- 18. The impact of ethical considerations

2 written examinations - each paper is 3 hours and worth 50% of the A-level. There is no coursework in this subject.

Careers:

If you are focused on further study or a career in accounting, finance, business or banking this course is a great choice. But even if you plan on becoming a professional musician or technical wizard, it's good to know about accounting. That way you'll be able to control your own finances and understand the implications of business propositions.

ART & DESIGN A LEVEL

Examining Board: EDEXCEL Length of Course: 2 Years

At A level all pupils will follow a programme of study to further develop and refine their skills acquired at GCSE. The coursework is completed through a process of investigation and experimentation led by the individual pupil to complete a final outcome which could take the form of a Fine Art or Design Piece. The externally set project is a piece of work with a common starting point. Each pupil will interpret a theme in their own individual way concluding in one final outcome.

Exam Structure

Students taking the A level examination in Art and Design are required to submit

- Unit 1- Coursework study 50% of 'A' Level Internally set and marked.

 Externally moderated
- Unit 2 Externally Set Assignment Externally set Internally Marked.
 Externally moderated 12 hr timed exam

Careers

Studying Art and Design can lead to a career in: Fashion design, Product design, textile design, Graphic design, Architecture, Interior Design, Jewellery Design & Teaching

AS/A2 Length of Course: 1/2 years

Overview

This Biology specification enables pupils to study living organisms, including their structure, functioning, origin, evolution, classification, interrelationships and distribution. Pupils will also address the spiritual, moral, ethical, environmental, social and cultural issues which arise from this study and which are met in certain parts of the specification.

Pupils will develop skills in investigational and practical problem solving, in application of number, in team work, in interpreting data, in using ICT and in communication

AS	ЦΕ	VE	L

AS Unit 1: Molecules & Cells AS Unit 2: Organisms & Biodiversity AS Unit 3: Practical Skills in AS Biology	40% 40% 20%	1hr 30 min examination 1hr 30 min examination a) assessed tasks b) written examination	
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A2 LEVEL

A2 Unit 1: Physiology, Co-ordination and Control and Ecosystems

A2 Unit 2: Biochemistry, Genetics, **Evolution**

A2 Unit 3: Practical Skills

40% 2hr 15 min examination

40% 2hr 15 min examination 20% a) internally assessed tasks b) written examination(1 hr 15 min)

CAREERS:

This subject allows pupils to obtain a prerequisite qualification to gain entry to Higher Education in the field of Biology, or prepare for direct employment in the fields of science, engineering, medicine, communication, education etc.

BUSINESS STUDIES

Examining Board: CCEA

AS/A2 Length of Course: 1/2 years

Overview

A Level Business Studies students gain a holistic understanding of business and the international marketplace; generate enterprising and creative solutions to business problems; understand the ethical dilemmas faced by business decision makers, and; develop advanced study skills that help them prepare for third level education.

YFAR 13

AS 1: Introduction to Business (20% of A-Level)

Students are introduced to entrepreneurs. They will become familiar with ownership structures and understand the importance of quality in the competitive marketplace, including recruiting, training, motivating and leading a quality labour force.

Two compulsory structured questions - 80 marks, 90 min exam

AS 2: Growing the Business (20% of A-Level)

Students explore the role of technology in decision making in a growing business. They develop their understanding of marketing strategy and accounting and financial control.

Two compulsory structured questions - 80 marks, 90 min exam

YEAR 14

A2 1: Strategic Decision Making (30% of A-Level)

Candidates will be expected to recognise potential conflict between the objectives of different stakeholder groups and analyse the importance of accounting information in making strategic business decisions.

5 compulsory structured data response questions - 90 marks, 2hr exam

A2 2: The Competitive Business Environment (30% of A-Level)

This unit examines the macroeconomic and international framework within which businesses operate and the unique culture and ethics of each organisation.

6 compulsory structured data response questions - 90 marks, 2 hr exam

Additional Information

Students do not have to have studied GCSE Business Studies. Performance in GCSE English is considered to give some indication of the potential to perform at a good level in this subject. The Business Studies department has helped many students achieve excellent results and has seen a high proportion of its students go on to take business-related degree courses at university. This in itself gives an indication of how useful and enjoyable past pupils have found the subject. A-Level Business Studies has also proven a useful preparation for pupils who have gone on to study courses as diverse as law, engineering and biomedical science at the country's top universities.

CHEMISTRY Examining Board: CCEA Length

AS/A2
Length of Course: 1/2Years

A GCE in Chemistry allows you to develop a range of generic skills requested by both employers and universities. It is a challenging subject because it involves a lot of abstract concepts. To solve many problems in Chemistry these concepts have to be understood and linked together in a particular order. This is a skill that you have to learn and develop and for this reason 'A' level Chemistry is quite different to GCSE Chemistry.

Chemistry is taught in a logical sequence of topics. The table below summaries the teaching units, assessment method and weighting.

Unit number	Description	Duration	AS	A2
Unit AS 1 Basic Concepts in Physical and Inorganic Chemistry	Written paper	1 hour 30 min	35%	17.5%
Unit AS 2 Further Physical and Inorganic Chemistry and Introduction to Organic Chemistry	Written paper	1 hour 30 min	35%	17.5%
Unit AS 3 Practical Assessment	Practical booklet A 1 hour Practical booklet B 1 hour 30 minutes		30%	15%
Unit A2 1 Periodic Trends and Further Organic, Physical and Inorganic Chemistry	Written 2 hours paper		40%	20%
Unit A2 2 Analytical, Transition Metals, Electrochemistry and Further Organic Chemistry	Written paper	2 hours	40%	20%
Unit A2 3 Practical Assessment	Practical Exam 2 hours 30 minutes		20%	10%

If you would like to study Chemistry you need to be willing to learn new skills and new ways of thinking. It is vital that you have the determination to succeed and have the desire for academic success.

Careers:

Chemistry, Environmental Law, Patent Law, Pharmaceuticals, Software design, Space Exploration, Forensic Science, Military Systems, Dentistry, Engineering, Teaching, Research and Development, Biotechnology.

DESIGN & TECHNOLOGY

Examining Board: CCEA

AS/A2 Length of Course: 1/2 years

Design and Technology at this level builds upon the experience gained at GCSE. The course provides students with the opportunity to develop their understanding and awareness of Engineering and Design in the world we live.

Major theory and coursework elements are completed each year with focus on key areas such as electronic systems and control, quality of manufacture, materials processing and innovative design thinking.

AS and A-level Specifications

AS 1

Design and Materials with Systems and Control

AS 2

Coursework: Product Development, Redesigning and making an aspect of an existing product

A2 1

Systems and Control -The design of Electronic and Micro-Electronic Control Systems

A22

Coursework: Product – System, Design and Manufacture. Candidates identify a problem or need and design and make a technological product or system to solve the problem or satisfy the need.

Assessment

AS 1 - 2 hrs external exam paper 50% AS and 20% of A-level **AS 2** - Coursework 45 hrs –

Internally assessed and externally moderated 50% of AS and 20% of A-level

A2 1 - 2 hrs external exam paper 30% of A-level

A2 2 - Coursework 60 hrs – Internally assessed and externally moderated 30% of A-level

If you would like to study Chemistry you need to be willing to learn new skills and new ways of thinking. It is vital that you have the determination to succeed and have the desire for academic success.

Careers: Chemistry, Environmental Law, Patent Law, Pharmaceuticals, Software design, Space Exploration, Forensic Science, Military Systems, Dentistry, Engineering, Teaching, Research and Development, Biotechnology.

ENGLISH LITERATURE

Examining Board: CCEA

AS/A2
Length of Course: 1/2 years

Students will read widely and independently both set texts and others they have selected for themselves; engage with a wide variety of texts; develop literary analysis; explore the contexts of the texts they are reading and deepen their understanding of the changing traditions of literature in English.

AS UNIT 1

The Study of Poetry 1900-Present and Drama 1900-present: External written examination 2 hours, Section A is Poetry and Section B is Drama

- (a) Poetry: Seamus Heaney and Robert Frost
- (b) Brian Friel, Translations [closed book]

AS UNIT 2

The Study of Prose Pre 1900: External written examination 1 hour Mary Shelley's, *Frankenstein* [closed book]

A2 UNIT 1

Shakespearean Genres (Closed book)

ASSESSMENT: External examination 1.5 hours, 1 question 20% of A2 marks

A2 UNIT 2

The Study of Poetry Pre 1900 and Unseen Poetry

ASSESSMENT: External examination 2 hours, 2 questions 20% of A2 marks

A2 UNIT 3

Internal Assessment

Internal assessment. Students complete a 2500-word essay based on the study of 21st century and

20th century prose

ASSESSMENT: Internal assessment 20% of A2 marks

Careers:

The study of English Literature firstly provides intrinsic pleasure, as well as providing an invaluable foundation for any personal or academic study and directly feeds a myriad of career paths including: Journalism, Law, Teaching, PR, Politics and Marketing/Sales.

Environmental Technology *Examining Board:* **CCEA**

Length of Course: 1/2 years

AS/A2

Exam Structure

<u>Unit AS 1 - The Earth's Capacity to</u> <u>Support Human Activity</u>

Assessment:

External Written Exam: 1hr 30 mins

50% AS (20% A Level)

<u>Unit AS 2 — Renewable Energy</u> <u>Technologies</u>

Assessment:

Internal Assessment. Students produce a technical report based on a realistic scenario relating to the use of renewable technologies.

50% AS (20% A Level)

<u>Unit A2 1—Building and Managing a</u> <u>Sustainable Future</u>

Assessment:

External Written Exam: 2 hrs

30% of A Level

<u>Unit A2 2 — Environmental Building</u> Performance and Measurement

Assessment:

Internal Assessment. Students produce a technical report relating to the environmental performance of local building.

30% of A Level

Additional Information

This science-based specification focuses on technological solutions to the energy and environmental problems facing the world today. It highlights the need to manage our planet's resources more effectively and explores how our society will make the transition to a more sustainable way of living.

The A Level award provides a sound basis for study in Further and Higher Education either in a design or a technical area. It also develops planning, problem solving and independent study skills that are highly valued in the world of work.

Environmental Technology is an applied qualification in which students develop knowledge, understanding and skills through practical demonstration and/or in a context related to employability.

FRENCH Examining Board: CCEA

AS/A2 Length of Course: 1/2 years

The French course introduces a range of topics of interest to young people including Relationships, Culture and Lifestyle, as well as Young People and Society and Our Place in a Changing World. It aims to develop their confidence and competence in listening, speaking, reading and writing skills and seeks to promote a critical awareness and a positive attitude towards the society and culture of the target language country and French-speaking countries or communities.

This course provides students with a basis for further study at degree level by preparing them to use the language in both social and professional situations.

UK Language graduates work in Business services, Health/Community/Social Services, Public Administration, International organisations, Manufacturing, Wholesale/Retail Sales, Banking/Finance, Education, Hotels and Restaurants.

AS EXAM STRUCTURE

Context 1 - Relationships - Family Life and Influences

Context 2 - Culture and Lifestyle - Physical well-being, Mental well-being, Interests and Holidays.

Culture - Study of a novel or film chosen from prescribed lists

ASSESSMENT

Paper 1 - Speaking Exam, 11mn (Presentation & Conversation) - 30% of AS & 12% of A2

Paper 2 - Listening, Reading & Use of Language Exam, 2hrs (Listening, reading, grammar, translations into English and into French) - 40% of AS & 16% of A2

Paper 3 - Extended writing Exam, 1hr (1 essay response on set film or novel) - 30% of AS & 12% of A2

A2 EXAM STRUCTURE

Context 1 - Young People in Society - Education and Career Planning, Citizenship & Globalisation.

Context 2 - Our Place in a Changing World - Equality, Multi-cultural Society, Democracy & Conflict,

Sustainable Living.

Culture - Study of a novel and a societal theme chosen from prescribed lists.

ASSESSMENT

Paper 1 - Speaking Exam, 15mn (Discussion & Conversation) - 18% of A2.

Paper 2 - Listening and reading Exam, 2h45mn (Listening, reading, summary into English and translation into French) - 24% of A2.

Paper 3 - Extended writing Exam, 1hr (1 essay response on set novel) - 18% of A2.

Additional Information

The Modern Languages course introduces a range of topics of interest to young people, and it aims to develop their confidence and competence in spoken, written, reading and responding skills. It seeks to promote a critical awareness and a positive attitude towards the society and culture of the target language country. It provides students with a basis for further study at degree level by preparing them to use the language in both social and professional situations.

Examining Board: CCEA

AS/A2
Length of Course: 1/2 years

Overview

By studying GCE Geography you will learn about geographical concepts and processes, interactions between people and their environment, the challenges of sustainability and the importance of attitudes and values. You will then be able to relate what you have studied to the world around you. The AS course can be taken as a final qualification or as the first half of the A Level qualification. If you wish to obtain a full A Level qualification, you must complete the second half of the course referred to as A2.

What do I need to be able to take this course?

You should have successfully completed GCSE Geography at Higher Tier before enrolling for this course.

How can this course help me?

This course can help you to develop a wide range of skills that are attractive to employers. For example, it can help to develop your skills in investigating, collating and evaluating information and being able to contribute to important debates on the current issues facing our world today. You may just wish to study Geography for your own personal interest, but if you wish to continue the study of Geography at degree level, you will need to complete the full A Level course.

AS LEVEL

- AS 1: Physical Geography 1 h 15min exam
- AS 2: Human Geography 1 h 15min exam
- AS 3: Fieldwork Skills Techniques in Geography 1-hour exam.

A2 LEVEL

- A2 1: Physical Processes, Landforms and Management - 1h 30m exam
- A2 2: Processes and Issues in Human Geography - 1h 30m exam
- A2 3: Decision Making in Geography –
 1h 30m exam

Careers

Many Geography students go on to have successful and interesting careers such as Civil Engineering, Urban Planners, cartographers, GIS specialists, Climatologists, Weather forecasters, Researchers Teachers etc.

GOVERNMENT AND POLITICS

Examining Board: CCEA Length of C

Length of Course: 1/2 years

AS/A2

The study of Government and Politics provides pupils with relevant and stimulating material aimed at developing their skills and critical awareness of political ideas, institutions and processes, including a particular emphasis on Northern Irish politics. The course encourages students to explore and examine their own values, beliefs, attitudes and perceptions, making judgements and ultimately reaching decisions regarding the society in which they live.

Course Structure:

All papers are a combination of short structured answers and more extended writing

AS MODULES	Length of Exam	Marks
The Government and Politics of Northern Ireland The British Political Process	1hr 15 mins 1hr 45 mins	40% AS (16% A2) 60% AS (24% A2)

AS MODULES	Length of Exam	Marks
Comparative Government UK/USA Political Power	2hr 15 mins 1hr 30 mins	35% A2 25% A2

What do I need to know before taking the courses?

You do not need to have studied Politics for GCSE in order to take an AS or A2 level in the subject. It is more important to have an enquiring and lively mind, along with an interest in politics and current affairs, a desire to explore new ideas and an ability to communicate your ideas effectively.

What kind of student is this course suitable for?

This course will appeal to those students who:

Enjoy voicing their opinions, debating current affairs and political issues

- Like doing a subject that affects their everyday lives
- Have a keen appreciation of the need to participate in society
- 2 Aren't afraid of dealing with controversial matters.

What does the course lead to?

<u>Skills:</u> Aside from preparing students for specific fields of employment Government and Politics teaches many vital transferable academic skills such as the ability to properly formulate and communicate effective argument, along with the capacity to solve problems, think analytically, critically and logically.

<u>Careers:</u> Obviously, anyone who would like to study Politics further should be taking the subject for 'A' level. Anyone interested in careers such as Law, Journalism, the media, Social Work or any kind of public administration should consider studying Government and Politics.

HEALTH AND SOCIAL CARE

Examining Board: CCEA

AS/A2 Length of Course: 1/2 years

Why study Health and Social Care?

Health and Social Care is an interesting and diverse subject. Short placements are an essential feature of the course, as they allow students to experience the reality of health and social care and early years' settings. Students will have the opportunity to apply their knowledge and understanding of key issues within these settings, as well as discuss their own experiences, through the coursework element of the course.

Students are encouraged to keep up-to-date with current issues in the Health and Social Care sector, which leads to stimulating class discussions and debates. Being able to provide extended responses and show evidence of quality of written communication is essential for coursework and examination questions.

The skills explored throughout the course help in the development of higher order thinking, creative thinking and problem-solving. Furthermore, aptitudes and values are developed alongside the essential knowledge and understanding relevant to degrees in health professions, social work, social sciences and early years.

Unit AS 1: Promoting Quality Care (25% of AS)

Students will undertake two placements on which two units of coursework are based. The first unit of coursework focuses on the promotion of quality care in a health or social care, or early years setting. Students will cover issues within this unit that include the promotion of values of care, legislation, health and safety and policies and write up their reports based on various tasks

Unit AS 2: Communication in Health, Social Care and Early Years Settings (25% of AS)

The second unit of coursework explores the importance of communication in health and social care and early years' settings. The focus is on how staff communicate with service users, health professionals and families through various methods of communication, such as verbal, non-verbal or written, and the purpose of such communication.

Unit AS 3: Health and Well-Being (50% of AS)

The third unit of the AS course is an exam based unit in which students will learn about key concepts of health and wellbeing, and how various factors impact the health of individuals. Some of the factors explored include socio-economic, behavioural and environmental factors.

Unit A2 3: Providing Services (30% of A level)

This unit is a compulsory written examination, based on pre-release material provided by CCEA eight weeks prior to the exam. The material provided will focus on one service user group, including: children and families, older people, people with physical disabilities or illnesses, people with learning disabilities and people with mental illnesses.

Unit A2 2: Body Systems and Physiological Disorders (15% of A level)

In this unit, students learn about the structure, function and control mechanisms of two major body systems and why we might monitor these body systems and the importance of safety, ethics and accuracy. As part of the practical component of this unit, students monitor the two body systems for two individuals. They also investigate a physiological disorder in depth by looking at diagnosis, the impact of the disorder on the individual and their family or carers, how effective the care is and the support services available. This unit is internally assessed through the completion of coursework.

Unit A2 5: Supporting the Family (15% of A level)

In this unit, students will focus on the changing and evolving family structures in today's society, and how they have changed since the end of WW2. 'Issues to be discussed and researched may include children with behavioural problems, domestic violence, poverty, racism and child abuse. This unit will be internally assessed by coursework.

HISTORY AS/A2

Examining Board: CCEA Length of Course: 1/2 years

Exam Structure

The History AS/A2 Level consists of 4 Units all focused within the 20th century. The first 2 Units are studied in Year 13 and are each tested by examination at the end of that year. These include:

Additional Information:

The study of History provides pupils with opportunities to develop skills of comprehension, translation, interpretation, analysis and evaluation. With the acquisition of these skills, students will engage in Historical enquiry by investigating questions or issues and using historical sources critically in their context.





Career opportunities

Given the range of these skills, career pathways of all kinds are open to History 'A' Level students. Law, journalism, publishing and broadcasting are commonly pursued as a result. However, many other job opportunities include education, archivists, management, consultancy, the arts and branches of public life such as the Civil Service.

INFORMATION TECHNOLOGY

(CAMBRIDGE TECHNICAL INTRODUCTORY DIPLOMA)

Length of Course: 2 Years

Examining Board: OCR

(equivalent to A2).

Specification: OCR Cambridge Technical Introductory Diploma in IT (Level 3) (2016 Suite)

Pupils should note that in regard to university applications, Queen's University Belfast and the University of Ulster accept this course but don't accept it as a subject for a reduced offer for computing courses.

Requirements/Student Suitability:

Whilst it is not essential to have studied GCSE Digital Technology, it may be beneficial. Students who have GCSE Digital Technology or Design & Technology will find it much easier to take up an IT qualification at this level.

Summary of Course:

This qualification is designed to give learners a range of specialist knowledge and transferable skills in the context of applied IT, providing them with the opportunity to enter an apprenticeship, move directly into employment, or progress to a related Higher Education (HE) course.

Application Developer Pathway

Learners will follow the Application Developer Pathway. In addition to the two mandatory units (Units 1 - Fundamentals of IT and Unit 2 - Global Information), learners will take the designated mandatory unit for this pathway - Unit 6 Application Design, where they will explore application design and develop a prototype to meet a user requirement. Learners will also take two optional units:

- Unit 3: Cybersecurity
- Unit 21: Web design and prototyping

Assessment

Unit 1, Unit 2 and Unit 3 are assessed through external examinations.

Unit 6 and Unit 21 constitute coursework and are internally assessed and externally moderated by OCR.

Independent Study Time:

Students are expected to work outside of curriculum time. A successful ICT student will:

- · Develop a broad range of ICT skills and knowledge of the uses of ICT in vocational contexts.
- · Acquire knowledge and understanding of the components, functions and applications of information systems within a range of organisations.
- · Acquire an understanding of the main principles of solving problems using ICT and develop the skills necessary to apply this understanding.

Career Opportunities

IT professionals are not only employed in the IT sector but also across all other sectors, as IT is used by almost all businesses to reach more customers. ICT skills are also increasingly necessary for:

- · HND/HNC/Degree Computing Courses
- · Modules within other degree subjects

Examining Board: CCEA Length of Course: 1/2 years

This qualification was developed in partnership with Life and Health Sciences industry and can be a pathway to many careers including pharmacy, biomedical science, nursing and radiography. The course will equip learners with the skills and knowledge required by the Life and Health Sciences sector, which generates £800m turnover per year in NI and is growing by 12% annually.

Unit	Assessment	Weightings
Unit 1: Experimental Techniques	Internal assessment Core unit	33.34% of AS 13.34% of A level
Unit AS 2: Human Body Systems	External written examination Core unit 1 hour 30 mins	33.33% of AS 13.33% of A level
Unit AS 3: Aspects of Physical Chemistry in Industrial Processes	External written examination Core unit 1 hour 30 mins	33.33% of AS 13.33% of A level
Unit A2 1: Scientific Method, Investigation, Analysis and Evaluation	Internal assessment Core unit	20% of A level
Unit A2 2: Organic Chemistry	External written examination 1 hour 45 mins Core unit	20% of A level
Unit A2 5: Genetics, Stem Cell Research and Cloning	External written examination 1 hour 45 mins	20% of A level

MATHEMATICS AS/A2

Examining Board: CCEA Length of Course: 1/2 years

Mathematics is all around us. It exists in the proportions of artistic works, in the scores of our favourite songs and in the physical structures we live and work in daily. It is also the bedrock of many other subjects including the Sciences, Economics and Engineering and is extremely relevant to subjects like Psychology and Design.

Overview:

The content of AS & A2 Mathematics builds on the knowledge, skills and understanding established throughout GCSE. At AS Level pupils will study modules Pure Mathematics (60%) & Applied Mathematics (40%) of the AS award. At A2 level pupils will study modules Pure Mathematics & Applied Mathematics. The A2 Level award is based 40% on the AS Level modules and 60% on the A2 level modules.

AS - Pure Mathematics (60% of AS or 24% of A2 level):

- Algebra
- Geometry
- Trigonometry
- Calculus

AS - Applied Mathematics (40% of AS or 16% of A2 level):

- Mechanics
- Statistics

ASSESSMENT:

Pure Mathematics examined by a 1 hr 45 min written paper. Applied Mathematics examined by a 1 hr 15

Applied Mathematics examined by a 1 hr 1 min written paper.

A2 - Pure Mathematics (36% of A2 level):

- Algebra
- Geometry
- Trigonometry
- Calculus

AS - Applied Mathematics (24% of A2 level):

- Mechanics
- Statistics

ASSESSMENT:

Pure Mathematics examined by a 2 hr 30 min written paper.
Applied Mathematics examined by a 1 hr 30 min written paper.

Careers:

The study of Mathematics can develop a host of skills that are essential to students continuing in their studies as well as those currently in or entering the workplace. These include problem-solving, logic and reasoning, and attention to detail. Mathematics can also lead to careers in Engineering, Finance, Business, I.T. and Teaching, among others.

FURTHER MATHEMATICS

AS/A2

Examining Board: CCEA Length of Course: 1/2 years

GCE Further Mathematics is of a similar level to many first year university Mathematics courses. Further Mathematics builds on the skills, knowledge and understanding that students have developed in their previous study of GCSE Further mathematics. It is essential pupils have studied Further Mathematics and recommended they have achieved a high standard (B or above).

Overview

At AS and A2 Level pupils will study 2 equally weighted modules, one in Pure Mathematics and one in Applied Mathematics.

AS 1: Pure Mathematics is assessed by a 1hr 30min written examination which constitutes 50% of the AS and 20% of the A2 award. Topics include

- A2 1: Pure Mathematics is assessed by a 2hr 15min written examination which constitutes 30% of the A2 award. Topics include
- Further algebra and functions
- Complex Numbers
- Matrices
- Vectors

- Proof
- Further algebra and functions
- Complex Numbers
- Further Calculus
- Polar Coordinates
- Hyperbolic functions
- Differential Equations

AS 2: Applied Mathematics is assessed by a 1hr 30min written examination which constitutes 50% of the AS and 20% of the A2 award. Topic sinclude

- Hooke's Law
- Work, Energy & Power
- Circular Motion
- Further Equilibrium
- Resultant and relative velocity
- Further Circular Motion
- Gravitation
- Dimensions

A2.2: Applied Mathematics is assessed by a 2hr 15min written examination which constitutes 30% of the A2 award. Topics include

- SHM
- Damped Oscillations
- Centre of Mass
- Frameworks
- Further Circular motion
- Kinematics
- Systems of forces
- Restitution

Careers:

The study of Further Mathematics can develop a host of skills that are essential to students continuing in their studies as well entering the workplace. These include problem-solving, logic and reasoning, and attention to detail. Further Mathematics can also lead to careers in Engineering, Finance, Business, I.T. and Teaching, among others.

MUSIC AS/A2

Examining Board: CCEA Length of Course: 1/2 years

Exam Structure

AS 1 - Performing (32.5% of AS; 13% of A level)

Pupils must create a balanced performance lasting between 5 and 7 minutes at approximately grade 4 standard which will be externally assessed.

AS 2 - Composing (32,5% of AS; 13% of A level)

Students must compose one piece of music lasting between $1\frac{1}{2}$ and $2\frac{1}{2}$ minutes, which will be internally marked and externally moderated. They may choose their own brief, compositional style and resources. Their composition must be submitted in the form of a recorded performance and accompanied by a 1000-word written commentary.

AS 3 - Responding to Music (35% of AS; 14% of A level)

Areas of Study

Module 1 - Music for Orchestra, 1700 - 1900

Module 2 - Sacred Vocal Music (The Anthem)

Module 3 - Secular Vocal Music (The Musical)

Pupils will be assessed in their listening skills by way of a 1-hour examination of aural perception and a 2 hour written examination. Pupils should develop knowledge and understanding of music for orchestra from 1700 - 1900 and Vocal Music through a study of representative works.

A2 1 - Performing (19.5% of A level)

Pupils must create a balanced performance lasting between 8 and 10 minutes which will be at least equivalent to grade 4 standard and will be externally assessed.

AS2 - Composing (19.5% A level)

Students must compose one piece of music lasting between 2 and 3 minutes, which will be internally marked and externally moderated. They may choose their own brief, compositional style and resources. Their composition must be submitted in the form of a recorded performance and accompanied by a written commentary.

AS3 - Responding to Music (21% of A level)

Areas of Study

Module 1 - Music for Orchestra, 1900 to present day

Module 2 - Sacred Vocal Music (The Mass and Requiem Mass)

Module 3 - Secular Vocal Music, 1600 to present day

Pupils will be assessed in their listening skills by way of a 75-minute examination of aural perception and a 2 hour written examination. Pupils should develop knowledge and understanding of Twentieth-century orchestral music and Vocal Music through a study of representative works.

The examinations will test the students ability to make critical judgements about unfamiliar music: through musical elements, structures and resources across a range of styles and genres.

Careers: The Creative Industry is the fastest growing in the UK, with Northern Ireland being an essential part of this. An academic course of study in Music develops key skills which are useful for further study and employment in many of the career paths in this direction and many other disciplines.

NUTRITION AND FOOD SCIENCE

Examining Board: CCEA Length of Course: 1/2 years

A stimulating course which allows the development of a detailed understanding of nutrition and food science.

In the AS units, students will explore the Principles of Nutrition, and Diet, Lifestyle and Health. They will develop knowledge and understanding of the key nutrients and their requirements through the life cycle. They will have the opportunity to explore dietary-related disorders and how they impact on health. Students who continue to A2 explore Food Safety & Quality, developing an understanding of the importance of securing a safe food supply. All A2 students will select an area of personal interest to study for a research project, which will allow the development of advanced study skills such as critical thinking, problem-solving, designing research tools and analytical aptitude to help preparation for higher education or the world of work.

AS COURSE STRUCTURE

Unit 1 - Principles of Nutrition

- The study of the macro and micro nutrients and other dietary constituents.
- · Protein , Fat, Carbohydrate, NSP, Water.
- · Nutritional requirements and current dietary recommendations across the lifespan.

ASSESSMENT: Exam 1hr 30 mins 50% AS (20% A2)

Unit 2 - Diet, Lifestyle and Health

- The study of current research in relation eating patterns and dietary disorders.
- · The concept of energy balance.
- · Cardiovascular disease, Obesity, Diabetes, Cancer and Physical Activity.

ASSESSMENT: Exam 1hr 30 mins 50% AS (20% A2)

A2 COURSE STRUCTURE

Unit 1 - Food Safety and Quality

- · Food safety as a public health priority.
- · Food contamination by chemicals and micro-organisms.
- · Food Additives, allergens
- · The legislation and controls in place to protect consumers

ASSESSMENT: Exam 2 hrs 30 mins (30% A2)

Unit 2 - Research Based Assignment

· A report on a research based activity (4,000 words)

ASSESSMENT - Coursework (30% A2)

Careers Opportunities

The course provides a solid foundation for Higher Education. Graduates can follow careers in Nutrition & Dietetics, Education, Food Design and Nutrition, Food Management & Marketing, Health Promotion, Journalism, Retail Management, Consumer Business Management, Environmental Health, Sports Nutrition, Nursing, Occupational Therapy, Pharmacy, Radiotherapy. The health aspects of the course are useful to those wishing to enter various sectors of the medical profession.

PHYSICAL EDUCATION

Examining Board: WJEC Length of Course: 1/2 years

Exam Structure - AS Level

3 compulsory components.

One written paper - 1 hour 45 mins

Performance and its Improvement through Critical Analysis

AS Theory Content: 60% AS

- 1. Anatomy and Physiology
- 2. Skill Acquisition and Psychology
- 3. Sport and Society

AS Practical (coursework) 40% AS

Candidates are assessed in one chosen activity-20%

Coaching or officiating in the same chosen practical activity - 10%

Personal Performance Portfolio -10%

Exam Structure - AS Level

3 compulsory components.

One written paper – 2 hours.

The improvements of effective performance and critical evaluation of practical activities with synoptic assessment.

A2 Theory Content 36%

- 1. Exercise and Sport Physiology
- 2. Sport and Society
- 3. Psychology and Skill Acquisition

A2 Practical (coursework) 24%

Candidates are assessed in one chosen activity, from the activity profile.

- 1. Practical performance as performer, coach or official
- 2. Investigative research

Specialist Careers

Areas of specialization for Physical Education specialists include: Physical Education Teacher, Athlete, Fitness Instructor, Outdoor Adventure Leader, Teacher - Primary or Secondary, Physiotherapist, Recreation Officer, Sports Coach, Sports Scientist and Recreation Therapist.

PHOTOGRAPHY AS/A2

Examining Board: **EDEXCEL** Length of Course: **2 years**

The AS course is one that will particularly suit those pupils who have completed a GCSE Art course.

Coursework	one project	50% of overall marks	assessed at final exhibition
Externally set Project	one project	50% of overall marks	assessed at final exhibition

Coursework

a) **Coursework one** This area of study builds up the pupils technical awareness of the subject in a number of key areas, the use of the Digital Camera, lighting techniques and the use of computer software. Each unit will have a distinct goal, giving each pupil the opportunity to display their own creative response and understanding of the subject area, linked together within a core theme. Sept-Jan

Externally Set Project

Interpretation of a theme or response to a problem set by the examination body. Each pupil is given a six-week period to prepare for the exam, researching, developing ideas and organising a final outcome to be completed within 8 hours.

The research to be completed by mid-March and the final outcome by the beginning of April.

The Exhibition - You will exhibit both projects from May onwards.

A2 photography - builds and develops the technical and visual skills from AS Level

Coursework	one project	60% of overall	assessed at final
		marks	exhibition
Externally set Project	one project	40% of overall marks	assessed at final exhibition

Coursework

b) Coursework two. The project is set to allow each pupil their strengths and build on the technical expertise gained from their AS Year. All pupils will work to the same theme, 'Reviewing the old' which involves investigation of older 19th century photographic techniques and applying a modern contexts and methods.

Externally Set Project

(As for AS level except 12 hours to complete piece)

The Exhibition (as for AS)

Careers

Studying Photography at AS/A2 level can lead to a career in: Photo journalism, Multi Media Design, Graphic Design and Web Design.

PHYSICS

Examining Board: CCEA

Length of Course: 1/2 years

AS/A2

Exam Structure

ΔS

A2

All units are externally assessed.

Unit AS1 - Forces, energy and electricity

Assessment:

Written Exam: 1hr 45 mins 40% AS (16% A Level)

Unit AS2 — Waves, Photons & Astronomy

Assessment:

Written Exam: 1hr 45 mins 40% AS (16% A Level)

Unit 3 - Practical Techniques & Data Analysis

Assessment:

A test of practical skills comprising of short tasks, and a separate paper requiring the analysis of experimental results.

2 (1 hour) components 20% AS (8% A Level)

Unit A2.1 - Deformation of Solids, Thermal Physics, Circular Motion, Oscillations and **Atomic & Nuclear Physics**

Written Exam: 2 hrs 24% A Level

Unit A2.2 - Fields, Capacitors and Particle **Physics**

Written Exam: 2 hrs 24% A Level

Unit A2.3 - Practical Techniques & Data Analysis

Assessment:

A test of practical skills comprising of 2 experimental tests and a separate paper requiring the analysis of experimental results.

2 (1 hour) components 12% A Level

Additional Information

Physics is necessary or helpful for many careers, including Engineering, Architecture, Forensics, Radiography, Medicine and Optometry. Physicists find employment in many other fields to include Education, Business, Computing and Accounting to name but a few. This course provides a knowledge and understanding of the principles and applications of Physics, which contribute to our technologically based society and our understanding of nature.

Candidates will be required to have a high standard of Mathematical Skill.

RELIGIOUS STUDIES

Examining Board: CCEA Length of Course: 1/2 years

Year	Module	Focus	Nature of assessment	Assessment weighing
Year 13 AS	AS 2	An Introduction to the Acts of the Apostles This module includes a study of the background to Acts, the beginnings of the Christian Church, Growth and expansion of early Christianity as well as a study of Paul the apostle and the broader themes of faith and witness in Acts	1hr 20 min External Exam	50% of AS 20% of A Level
	AS 7	Foundations of Ethics with Special Reference to Medical Ethics This unit will explore a number of themes and principles that are foundational to religious ethics: ethical foundations, natural law, situation ethics, utilitarianism, developments in bioethics and life and death issues. These issues will be considered in light of wider aspects of human experience and example.	1hr 20 min External Exam	50% of AS 20% of A Level
Year 14 A2	A2 2	Themes in Selected Letters of St Paul This will include Paul's Letters to the Galatians, Corinthians and Ephesians. Pupils will examine the theme: Controversy, Division and Reconciliation in relation to religion and secular society.		50% of A2 30% of A Level
	A2 7	Global Ethics This unit explores the contrasts and similarities between religious and non-religious ethics across a range of issues: freewill and determinism, sexual identity, gender justice, war and peace and justice, law and punishment. Pupils will examine the theme: Conscience, Freedom and Tolerance. They will critically evaluate issues pertaining to moral duty, the role of the state and the capacity of religion to promote tolerance and intolerance	2 hour External Exam	50% of A2 30% of A Level

Careers: R.S. can lead to careers within the fields of Law, Teaching, working for an NGO, Social work, Pastoral work, Youth Work and the Ministry. Much of the Ethics component is suited to working in various medical professions.

SPANISH

AS/A2 Examining Board: CCEA Length of Course: 1/2 years

The Spanish course introduces a range of topics of interest to young people including Relationships. Culture and Lifestyle, as well as Young People and Society and Our Place in a Changing World. It aims to develop their confidence and competence in listening, speaking, reading and writing skills and seeks to promote a critical awareness and a positive attitude towards the society and culture of the target language country.

This course provides students with a basis for further study at degree level by preparing them to use the language in both social and professional situations.

AS EXAM STRUCTURE

Context 1 - Relationships - Family Life and Influences

Context 2 - Culture and Lifestyle - Physical well-being Mental well-being and Interests and Holidays.

Culture -Study of a novel or a film

A2 EXAM STRUCTURE

Context 1 - Young People in Society -

Education and Career Planning, Citizenship and Globalisation.

Context 2 - Our Place in a Changing World-

Equality, Multi-cultural Society, Democracy and Conflict,

Sustainable Living.

Culture -Study of a novel and a societal

theme chosen from prescribed

lists.

ASSESSMENT

Paper 1

Speaking Exam, 11mn 30% of AS and 12% of A2 Presentation and Conversation

Paper 2

Listening, Reading & Use of Language Exam 40% of AS & 16% of A2 Listening, reading, grammar, translations into Spanish.

Paper 3

Extended writing Exam, 1hr -30% of AS & 12% of A2 1 essay response on a set film

ASSESSMENT

Paper 1

Speaking Exam, 15mn - 18% of A2 Discussion & Conversation

Paper 2

Listening and reading Exam 2h45mn 24% of A2 Listening, reading, summary and

Paper 3

Extended writing Exam, 1hr - 18% of A2 1 essay response on set novel

Careers: UK Language graduates work in Business services, Health/Community/Social Services, Public Administration, International organisations, Manufacturing, Wholesale/Retail Sales, Banking/Finance, Education, Hotels and Restaurants.

UNIVERSITY ENTRANCE REQUIREMENTS

The information below will prove useful if you have an area of study in mind. However, this list is by no means exhaustive (the range of courses and universities is vast), and if you have a query about the entrance requirements for any subject at Higher Education not included here you should not hesitate to ask any of the Careers staff. In addition, when choosing 'A' Levels, keep in mind that some universities, for example those in the Republic of Ireland, or **some** UK universities for **very** competitive courses e.g. Medicine do not accept Applied 'A' Levels. In short, check before you choose!

This information comes with a health warning! Please note that the following advice is based on **current** university entrance requirements. Given the fluctuating demand for places it is inevitable that grade and subject requirements will change from year to year so be warned! The Careers Department will continue to support Sixth Form students with the most current information available but, as always, **it is the student's**

responsibility to check University prospectuses and web-sites for the most up-to-date information.

Please also note that as well as your AS grades, universities will take your Personal Statement, your School Reference, your anticipated A2 grade, and especially your GCSE grades into account.

Counting UCAS Tariff Points

Many University Course Requirements will be expressed in terms of a points total. This is worked out as follows:

AS Grade	Points	A2 Grade	Points
		A*	56
А	20	А	48
В	16	В	40
С	12	С	32
D	10	D	24
E	6	Е	16

Do not double count your AS and A2 Grade in the same subject. In other words, if you get a Grade B at A2 in which you already have a Grade B in AS it counts as 40 points in total.

And remember...the most important thing is to take the initiative in seeking the best information and the clearest advice you can get at every step along the way.

Good luck!

AS SUBJECT CHOICES AND UNIVERSITY DEGREE COURSES

The following courses and universities are amongst those which require **four subjects** to be studied to at least AS level. This list is not exhaustive and it is essential that A-level students seek appropriate advice on this matter.

Medicine, Dentistry, Veterinary, Pharmacy, Law, Accounting, Universities of Oxford, Cambridge, Durham, Warwick, St. Andrew's, Imperial College London, University College London and Universities in the Republic of Ireland

The single most important factor in choosing your A-level subjects is your chance of attaining strong grades. Many university degree courses, including those listed below; **do not have** specific subject requirements:

Criminology, Law, Psychology, Theology, Public Relations, Journalism, Marketing, Media Studies, Property Investment, Communication Advertising & Marketing, International Hospitality Management

The following combinations should be borne in mind: -

Engineering: Mathematics and Physics (Chemistry useful)
Computing Science: Mathematics, Physics, ICT and Chemistry useful

Product Design: Mathematics, Technology, Science

Finance/Accounting: Mathematics useful

Architecture: Mathematics & Art "very desirable", Physics 'useful',

Art folio required

Environmental Health: Mathematics and a Science

Medicine/Dentistry /Pharmacy: Chemistry, plus at least one of Biology, Maths or Physics to A2 level. Biology must be taken to at least

AS level (year 13)

Veterinary Science/Veterinary Medicine: Chemistry, Biology, plus at least Mathematics or

Physics.

Physiotherapy: Biology, and at least one other of Maths, Physics,

Chemistry. Work Experience.

Speech and Language Therapy: English, Maths, a Science, a Mod Lang useful, Work

Experience

Sport and Exercise Science: At least one from Maths, Physics, Chemistry,

Biology, PE.

Sports Studies: History, English, Politics, Physical Education.

 Occupational Therapy:
 Biology useful

 Anatomy/Biomedical Science:
 Chemistry, Biology

 Forensic Science/Genetics/Zoology
 Chemistry, Biology

Dietetics: Two of Maths, Physics, Chemistry, Biology, and HE.

Human Nutrition: Chemistry plus another Science. **Nursing:** Biology/Chemistry desirable

Optometry: Two of Maths, Physics, Chemistry, Biology.

Podiatry: Biology + second Science useful.

Radiography: At least one Science

Teaching as a career Either...

Take A-levels in standard "school" subjects, and do an Honours Degree followed by a one-year

PGCE O

Go from A-level to Teacher Training College e.g. Stranmillis University College and do a BEd degree to go straight into teaching.