

## USEFUL WEBSITES

### [www.ucas.com](http://www.ucas.com)

UCAS is the organisation through which prospective students apply to universities in the UK. This site provides details on university courses and entry requirements (including A Level subject combinations). If you have a particular career in mind you may need certain 'A' Level subjects—check at UCAS.

### [www.careersserviceni.com/Cultures/en-GB/Homepage.htm](http://www.careersserviceni.com/Cultures/en-GB/Homepage.htm)

Site offering general careers advice.

### [www.qub.ac.uk](http://www.qub.ac.uk)

Queens University Belfast website.

### [www.stran.ac.uk](http://www.stran.ac.uk)

Teacher training is available across the UK, but many previous students have studied at Stranmillis.

### [www.ulster.ac.uk](http://www.ulster.ac.uk)

University of Ulster website

### [www.belfastmet.ac.uk](http://www.belfastmet.ac.uk)

Belfast Metropolitan College offers a range of qualifications, many at HND and Degree level.

### [www.nrc.ac.uk](http://www.nrc.ac.uk)

Northern Regional College website

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# CARRICKFERGUS Grammar School



## Senior School Subject Choice Booklet For AS & A2 Courses 2016 - 2018

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# SENIOR SCHOOL SUBJECT BOOKLET

(AT AS & A2) 2016-2018

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 respective examining bodies, course content at both AS (Year 13) and A2 (Year 14) level, coursework, and other information felt applicable.

Guidance regarding University Courses is also included to assist you further. We hope you find this useful.

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## 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:

**Business, 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: -

<b>Engineering:</b>	Mathematics <i>and</i> Physics (Chemistry useful)
<b>Computing Science:</b>	Mathematics, Physics, ICT and Chemistry useful
<b>Product Design:</b>	Mathematics, Technology, Science
<b>Finance/Accounting:</b>	Mathematics useful
<b>Architecture:</b>	Mathematics & Art "very desirable", Physics "useful", Art folio required
<b>Environmental Health:</b>	Mathematics and a Science
<b>Medicine/Dentistry /Pharmacy:</b>	Chemistry, plus at least one of Biology, Maths or Physics to A2 level. Biology must be taken to at least AS level (year 13)
<b>Veterinary Science/Veterinary Medicine:</b>	Chemistry, Biology, plus at least Mathematics or Physics.
<b>Physiotherapy :</b>	Biology, and at least one other of Maths, Physics, Chemistry. Work Experience.
<b>Speech and Language Therapy:</b>	English, Maths, a Science, a Mod Lang useful. Work Experience
<b>Sport and Exercise Science:</b>	At least one from Maths, Physics, Chemistry, Biology, PE.
<b>Sports Studies:</b>	History, English, Politics, Physical Education.
<b>Occupational Therapy:</b>	Biology useful
<b>Anatomy/Biomedical Science:</b>	Chemistry, Biology.
<b>Forensic Science/Genetics/Zoology</b>	Chemistry, Biology
<b>Dietetics:</b>	Two of Maths, Physics, Chemistry, Biology, and HE.
<b>Human Nutrition:</b>	Chemistry plus another Science.
<b>Nursing:</b>	Biology/Chemistry desirable
<b>Optometry:</b>	Two of Maths, Physics, Chemistry, Biology.
<b>Podiatry:</b>	Biology + second Science useful.
<b>Radiography:</b>	At least one Science
<b>Teaching as a career</b>	Either...

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

**Or**

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

## 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 (the new) 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
A	20	A	48
B	16	B	40
C	12	C	32
D	10	D	24
E	6	E	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 !**

## OVERVIEW

The A Level course consists of two externally examined sections: AS in Year 13 and A2 in Year 14. Most pupils will choose four subjects in Year 13 and retain three for completion at A2 Level in Year 14. When choosing courses students should bear in mind the subjects that they enjoy, the subjects in which they can maximise their ability, 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 benefiting 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**)
- (b) Using A\*=3, A=3, B=2 and C=1, a **total score of 11 points**

**In their own best interests, students should have obtained at least a 'B' at GCSE in any subject they wish to study at AS/A2.**

- (2) Some subjects may be taken at AS level without having first studied them at GCSE. In these cases students should have obtained at least a 'B' at GCSE in an allied subject as listed below: -

#### SUBJECT

Accounting  
Business Studies  
Food and Nutrition  
Government and Politics  
Geography

Music  
Photography  
Physical Education  
Religious Studies

#### ALLIED SUBJECT

Mathematics (In papers T4 & T6 or equivalent)  
English  
Biology  
History or English Literature  
Biology or Chemistry or Physics or Double Award Science **and** English  
Musicianship of Grade 5 (not including Rock School)  
Art  
Biology  
History or English Literature

#### (3) Studying Mathematics at AS Level

Will be limited to those pupils who have achieved at least a 'B' at GCSE via the study of CCEA papers T4 and T6 (or equivalent)

#### (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 Science class will be limited to those pupils who achieve a **70% in the GCSE theory paper 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.*

The following additional details apply to entry to AS Classes in September 2016: -

#### CLASS SIZE

1. 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 an allied subject(s)
2. If a class is undersubscribed it may not be offered.

#### Please Note

- In addition to the academic criteria above we reserve the right to refuse admission to the post GCSE course to any pupil whose past behaviour has been unacceptable. Furthermore we assume that those choosing to return to school after GCSE are indicating their willingness to accept and follow the rules of the School.
- Those applicants to Year 13 who have followed alternative qualifications shall be considered on the merits of those courses and their results profile.

#### 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.

### 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 staff in mid-August after the results are available.

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## 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, Health and Lifestyle as well as Young People and Society. It aims to develop their confidence and competence in listening, speaking, reading and writing skills and seeks to promote a critical awareness and positive attitude towards the society and culture of the target language country. At A2, one societal theme is studied alongside one literary text. The 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 relationships
- Context 2** - Health and Lifestyle - Physical well-being Mental well-being & Interests
- Context 3** - Young People in Society - Influences on Young People and Education and Career Planning

#### ASSESSMENT

##### Paper 1

Speaking Exam  
35% of AS & 17.5% of A2  
Presentation & Conversation

##### Paper 2

Listening, Reading Writing & Translation Exam 2hrs 45mins  
65% of AS & 32.5% of A2  
2 questions on 2 listening passages, 2 reading comprehension questions, 1 essay response to a stimulus text and 1 passage to translate into English

#### A2 EXAM STRUCTURE

- Context 1** - Local and Global Citizenship - Equality, Multicultural Society & Democracy and Conflict
- Context 2** - Environmental Awareness - Conservation, Energy & Climate Change
- Context 3** - Literature and Society - 1 novel & Societal theme will be chosen from a prescribed list.

#### ASSESSMENT

##### Paper 1

Speaking Exam  
17.5% of A2  
1 discussion based on a societal theme & 1 conversation

##### Paper 2

Listening, Reading Writing & Translation Exam 3 hours  
32.5% of A2  
2 questions on 2 listening passages, 3 questions based on 2 texts, 1 essay response on a literary text and 1 passage to translate into target language

#### CAREERS

Career opportunities are available as an Interpreter, Translation, Language Teacher, Language Assistant, Tour Guide, flight Attendant, Call Centre Operator, Tourist Office Worker, Travel Agent, Lawyer, etc.

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## RELIGIOUS STUDIES

AS / A2

Examining Board: **CCEA**

Length of Course: **1/2 years**

### Exam Structure:

YEAR	MODULE	FOCUS	NATURE OF ASSESSMENT	ASSESSMENT WEIGHTING
<b>Year 13</b> <b>AS</b>	AS 2	<b>An Introduction to the Acts of the Apostles</b> 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 25% of A Level
	AS 6	<b>Religious Ethics: Foundations, Principles and Practice</b> This unit will explore a number of themes and principles that are foundational to religious ethics: ethical foundations, natural law, situation ethics, utilitarianism, bioethics, sexuality 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 25% of A Level
<b>Year 14</b> <b>A2</b>	A2 2	<b>A Study of Acts, Galatians and 1 Corinthians</b> This will include Paul's captivity and journey to Rome, the theology of Acts, Paul's letter to the Galatians and 1 Corinthians. There will also be a section of Paul's understanding of the Resurrection.	2 hour External Exam	50% of A2 25% of A Level
	A2 6	<b>Ethics and Society</b> This unit explores the contrasts and similarities between religious and non-religious ethics across a range of issues: human rights, environmental ethics, war and peace ethics and the ethics of punishment.  There will be a synoptic element as part of both A2 modules and each area of study will require the exploration of other aspects of human experience.	2 hour External Exam	50% of A2 25% of A Level

**Careers:** 'A' Level R.E. can lead to careers within the field of Teaching, Missionary work, Social work, Pastoral work, Youth Work and the Ministry.

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## ACCOUNTING

AS/A2

Examining Board: **AQA**

Length of Course: **1/2 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.

### Year 13

#### AS Unit 1

- Purposes of accounting
- Accounting records and verification of accounting records
- Income Statement and Balance Sheet
- Adjustments to financial statements (basic)

**Written examination: 1½ hours**  
**50% of AS Level / 25% of A Level marks**

#### AS Unit 2

- Types of business organisation
- Accounting concepts
- Adjustments to financial statements (further)
- Financial statements of limited companies
- Ratio analysis
- Budgeting introduction
- ICT in accounting

**Written examination: 1½ hours**  
**50% of AS Level / 25% of A Level marks**

### Year 14

#### A2 Unit 3

- Sources of finance
- Incomplete records
- Partnership accounts
- Published accounts of limited companies
- Accounting standards
- Stock valuation

**Written examination: 2 hours**  
**50% of A2 Level / 25% of A Level marks**

#### A2 Unit 4

- Manufacturing accounts
- Marginal, absorption and activity based costing
- Standard costing and variance analysis
- Capital investment appraisal
- Budgeting
- Social accounting

**Written examination: 2 hours**  
**50% of A2 Level / 25% of A Level marks**

**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.

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## ART & DESIGN

AS/A2

Examining Board: **EDEXCEL**

Length of Course: **1/2 Years**

At AS/A2 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 **AS examination** in Art and Design are required to submit two units:

- Unit 1** - Coursework study 1 - 30% of 'A' Level 60% of AS Internally set and marked Externally moderated
- Unit 2** - Externally Set Assignment -20% of 'A' Level 40% of AS Externally set. Internally marked Externally moderated. The whole year's work is assessed in the form of an exhibition, assessed by teachers and moderated by external examiner.

### Students continue to A2 level submitting 2 units:

- Unit 3** - Coursework study 2 - 30% of 'A' Level Internally set and marked. Externally moderated
- Unit 4** - Externally Set Assignment - Externally set Internally Marked. Externally moderated 12 hr timed exam

### Additional Information

The AS may be awarded as a discrete qualification or count as 50% of the 'A' Level

### Careers

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

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## PHYSICS

AS/A2

Examining Board: **CCEA**

Length of Course: **1/2 years**

### Exam Structure

AS

A2

#### Unit AS 1 - Forces, Energy and Electricity

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

#### Unit AS 2 - Waves, Photons & Astronomy

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

#### Unit AS 3 - Practical Techniques & Data Analysis

Assessment:  
A test of practical skills comprising of 4 short experimental tests and a separate paper requiring the analysis of experimental results.  
20% AS (8% A Level)

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

Assessment:  
Written Exam: 2hrs  
40% A2 (24% A Level)

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

Assessment:  
Written Exam 2hrs  
40% A2 (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.  
20% A2 (12% A Level)

**All units are externally assessed.**

### 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 including 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.

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# PHOTOGRAPHY

# AS/A2

Examining Board: **EDEXCEL**

Length of Course: **1/2 years**

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

Coursework	one project	60% of overall marks	assessed at final exhibition
Externally set Project	one project	40% 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 marks	assessed at final 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 19<sup>th</sup> 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.

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# BIOLOGY

# AS/A2

Examining Board: **CCEA**

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 LEVEL

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

### A2 LEVEL

<b>A2 Unit 1:</b> Physiology & Ecosystems	40%	1hr 30 min examination
<b>A2 Unit 2:</b> Biochemistry, Genetics, Evolution	40%	1hr 30 min examination
<b>A2 Unit 3:</b> Investigation & Practical Skills	20%	Assessed tasks

**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.

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## BUSINESS STUDIES

AS/A2

Examining Board: **CCEA**

Length of Course: **1/2 years**

### Overview

A Level Business Studies students gain a holistic understanding of business; develop a critical understanding of organisations and their ability to meet society's needs and wants; understand that business behaviour can be studied from a range of perspectives; generate enterprising and creative solutions to business problems and issues; are aware of the ethical dilemmas and responsibilities faced by organisations and individuals; and acquire a range of relevant business and generic skills including decision making, problem solving, the challenging of assumptions and the quantification and management of information.

### YEAR 13

#### AS 1: The Competitive Business

Candidates acquire a critical understanding of marketing and operations management and become familiar with the different forms of business organisations that exist

**2 compulsory structured questions - 80 marks, 90 min exam (50% of AS)**

#### AS 2: Managing Business Resources

Candidates will be expected to understand the impact of various management and organisation structures and the role of accounting in decision making

**2 compulsory structured questions - 80 marks, 90 min exam (50% of AS)**

### YEAR 14

#### A2 1: Making Business decisions

Candidates will be expected to recognise potential conflict between the objectives of different stakeholder groups and suggest and evaluate resolutions to such conflict.

**1 compulsory structured data response - 80 marks, 2hr exam (50% of A2)**

#### A2 2: The Changing Business Environment

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

**1 written report based on case study - 80 marks, 2 hr exam (50% of A2)**

### Additional Information

Students do not have to have studied GCSE Business Studies. Performance in GCSE English and Mathematics are 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.

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## PHYSICAL EDUCATION

AS/A2

Examining Board: **OCR**

Length of Course: **1/2 years**

### Exam Structure - AS Level

#### 3 compulsory components.

One written paper – 2 hours

Performance and its Improvement through Critical Analysis

AS Theory Content: 60% – (A2 35%)

1. Application of anatomical and physiological knowledge to physical performance.
2. Acquiring, performing and teaching movement skills.
3. Contemporary studies in Physical Education.

AS Practical (coursework) 40% - (A2 15%)

Candidates are assessed in two chosen activities, from two different activity profiles - 30%

1. Complete an E.P.I.P.—Evaluating and planning for improvement in performance - 10%

### Exam Structure – A2 Level

#### 3 compulsory components.

One written paper – 2 1/2 hours.

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

A2 Theory Content 35%

1. Exercise and Sport Physiology, the response of the body to performance and training and the integration of knowledge of principles and concepts across different areas of Physical Education.
2. Historical studies in Physical Education and Psychology of sport performance.

A2 Practical (coursework) 15%

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

1. The selection, application and performance of skills in open environment.
2. Evaluation and appreciation of performance through observation and synopsis knowledge.

### 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.

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# NUTRITION AND FOOD SCIENCE

AS/A2

Examining Board: CCEA

Length of Course: 1/2 years

## Overview

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.

## 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 good foundation for Higher Education. Graduates can follow careers in Nutrition & Dietetics, Education, Food Product Development, Food Science and Technology, Health Promotion, Journalism, Retail Management, Consumer Advice, Environmental Health, Hotel Leisure and Tourism Management. The health aspects of the course are useful to those wishing to enter various sectors of the medical profession.

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# CHEMISTRY

AS/A2

Examining Board : CCEA

Length of Course: 1/2 Years

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 minutes	40%	16%
Unit AS 2	Further Physical and Inorganic Chemistry and Introduction to Organic Chemistry	Written paper	1 hour 30 min	40%	16%
Unit AS 3	Practical Assessment	Practical booklet A Practical booklet B	1 hour 15 minutes 1 hour 15 minutes	20%	8%
Unit A2 1	Periodic Trends and Further Organic, Physical and Inorganic Chemistry	Written paper	2 hours	40%	24%
Unit A2 2	Analytical, Transition Metals, Electrochemistry and Further Organic Chemistry	Written paper	2 hours	40%	24%
Unit A2 3	Practical Assessment	Practical booklet A Practical booklet B	1 hour 15 minutes 1 hour 15 minutes	20%	12%

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.

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## DESIGN & TECHNOLOGY

AS/A2

Examining Board: **CCEA**

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 a focus on key areas such as systems and control, quality of manufacture, materials processing and innovative design thinking.

### AS and A-level Specifications

#### AS 1

Product Design and Systems and Control

#### AS 2

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

#### A2 1

Systems and Control in Product Design -  
The design of Electronic and Micro-electronic Control Systems

#### A2 2

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

2 hrs external exam paper  
50% AS and 25% A2

Coursework 45 hrs – Internally assessed and externally moderated  
50% of AS and 25% of A2

2 hrs external exam paper  
25% of A2

Coursework 60 hrs – Internally assessed and externally moderated  
25% of A2

### Skills Developed

Creative and innovative practices, critical understanding of design, ability to apply knowledge and understanding on production processes, reflective practices, time management and teamwork

### Career Opportunities

Architecture  
Computer Science  
Engineering  
Graphic Design  
Product Design

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## MUSIC

AS/A2

Examining Board: **CCEA**

Length of Course: **1/2 years**

### Exam Structure

#### AS 1 - Performing (35% of AS; 14% 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 (35% of AS; 14% of A level)

Students must compose one piece of music lasting between 1½ and 2½ minutes, which will be externally marked. 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.

#### AS 3 - Responding to Music (30% of AS; 12% 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 (21% 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 (21% A level)

Students must compose one piece of music lasting between 2 and 3 minutes, which will be externally marked. 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 (18% 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:** An academic course of study in Music not only leads to traditional music-orientated careers, but develops key skills which are useful for further study and any career path.

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# 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 Level pupils will study modules F1, M2 & M3 which are each worth one third of the AS award. At A2 level pupils will study modules F2, F3 & S2. The A2 Level is based on these six equally weighted modules.

### F1 (Pure) will cover:

- Matrix algebra
- Groups
- Complex numbers
- Further co-ordinate geometry of the circle

### M2 (Mechanics) will cover:

- Further particle dynamics involving 3 dimensional vectors
- Circular motion and conical pendulums
- Work Energy & Power

### F2 (Pure) will cover:

- Partial Fractions
- Series and Induction
- Complex Numbers
- Maclaurin's Theorem
- Differential and Trigonometric equations
- Parabola and Ellipse

### M3 (Mechanics) will cover:

- Centre of Mass of composite laminae
- Resultant and relative velocities
- Elastic springs and strings
- Further energy considerations

### F3 (Pure) will cover:

- Further Differentiation and Integration
- Hyperbolic functions
- Vectors

### S2 (Statistics) will cover

- Regression and Correlation
- Linear Combinations of Normal variables
- Sampling and Estimation
- Hypothesis Testing

## 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.

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# DIGITAL TECHNOLOGY

**AS/A2**

Examining Board: **CCEA**

Length of Course: **1/2 Years**

## Additional information

The AS and A2 GCE Advanced level specifications should encourage students to:

- develop a genuine interest in digital technology;
- gain an understanding of the system development process;
- gain an awareness of a range of technologies and an appreciation of the potential impact these may have on individuals, organisations and society;
- participate in developing an application while adhering to the system development process;
- develop an understanding of the consequences of using digital technology on individuals, organisations and society, and of social, legal, ethical and other considerations of using digital technology;
- apply their skills to relevant work-related scenarios;
- carry out research and development, and present their findings in different formats;
- develop advanced study skills that help them prepare for third level education;
- demonstrate that they understand and can apply key concepts through challenging internal and external assessments.

In addition, the specification encourages students to develop:

- the capacity for thinking creatively, innovatively, analytically, logically and critically
- the skills to work collaboratively
- the ability to apply skills, knowledge and understanding of ICT in a range of contexts to solve problems
- an understanding of the consequences of using ICT on individuals, organisations and society and of social, legal, ethical and other considerations on the use of ICT
- an awareness of emerging technologies and an appreciation of the potential impact these may have on individuals, organisations and society

## AS outline

### Unit AS 1: Approaches to System Development

In this unit, students develop knowledge and understanding of the various approaches to the development of complex systems, the key stages in the development process and the outputs produced at each stage. The content of this unit underpins the learning that will take place in each of the three subsequent units. This unit is assessed through a 1 hour 30 minute written examination that includes both short and extended questions.

### Unit AS 2: Fundamentals of Digital Technology

In this unit, students develop knowledge and understanding of the fundamentals of any system such as data representation, computer architecture, software and the user interface. Along with Unit AS 1, the content of this unit will provide a foundation for progression to A2. This unit is assessed through a 1 hour 30 minute written examination that includes both short and extended questions.

## A2 outline

### Unit A2 1: Information Systems

In this unit, students develop knowledge and understanding of information systems. It acts as an extension to Unit AS 2: Fundamentals of Digital Technology for students progressing from AS Level. This unit is assessed through a 2 hour 30 minute written examination that includes both short and extended questions.

### Unit A2 2: Application Development

In this unit, students have the opportunity to become involved in a real-world situation where they can apply their skills, knowledge and understanding of digital technology to solve a problem for a specified client. Students apply their practical skills to produce a solution and associated detailed documentation for the client.

## Theory Topics Covered Include: -

Approaches to System Development, Programming, Data Representation, Data and Information, Hardware and Software, Web Technology and Multimedia, Networks, Databases, Applications of Digital Technology, Individual (moral), social (ethical) and legal considerations ,

## 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.

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## ENGLISH LITERATURE

AS/A2

Examining Board: **CCEA**

Length of Course: **1/2 years**

**Exam Structure:** Candidates must pass both modules at AS level and, if applicable, both modules at A2 level.

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 MODULE 1

The study of Drama: Coursework - Two essays of approximately 1500 words each

- (a) Shakespeare: *The Tempest*
- (b) Millar: essay based on two selected plays

**ASSESSMENT:** Internal assessment

### AS MODULE 2

The study of Poetry written after 1800 (Open Book)

Comparison of poems by Duffy and Lochhead  
&

The study of Prose 1800 - 1945 (Closed Book)

Bronte: *Wuthering Heights*

**ASSESSMENT:** 2 questions, 2 hours, 50% of AS– 25% of A2 marks

### A2 MODULE 1

The study of Poetry from 1300 - 1800 Chaucer (Closed book)

&

Drama: Tragedy The study of *King Lear* and *Heaney's Burial at Thebes*

**ASSESSMENT:** 2 questions, 2 hours, 50% of AS– 25% of A2 marks

### A2 MODULE 2

The study of prose, theme based (Open book)

- (a) Close analysis of an extract from a post 1990 novel: *The Butcher Boy*
- (b) Comparison of two novels on the same theme: *The Outsider* and *Catcher in the Rye*

**ASSESSMENT:** 2 questions, 2 hours

**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.

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## 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 C1, C2 & M1 which are each worth one third of the AS award. At A2 level pupils will study modules C3, C4 & S1. The A2 Level is based on these six equally weighted modules.

#### AS - Module C1 (Pure) will cover:

- Algebraic skills use of indices, surds etc
- Geometric skills including equations

#### AS - Module C2 (Pure) will cover:

- Algebraic skills including series, trig etc
- Geometric Skills involving circles

#### AS - Module M1 (Mechanics) will cover:

- Particle dynamics and statics
- Rigid body motion involving moments

#### ASSESSMENT:

Each module is examined by a 1½hr written paper

#### A2 - Module C3 (Pure) will cover:

- Algebraic skills developing calculus
- Geometric Skills

#### A2 - Module C4 (Pure) will cover:

- Algebraic skills developing functions
- Geometric Skills

#### A2 - Module S1 (Statistics) will cover:

- Measures of Location and spread
- Classical Probability
- Discrete and Continuous probability

#### ASSESSMENT:

Each module is examined by a 1½hr 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.

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## Structure

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

<b>AS Structure:</b>	
<b>1. <u>The Nazis and Germany 1919 - 1945</u></b> <ul style="list-style-type: none"> <li>The Weimar Republic 1919-1929</li> <li>The Decline of the Weimar Republic and the Rise of the Nazis</li> <li>Developments in Nazi Germany 1933-1945</li> </ul>	<b>1 hour 30 min exam</b> <b>Source paper</b> <b>50% AS (25% A2)</b>
<b>2. <u>Revolutionary change in Russia 1914 - 1941</u></b> <ul style="list-style-type: none"> <li>The Revolutions of February and October 1917</li> <li>Lenin's Russia 1917-1924</li> <li>Stalin's Rise to Power and Dictatorship 1924-1941</li> <li>The Economy 1924-1941</li> </ul>	<b>1 hour 30 min exam</b> <b>Structured essays</b> <b>50% AS (25% A2)</b>

<b>A2 Structure:</b>	
<b>1. <u>Clash of Ideologies 1900 - 2000</u></b> <ul style="list-style-type: none"> <li>The foreign policy of Tsarist Russia</li> <li>The Relationship between Soviet Union and Western governments from October Revolution 1917 to end of WWII</li> <li>Soviet Foreign Policy during the Cold War and response of Western governments</li> </ul>	<b>1 hour exam</b> <b>Overview Essay</b>
<b>2. <u>Partition of Ireland 1905- 1923</u></b> <ul style="list-style-type: none"> <li>The Crisis over the 3rd Home Rule Bill up to September 1914</li> <li>Political Events 1914-1918</li> <li>Developments 1919-1923</li> </ul>	<b>2 hour 30 min exam</b> <b>Sources and Essays</b>

### 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.

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.

<b>AS EXAM STRUCTURE</b>	
<b>Context 1</b>	- Relationships - Family Life and Influences
<b>Context 2</b>	- Culture and Lifestyle - Physical well-being, Mental well-being, Interests and Holidays.
<b>Culture</b>	- Study of a novel or film chosen from prescribed lists

<b>ASSESSMENT</b>	
<b>Paper 1</b>	- Speaking Exam, 11mn - 30% of AS & 12% of A2: Presentation & Conversation
<b>Paper 2</b>	- Listening, Reading & Use of Language Exam, 2hrs - 40% of AS & 16% of A2 Listening, reading, grammar, translations into English and into French
<b>Paper 3</b>	- Extended writing Exam, 1hr - 30% of AS & 12% of A2: 1 essay response on set film or novel

<b>A2 EXAM STRUCTURE</b>	
<b>Context 1</b>	- Young People in Society - Education and Career Planning, Citizenship and Globalisation.
<b>Context 2</b>	- Our Place in a Changing World- Equality, Multi-cultural Society, Democracy and Conflict, Sustainable Living.
<b>Culture</b>	- Study of a novel and a societal theme chosen from prescribed lists.

<b>ASSESSMENT</b>	
<b>Paper 1</b>	- Speaking Exam, 15mn - 18% of A2 : Discussion and Conversation
<b>Paper 2</b>	- Listening and reading Exam, 2h45mn - 24% of A2 Listening, reading, summary and translation into French
<b>Paper 3</b>	- Extended writing Exam, 1hr - 18% of A2: 1 essay response on set novel

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.

## GEOGRAPHY

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 15 m exam
- AS 2: Human Geography -  
1 h 15 m 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

AS/A2

Examining Board: **CCEA**

Length of Course: **1/2 years**

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

A2 MODULES	Length of Exam	Marks
1. Comparative Government UK/USA	2hr 15 mins	35% A2
2. Political Power	1hr 30 mins	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
- Aren't afraid of dealing with controversial matters.

### What does the course lead to?

**Skills :** 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.

**Careers:** 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 politics.

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