



**The British International School  
of Al Khobar**

**6<sup>th</sup> Form**

**Information Booklet**

**2010 - 2011**

## Certificate of Secondary Education (Advanced Level)

### Introduction

The academic year 2010 - 2011, The British International School of Al Khobar (BISAK) will be offering a range of A-Levels for the first time. The year 12 (6<sup>th</sup> Form) pupils will start the course following the EDEXCEL AS specification and will move onto the A2 specification in year 13 to qualify for a full A-Level certificate.

This will be another milestone for BISAK enabling pupils to undertake post 16 education in Kingdom that provides students with the necessary qualifications to apply for University entrance across the world. For many students who have already studied GCSE's the move from Year 11 into Year 12 to study GCE's is a logical and sensible progression.

### **What are GCEs**

- GCE (General Certificate of Education) qualifications are also known as A levels, which stands for Advanced level.
- They are usually taken by 16- to 19-year-olds, but they can be taken by students at any age.
- A full GCE (A level) is usually taken over two years but may be taken over one year.
- They are the main entry requirements for progression to higher education, and are also required for some jobs.
- All GCE specifications have now been updated and replaced with new GCEs, which have been available for first teaching from September 2008.

### **How are GCEs assessed?**

- GCEs are assessed by written examination and by coursework. For further details and weightings, please refer to your subject's specification and course guide.
- Units are graded from A\* to E. However, A\* will not be awarded at AS level, as the more challenging material is only introduced at A2.

## **Subject Available at BISAK in 2010 - 2011**

- Arabic
- Art
- Biology
- Business Studies
- Chemistry
- Drama and Theatre Studies
- English Literature
- Mathematics
- Physics

For some courses it is not necessary for you to have studied the subject at G.C.S.E. The guidelines laid down by the departments are designed to guide you to an area of study where success is possible. See individual subject content page of BISAK 6<sup>th</sup> Form Booklet.

### **General Information about studying A-Levels**

As senior pupils of the school you will find that the Sixth Form is different in a number of ways from earlier educational stages, mainly due to greater specialisation in subjects and recognition of your increasing maturity.

Naturally, the move from G.C.S.E. to AS/A2 Programme carries with it a rise in the standard of work demanded from you and the need for you to undertake private reading and research. Therefore you study fewer subjects, but in greater depth. In Year 12 it is recommended that you select 4 AS Levels and then focus on 3 A2's when you move into Year 13.

The Sixth Form is an important time in your life with a real focus on academic studies with a view to the future. It will involve a great deal of hard work and commitment, but the benefits in personal development and growth will be considerable.

## **Entry Requirements at BISAK**

The entry requirement for our Sixth Form is minimum of 5 grades of *C* or above at *G.C.S.E.* or equivalent *I.G.C.S E.* It is expected that you will have attained a grade *C* or above in *Mathematics* and *English* as these will be required for entry to most universities.

## **Non- BISAK Applicants**

If you are not from the British Curriculum and do not have *G.C.S.E.* or equivalent you will be required to submit your academic achievement results from the system you have been studying under. In the case of students studying the *IB Middle Years Programme* a minimum expectation would be the achievement of a level 5 from at least five academic areas. For students applying from the *American Diploma* system consideration will be made on your grade point average. In other cases the suitability for students to study *Advanced level* subjects will be discussed with the *Head of 6<sup>th</sup> Form* and subject teachers.

## **Application Process**

Applications for places may be made before 5<sup>th</sup> January 2010 will not require an application fee . When registering students please complete the registration form indicating which subjects your Son / Daughter may wish to study.

Application made after 5<sup>th</sup> January 2010 or to hold places made prior to 5<sup>th</sup> January 2010 (early applications), a refundable registration fee of SR3500 must be paid to the registry office. Places will be opened up for non- payment after this date. Please use the attached "Application for BISAK 6<sup>th</sup> Form Entry" document.

Applications must be made through BISAK's Registrars Office. Please contact our Registrar, Mrs.Coppard [Registrar@britishschool-ksa.com](mailto:Registrar@britishschool-ksa.com)

## **Other Entry Information**

Your school reports and references are also taken into consideration when your application is being discussed. Once GCSE, IB MYP and American Diploma results have been released, students can be allocated firm places on courses depending upon their achievement in specific subjects. At this point a change in subject choice may be necessary.

### **BISAK puts high value on its schools philosophy and objectives which states:**

The British International School of Al Khobar is an educational community that provides diverse challenging learning experiences which motivate students to develop the belief that they can succeed. The school aims, through its international environment, to inspire everyone to be world citizens by reflecting upon equality, community service and peace. All are welcomed and valued as unique individuals.

To support our Mission Statement the school's objectives are to:

- Cultivate minds to have a life long passion for learning;
- Develop the skills and positive attitudes to become independent and effective learners;
- Provide individualised and enjoyable learning opportunities;
- Foster values particularly respect, integrity and commitment;
- Promote self-confidence and self-esteem;
- Maintain a safe, caring and supportive family environment;
- Nurture an appreciation, respect and a sense of responsibility towards the environment and the natural world.
- Encourage and value international mindedness

## Which optional subjects to choose?

When considering which options to select, students and parents should be mindful of several points:

- What career and post 18 Education are you most interested in.
- How will the choices [including the subjects that will no longer be studied] impact upon further education and career plans?
- Subjects should not be chosen on account of the teacher; he or she may not be available for the entire course.
- Subjects should not be chosen on account of what one's friends have chosen; students must focus upon their own needs.
- Students should discuss their preferred options with the appropriate teachers before making their final decision in order to get a fuller picture of what will be required and expected if good grades are to be achieved.
- Students should try and choose subjects that they enjoy as these are the ones that are more likely to bring good results.

Students should also be aware that not all subjects make the same time demands and this is something that should be taken into account. Also, some subjects have a relatively even amount of time that needs to be devoted to homework throughout the course whilst others have periods of greater need such as when a deadline for a project needs to be met.

## **Transition from G.C.S.E. to AS/A level**

There is no doubt that the step up from G.C.S.E. to AS/A level is a large one. I am sure that those studying in the Sixth Form will testify to this.

The Curriculum, Evaluation and Management (CEM) Centre at the University of Durham has done extensive research in this area and have, over many years, monitored students and their progress at A level. It is important that you are aware of the main findings, so that you have an idea of your potential. Should you wish to find out more about the CEM Centre the website is [www.cem.dur.ac.uk](http://www.cem.dur.ac.uk) and the project is called ALIS (A level information system).

## Chances of success at A-Level

According to the CEM Centre, the best predictor of success at AS/A level is a student's average G.C.S.E. points score (taking the average of all subjects). This is based on the following allocation of points to G.C.S.E. grades.

<b>GRADE</b>	<b>A*</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>POINTS</b>	8	7	6	5	4	3	2	1

## Predictions

It is sometimes misleading to make generalisations, but, as a rough guide, the following shows the sort of grades a student with certain average GCSE point scores would expect to attain at AS/A level.

There are many factors which will affect the final grade achieved by a student in a particular subject, but it is useful to understand that a grade at G.C.S.E. does not necessarily translate to the same grade at AS/A level. Obviously, the final grade achieved may be higher or lower than the ones shown below as students make progress at different rates.

Average GCSE points score: A level grade prediction

- 5 D/E in each subject
- 6 C/D in each subject
- 7 B/C in each subject
- 8 A/B in each subject

## University Entrance

Entrance to university in the UK has changed over the past few years. There are more universities now and there is a much wider range of courses available. There are at present more university places available than students seeking a place, but the demand for places at the top universities remain high. Having

Most universities will expect students to have a *G.C.S.E.* grade *C* or better in English, Mathematics and preferably in Science. The top universities will have far greater expectations of you and may expect much higher grades at *G.C.S.E.*

Many universities are encouraging students to diversify their subject choice and to choose subject combinations which in the past would not have been acceptable, e.g. a mixture of arts and science subjects. This also allows you to keep your options open.

Most universities in the UK will give you an offer based on your total points score from the UCAS system. But beware, if you apply for a particularly competitive degree course, admissions tutors can be very selective and may generally prefer specific subject combinations.

**The AS level + the A2 level = a full A Level.**

A new UCAS (University and Colleges Admissions Service) points tariff has been developed

(A =120, B =100, C =80, D =60, E =40)

AS level has half the A Level point score.

### **Edexcel examinations:**

At BISAK we use Edexcel to provide our Key Stage 4 *GCSE* courses and examinations and will continue to use Edexcel for A-Levels. In making this choice we have been mindful of their existing strong presence in the Kingdom as well the excellent range of resources already in place to support the learning and teaching. One of their particular strengths is the availability of a vast range of support materials on-line and their website at [www.edexcel.com](http://www.edexcel.com) is an address with which students and parents should become highly familiar.

On the following pages there follows a brief overview of the courses that will be followed; each also shows an Edexcel course number and it is highly recommended that parents and students familiarise themselves with the relevant web pages referred to above where much fuller details of each subject can be found.

## **SUBJECT GUIDES:**

# **Arabic**

During this course you will read and listen to authentic foreign language materials and will study aspects of the contemporary society, cultural background and heritage of a country where the language is spoken. You will have opportunities to develop your understanding and awareness of spiritual, moral, environmental, ethical, health and Arabic issues.

You will extend and develop your knowledge of the grammar and vocabulary and will use this to speak, write, read and listen to the language. The aims of AS and A2 in Arabic are to encourage students to:

- Develop an interest in and enthusiasm for, language learning.
- Communicate confidently, clearly and effectively in the language for a range of purposes.
- Develop awareness and understanding of the contemporary society, cultural background and heritage of countries or communities where the language is spoken.
- Derive enjoyment and benefit from language learning.
- Acquire knowledge, skills and understanding for practical use, further study and/or employment.

## **ASSESSMENT**

The specification followed is the one offered by Edexcel. The course is assessed entirely by a final examination. The modules studied are as follows:

### **AS Arabic / A2Arabic**

UNIT 1: Understanding and Written Response in Arabic

2 hour 45 minutes paper

**The assessment for this unit has three sections.**

### **Section A**

Students will need to understand, retrieve and convey information from a short series of different Arabic language texts. They will be required to provide a mix of non-verbal and Arabic-language responses.

### **Section B**

Students will be assessed on their ability to transfer meaning from Arabic into English. They will be required to apply their knowledge of Arabic language, grammar and lexis to produce a short translation from Arabic into English.

### **Section C**

Students will write a 220-270 word essay, in Arabic, in response to a short Arabic-language stimulus.

## **UNIT 2: Understanding, Written Response and Research in Arabic**

3 hour paper

The assessment for this unit has three sections.

### **Section A**

Students will be required to read an Arabic language passage and to retrieve and convey information from this via a series of questions and answers in Arabic.

### **Section B**

Students will be expected to undertake a short translation from English into Arabic. They will be assessed on their ability to transfer meaning from an English-language passage into Arabic.

### **Section C**

Students must answer two questions, in Arabic, that each relates to a topic or a text chosen from the prescribed list. The essays should relate to topic(s) and/or text(s) that students have studied in advance of the examination.

## **COURSE REQUIREMENTS AND PROGRESSION**

To follow the Arabic course you would be expected to have achieved at least a grade A\*-C in GCSE Arabic. Many students can use their Arabic 'A2' or 'AS' level to go directly into employment in a related field of work or choose to continue their studies to degree level.

# ART

## 1.) What are the prerequisites and entry requirements for taking this course?

This is normally 5 GCSE's at grade C or above or equivalent in other educational systems. Students should have a B or above in GCSE Art, although personal cases of willing students may be assessed upon portfolios.

## 2.) Course Details and what you will learn on the course. (Give details of AS and A2 units structure and content)

Students study on the Fine Art course, where they will learn about, practice and also choose where to direct their focus on any of the following fine art disciplines:

- Painting and Drawing
- Printmaking
- Sculpture
- Alternative media

Students are required to work in at least one of the above disciplines for the duration of the course. At BISAK we have resources in painting and drawing for a very wide range of techniques, in printmaking for linocut printing and screen printing, for sculpture in three-dimensional work in plaster, wire and clay or ceramics, and in alternative media additional work may be done to complement work in other fields using digital cameras and computer programmes.

- In painting and drawing students will develop knowledge and understanding of:

The following paint qualities — plasticity, opacity, translucence, malleability and transparency of the media; the relationships between hues, tints and tones; the use of a range of tools with which to apply paint, such as; brushes, knives, sponges, fingers and rags; some of the following materials — graphite, wax; crayon, oil pastel, soft pastel, aquarelle, charcoal, ink, chalk, oil, watercolour, gouache and acrylic paint; and learn from the examples of artworks by the masters throughout history.

- In printmaking students will develop knowledge and understanding of:

Surface qualities and the transmission of the qualities of block or screen to a printing surface such as paper or fabric; the appropriateness of the medium to images and the ability to realise the full potential of their ideas through the techniques of printmaking; the following printing processes: screen printing — in which stencils are used to control the distribution of

ink, and relief printing — in which the image is transferred via the raised surface of the block.

- In sculpture students will develop knowledge and understanding of:

Producing forms in three dimensions, utilising volume, space, materials and movement; some of the following processes — fixing or joining materials such as card, metals and plastics using processes such as soldering, glueing, jointing and bolting; some of the following modelling techniques — the manipulation of plastic materials such as clay, plaster or wax using hands and/or tools, carving, cutting and abrading; some of the following materials will be used — wood, plaster, clay, card, wax and found objects/materials.

- In alternative media students may develop knowledge and understanding of:

The production processes of artworks in digital media and video; the appropriateness of the chosen media and the ability to realise the full potential of their ideas through the techniques employed.

The course consists of four parts, one unit of coursework and one exam for AS level, and one unit of coursework and one exam for A2 Level.

- AS coursework:

Students choose a theme, for example landscape painting, and through guidance experiment with different media, research subject matter, and develop work as fully as possible to create a final piece or pieces of work. Students may explore more than one theme if they wish.

- AS exam:

Students are presented with a theme set by the exam board on 1<sup>st</sup> February, which they are to explore with guidance, making experiments and developing work in order to be able to create a final outcome in exam conditions lasting eight hours in the third term of the academic year.

- A2 coursework:

Students choose a theme, such as architecture, and through guidance experiment widely with different media, research subject matter, and develop work as fully as possible to create a final piece or pieces of work. Students may explore more than one theme if they wish. On their theme students must write a personal study of 1000 to 3000 words, which may be in a book or folder form, a CD Rom, a website or webpage or a video or DVD containing text.

- A2 exam:

Students are presented with a theme set by the exam board on 1<sup>st</sup> February, which they are to explore with guidance, making experiments and developing work in order to be able to create a final outcome in exam conditions lasting twelve hours in the third term of the academic year.

### 3.) How the course is assessed. (AS and A2)

All work throughout the course is submitted for assessment. For AS and A2 the coursework and exam each count for half the marks in the case of course. To gain the A2 qualification, the AS component counts for half the marks overall:

AS Coursework = 80 marks

AS Exam = 80 marks

A2 Coursework = 80 marks

A2 Exam = 80 marks

All work is assessed by the teacher. The teacher's marks are submitted to the exam board in the UK in advance of sample moderation, where work may be chosen by the exam board to be sent to the UK or nearby assessment centre.

### 4.) What does this course combine well with and what skills you will develop?

This course combines well with English, music and drama for those wishing to pursue the arts. However, there is no reason why it cannot be taken alongside mathematics, for example, still for those wishing to cultivate themselves through the arts and humanities, as mathematics is an important element in the philosophy behind fine art. As well as developing abilities in creating art and having a good knowledge of art history, it will refine your sensibilities and enhance the perceptions of the world around you.

### 5.) What opportunities does this course open up for you in the future?

This course is a good idea for students wanting to continue their studies in art further to Art College to study any fine art subject or applied art subject such as theatre design, illustration or graphic design, (though for some subjects such as graphic design and fashion students may need to take a BTEC diploma to build up a specialist portfolio to gain entrance to these subjects at degree level) or study a degree in any fine art subject or art history at university.

Depending on the further studies you take, this course may provide a route for you to work in the field of:

- Professional fine artist; painter, sculptor or print-maker
- Illustrator
- Textile designer
- Theatre set designer
- Costume designer
- Fashion designer
- Art Teacher
- Art lecturer
- Restorer

It may be very useful to you if you want to work in the field of:

- Graphic designer
- Photographer
- Film maker or film crew
- Museum curator
- Museum guide
- Auctioneer
- Art historian
- History of art lecturer

Or, it may give you precious skills and knowledge that allow you to develop your own art for your own pleasure in your own time. Who knows where it may lead?

# Biology

## *What do I need to know, or be able to do, before taking this course?*

The qualification builds on the knowledge, understanding and practical skills that you gained in *GCSE Science* and *GCSE Additional Science* or *GCSE Biology* (to at least a grade B). You should also have at least a *C* grade in *GCSE Mathematics*, as numerical and mathematical skills are important in biology. You will also need to be able to communicate effectively, be able to plan and carry out research and think critically about problems.

## *What will I learn?*

In biology you will develop practical skills by planning experiments, collecting data, analysing experimental results and making conclusions. You will also learn how scientific models are developed, the applications and implications of science, the benefits and risks that science brings and the ways in which society uses science to make decisions.

### **Unit 1: Lifestyle, transport, genes and health**

Heart disease is one of the UK's biggest killers — what makes it so common? You will learn more about the circulatory system and the kinds of lifestyle choices, such as diet and exercise, that put you more, or less, at risk of suffering from heart disease.

You will find out how some parts of the body work, for example, about the lungs and how materials are transported around the body, and the role of enzymes.

You will also learn about genetics and what can happen if errors occur during the replication of DNA, considering the social and ethical issues raised by genetic screening and gene therapy.

### **Unit 2: Development, plants and the environment**

Do you know how you came to have your natural hair colour? You will learn that your physical characteristics have been determined by your genetic makeup and influenced by the environment. In doing so, you will learn some cell biology, about the two main types of cell division and the purpose of each type, and about sexual reproduction.

Have you also ever wondered how there came to be so many different types of organisms in the world, ranging from microscopic organisms such as viruses to huge mammals such as whales? This unit explains the term biodiversity, and also the concept of natural selection and how it can lead to adaptation which drives evolution.

In this unit you will also learn about plants and their structure, and how the properties of some plants may be used to tackle issues such as sustainability.

### **Unit 3: Practical Biology and Research skills**

Students are expected to develop experimental skills, and a knowledge and understanding of experimental techniques, by carrying out a range of practical experiments and investigations while they study units 1 and 2.

This unit will assess students' knowledge and understanding of experimental procedures and techniques that were developed when they did those experiments.

### **Unit 4: The Natural environment and species survival**

Global warming and climate change are buzzwords that appear in media headlines and have been the source of much controversy and political divide. So which side are you on and why? You will learn about the different types of evidence for global warming and the possible causes of it, and the effect it will have on animals and plants. You will also learn about ecology, photosynthesis and speciation.

This unit covers the fascinating area of immunology — the war that goes on between our immune system and pathogens. You will learn what defences the body has against invading pathogens and how some micro-organisms, such as *Mycobacterium tuberculosis*, can get the better of us by attacking our defences.

You will have the opportunity to look into the world of the forensic scientist and appreciate the application of scientific knowledge in this context.

### **Unit 5: Energy, exercise and coordination**

All mammals, including humans, have similar physiologies that facilitate movement. Why is it rare to find an athlete who is both a sprinter and a marathon runner? In this unit you will build on your knowledge about joints and movement, and learn more about the precise mechanism of skeletal muscle contraction, respiration and homeostasis in the context of exercise.

The brain is the most complicated, and probably least understood organ in the body. It has the complex task of coordinating our bodily functions and movement, making sense of all the sensory information it receives, as well as storing our thoughts, emotions and memories. As the brain is such a complicated and vital organ, there is a lot of potential for it to go wrong which can have drastic effects on the health of the person. You will also look at the effects of disease and drugs on the brain and how these effects, in turn, affect the body and the mind.

### **Unit 6: Practical Biology and Investigative Skills**

Students are expected to develop a wide knowledge and understanding of experimental procedures and techniques throughout the whole of their Advanced Level course. They are expected to become aware of how these techniques might be used to investigate interesting biological questions.

## *How will I be assessed?*

### **Assessment at AS Level**

Units 1 and 2 are externally assessed written examination papers, each lasting 75 minutes. The papers will contain objective questions, short questions and longer questions.

Unit 3 is an externally assessed written exam of 1 hour 30 minutes based on experimental techniques and procedures developed while studying units 1 and 2.

### **Assessment at A Level**

Units 4 and 5 are externally assessed written examination papers each lasting for 90 minutes. The papers will contain objective questions, short questions and longer questions.

Unit 6 is an externally assessed written exam of 1 hour 30 minutes based on students' knowledge and understanding of experimental procedures and techniques and their ability to plan whole investigations, analyse data and to evaluate their results and experimental methodology.

## *Is this the right subject for me?*

**AS and A level Biology is suitable if you:**

- have an interest in, and enjoy biology and want to find out about how things work in the biological world by application of imaginative, logical thinking
- want to use biology to progress onto further studies in Higher Education or support other qualifications or enter biology-based employment
- are taking A levels in the other sciences and/or mathematics or other relevant courses such as Physical Education and want to take another course that will support those studies.

## *What can I do after I've completed the course?*

Biology leads on to a wide range of courses and careers. This could include:

- an undergraduate degree in a life sciences, medicine, environmental science, forensic science and related courses or a BTEC Higher National (HNC and HND)
- employment, for example in the areas of biological testing, biotechnology, independent research and the food industry.

To find out more talk to your biology teacher or visit [www.iob.org](http://www.iob.org) for further information on careers and courses in biology. For the full specification check [www.edexcel.org.uk](http://www.edexcel.org.uk).

# Business Studies

## ENTRY REQUIREMENTS

There are no entry requirements for GCE Edexcel Business Studies.

Students who have received a foundation in the subject by studying for an IGCSE or a GCSE in Business Studies or Economics generally display more confidence with the subject from the start of the course, and this can lead to greater achievement at AS level.

## COURSE DETAILS AND WHAT YOU WILL LEARN ON THE COURSE

Business Studies GCE has an *enterprise theme*, to enable students to think of a new business idea and how they might research and develop it. Students will think about how their learning applies to their own business idea. The qualification will introduce students to *international business*, equipping them either to work in or to *manage a business* in an international context.

The GCE in Business Studies specification requires students to investigate different types of business organisations which could be set up to develop and sell a product or service idea in a local, national or international marketplace. At A2 level, students will study the ways in which companies grow bearing in mind the markets in which companies are operating be able to analyse numerical information to identify, for example, poor cash flow or labour productivity and the reasons for this promote a holistic understanding of business through considering how a new business idea is developed, understanding how a business is managed, how its performance is analysed and how it could trade overseas.

### The Aims of the Course:

The Edexcel Advanced Subsidiary and Advanced GCE in Business Studies specification aims to encourage students to:

- develop an interest in and enthusiasm for the study of business
- 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
- be aware of the ethical dilemmas and responsibilities faced by organisations and individuals
- 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.

## **COURSE CONTENT**

### **Unit 1: Developing New Business Ideas**

This unit covers the characteristics students would need to develop to be successful in business and how new or existing businesses generate their product or service ideas and test them through market research. Students should also consider the competition in the market; the economic climate; how the business might be financed and how much revenue the idea might generate. Topics studied:

- Characteristics of successful entrepreneurs
- Identifying a business opportunity
- Evaluating a business opportunity
- Economic Considerations
- Financing the new business idea
- Measuring the potential success of a business idea
- Putting a business idea into practice

### **Unit 2: Managing the Business**

This unit covers key activities which students may be involved in if they were to set up and/or manage a business whether small, medium-sized or large. It also introduces students to some basic management tools and models which will be developed in the A2 qualifications. Topics studied:

- Marketing Plan
- Managing the provision process
- How does a company budget efficiently?
- Managing other people

### **Unit 3: International Business**

The aim of this unit is to introduce the student to the world of international business and issues which a company trading internationally would have to consider. Topics studied:

- Why does a business seek international markets?
- Key players in the world economy
- How does a company decide which countries to target?
- Other considerations before trading internationally
- Globalisation
- Are multinationals a force for good or should they be controlled?

## **Unit 4: Making Business Decisions**

In this unit, students will be able to assess the current competitiveness of a business through performance and non performance indicators. They will analyse corporate objectives and strategy on the basis of these indicators and on external influences to the business. Students will be required to assess the causes and effects of change on a business and examine how the company could manage risk effectively. Topics studied:

- Corporate objectives and strategy
- Making strategic decisions
- Assessing competitiveness
- Company growth

### **HOW THE COURSE IS ASSESSED**

A variety of assessment techniques will be used - supported multiple-choice questions, data-response questions, case studies and a decision-making report.

#### **AS Unit 1: Developing New Business Ideas**

Examination: 1 hour 15 minutes in two sections. Worth 70 Marks

*Section A:* supported multiple-choice questions, where students write a short justification of why they chose that answer and/or why the other answers are incorrect. Worth 32 marks.

*Section B:* questions based on data. Worth 38 marks.

#### **AS Unit 2: Managing the Business**

Examination: 1 hour 15 minutes in two sections. 70 marks allocated to this unit.

*Section A:* supported multiple-choice questions, where students write a short justification of why they chose that answer and/or why the other answers are incorrect. Worth 24 marks.

*Section B:* questions based on data. Worth 46 marks.

#### **A2 Unit 3: International Business**

Examination: 1 hour 30 minutes in two sections. 80 marks allocated to this unit

*Section A:* questions based on data. Worth 35 marks.

*Section B:* case study and questions. Worth 45 marks.

#### **A2 Unit 4: Making Business Decisions**

Examination: 1 hour 30 minutes in two sections. 80 marks allocated to this unit

*Section A:* questions based on data. Worth 30 marks.

*Section B:* decision-making report and questions; the report is based on a pre-released case study. Worth 50 marks.

## **Language Assessment**

Business Studies is delivered and assessed in English, and marks will be available for quality of written language. Business students will be assessed on their ability to:

- write legibly, with accurate use of spelling, grammar and punctuation in order to make the meaning clear
- select and use a form and style of writing appropriate to purpose and to complex subject matter
- organise relevant information clearly and coherently, using specialist vocabulary when appropriate

## **SKILL DEVELOPMENT OPPORTUNITIES**

Students can be Stretched and Challenged in A2 GCE Business Studies units through the use of different assessment strategies, for example:

- using a variety of stems in questions; such as, explain, examine, assess, compare, provide the case for and against, justify, analyse, evaluate
- ensuring connectivity between sections of questions; for example through use of data response questions where answers are applied to the supplied context a requirement for extended writing
- use of a wider range of question types to address different skills; for example open-ended questions, case studies, decision-making report-writing
- use of supplied data to enable students to make deductions that support answers.

Alongside the learning of Business, students may wish to develop the key skills of:

- application of number
- communication
- information and communication technology
- improving own learning and performance
- problem solving
- working with others.

Additionally, the GCE in Business studies offers access to the Wider Curriculum: spiritual, moral, ethical, social and cultural issues, together with an awareness of citizenship, environmental issues, health and safety considerations, and topical European developments.

## **WHAT OPPORTUNITIES DOES THIS COURSE OPEN UP FOR YOU IN THE FUTURE?**

GCE Business Studies provides a solid foundation for studies at a higher level in the following subject areas: business management, business administration, accountancy and finance, human resource management, marketing, retail management, tourism management and international business.

The qualification may also lead on to a career in the commercial world, for example in banking, sales, product management or general management. Business and management skills are also considered desirable skills to have in public sector organisations or charities.

# Chemistry

## Why Study Edexcel GCE Chemistry?

This course will try to give you the skills and understanding to make decisions about the way chemistry affects your everyday life by applying concepts into contemporary areas of chemistry including:

- climate change
- green chemistry
- pharmaceuticals
- chemistry research.
- 

In addition, a GCE in Chemistry allows you to develop a range of generic skills requested by both employers and universities. For instance, a successful GCE level chemist will be an effective problem-solver and be able to communicate efficiently both orally and with the written word. Handling data will be a key part of your work, allowing you to demonstrate information retrieval skills as well as use of numeracy and ICT.

You will build up a range of practical skills that require creativity and accuracy as well as developing a firm understanding of health and safety issues. As chemistry is a subject in which much learning stems from experimental work it is likely that you will need to work effectively as part of a group, developing team participation and leadership skills. As you become more skilled you will take responsibility for selecting appropriate qualitative and quantitative methods, recording your observations and findings accurately and precisely as well as critically analysing and evaluating the methodology, results and impact of your own and others' experimental and investigative activities.

## What do I need to know, or be able to do, before taking this course?

The qualification builds on the knowledge, understanding and process skills that you achieved in GCSE Science, Additional Science and Chemistry, or applied science courses such as the BTEC First Certificate in Applied Science. It is expected that you should have at least the equivalent of a GCSE grade B in Chemistry or Additional Science, and a GCSE grade C in Mathematics. In chemistry you will need to be able to communicate effectively, be able to carry out research, work independently and critically think about problems. Good practical skills are also important as chemistry is a very practical subject.

## What will I learn?

Edexcel GCE Chemistry gives you the opportunity to study a core of key concepts in greater detail. Many of the ideas first covered at GCSE will be revisited but with a greater emphasis on explaining rather than simply describing the behaviour of molecules. While studying GCE Chemistry you will develop practical skills that include making observations, collecting data, analysing experimental results and formulating conclusions. You will also gain an appreciation of how scientific models are developed and evolve, the applications and implications of science, the benefits and risks that science brings and the ways in which society uses science to make decisions.

## **Is this the right subject for me?**

AS or A level Chemistry is suitable if you:

- have an interest in, and enjoy chemistry
- want to find out about how things work in the real world
- enjoy applying your mind to solving problems
- want to use chemistry to progress onto further studies in Higher Education or support other qualifications or enter chemistry-based employment.

## **How will I be assessed?**

### **AS Level**

You will complete a written exam that lasts for 75 minutes for each of Units 1 and 2. The papers will contain objective questions, short answer questions and extended answer questions. For Unit 3 you will be assessed in a written examination based on aspects of your practical work.

### **A Level**

You will complete a written exam that lasts for 100 minutes for each of Units 4 and 5. The papers will contain objective questions, short answer questions and extended answer questions. For Unit 6 you will be assessed on aspects of your practical work, as in Unit 3.

## **What can I do after I've completed the course?**

Whilst many job opportunities specifically using chemistry require higher qualifications, most laboratory-based jobs benefit from a chemistry qualification, for instance dental assistant or veterinary assistant. Many employers view success at *GCE Chemistry* as a clear indication of sound academic ability.

Many university courses have a significant proportion of chemistry content and a *GCE in Chemistry* from Edexcel is excellent preparation for such further study. UK HE institutions currently offer over 200 courses where chemistry is the primary subject. Often these courses can include an additional year's study, either in industry or at a university abroad. Some courses can include study in other related areas. Examples include:

- chemistry with medicinal chemistry
- chemistry with forensic science and toxicology
- chemistry with pharmacology.

Over 500 additional courses contain a notable element of chemistry as well as allowing a degree of breadth of study. These include:

- chemistry and sports science
- chemistry and politics
- chemistry with computer science.

In addition a number of other courses either specifically require or find it desirable to have a GCE in Chemistry. These include courses such as chemical engineering, medicine, veterinary medicine, biological sciences, environmental science, pharmacy and dentistry.

### Next steps!

- Visit websites to find out more about careers involving GCE Chemistry:
  - Royal Society of Chemistry for careers, courses and industrial placements  
<http://www.rsc.org/Education/SchoolStudents/index.asp>
  - Association of the British Pharmaceutical Industry (ABPI) careers website  
<http://www.abpi-careers.org.uk/>
- Discuss studying this subject with your chemistry or science teacher(s).
- Visit your careers office to find out more about careers and Higher Education courses that need GCE Chemistry.
- Visit websites to find out what courses are available at HE which include chemistry
  - UCAS website [www.ucas.com](http://wwwucas.com)
  - Specific university websites, such as  
Bristol University School of Chemistry <http://www.chm.bris.ac.uk/> or  
Surrey University School of Biomedical and Molecular Sciences  
<http://www.surrey.ac.uk/SBMS/>
- Visit the Edexcel website, [www.edexcel.org.uk](http://www.edexcel.org.uk) to obtain a full copy of the Edexcel GCE in Chemistry specification.

# Drama and Theatre Arts

BUT I WANT TO BE A ... DOCTOR.....ENGINEER.....LAWYER..... BUSINESS ENTREPRENEUR.....

It is expected that students graduating from university in the next ten years will have at least three different jobs in their lifetime. With increases in technology, the workspace is changing drastically and no one really knows what it is going to look like. With such an uncertain future, it is transferable skills to which employers and university admissions officers are looking when making their selection.

The top five attributes listed by graduate recruits in the *AGR Graduate Salaries and Vacancies* survey were:-

- Motivation and enthusiasm
- Oral communication
- Flexibility and adaptability
- Initiative / pro-activity

**Drama and Theatre Arts Students develop the following transferable skills -**

Confidence - empathy - clear communication - negotiation- curiosity - self discipline - leadership - ability to work as part of a team - self awareness - self motivation - self esteem - broadmindedness - morality - balance of interests .....

The course is offered at both AS and A2 levels. AS students take two units of work.

A2 students follow the AS course and take an additional two units. It extends work done at GCSE and aims to:

Develop their interest and enjoyment in drama and theatre both as participants and as informed members of an audience, fostering an enthusiasm for and critical appreciation of the subject develop understanding and appreciation of the significance of social, cultural and historical influences on the development of drama and theatre experience a range of opportunities to develop a variety of dramatic and theatrical skills, enabling them to grow creatively and imaginatively in both devised and scripted work integrate theory and practice through their understanding of critical concepts and the discriminating use of specialist terminology.

**Edexcel's access policy states that equal opportunities exist for all students. This course therefore is available to anyone who is capable of reaching the required standard.**

## **Unit 1: Exploration of Drama and Theatre. (60 marks)**

This is an internally assessed unit that introduces students to the content of plays written for the theatre. You will learn how to analyse plays in a variety of ways so that you become familiar with how they can be performed.

You will explore two contrasting play texts in a practical and active way.

You will

- Produce a video/DVD of one practical session.
- Prepare a set of Exploration Notes.( 3000 words)
- See a live theatre performance and write a review. (1000 words)

## **Unit 2: Theatre Text in Performance (80 marks)**

This externally assessed unit offers students the chance to demonstrate skills in a performance environment. The knowledge and understanding gained during the study of two plays in Unit 1 is used to create performances.

In the first section you perform either a monologue or duologue. In the second section you contribute to a performance of a professionally published play by a known writer by undertaking the role of either actor or designer. You also provide a concept of the interpretation for your chosen roles or designs.

## **Unit 3: Exploration of Dramatic Performance (60 marks)**

This is an internally assessed A2 unit. The knowledge and understanding gained in the AS units is used to create an original piece of theatre. Students are assessed on the research and development of their work as well as the final performance in front of an identified audience

You provide:-

- A written evaluation of the process and performance work reflecting particularly on the research and development work
- A video/DVD of the final performance.

## **Unit 4: Theatre Text in Context**

This externally examined written unit requires the detailed study of one set play text and one prescribed historical period of theatrical development.

You take a 2-hour-and-30-minute 3 section written paper .Sections A and B require you to explore one play, from a choice of three set play texts, from the point of view of a director in both an academic and practical way. In Section C you choose a historic period (you have three to choose from). You have to

see a live performance of a play from that period and write a review of the play that includes a comparison with the original staging conditions of the play.

- particularly on the research and development work
- A video/DVD of the final performance.

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# English Literature

## What do I need to know or be able to do before taking this course?

In order to study this subject you must have have *GCSE* qualifications in English Literature and English. Ideally you will have gained a 'B' or above in English Literature but all students must have gained 'C' or above in English. It is expected that all students be voracious, independent readers. Those students who have studied *GCSE* English Literature will find that the skills they have learned will prove a valuable foundation for further studies at this level. Several areas covered in the course are developments of work at *GCSE* but others are new. You will need to be prepared to study prose, poetry and drama texts and, for *Advanced GCE*, to make comparisons between texts and study 'unprepared' texts. You will have the opportunity to study both modern texts and texts from previous centuries. You will need an ability to analyse what you have read and to communicate your ideas effectively in writing.

## What will I learn on this *Advanced GCE* course?

The course will enable you to:

- Develop your interest and enjoyment in literature by reading widely
- Gain an understanding of the traditions of English Literature
- Gain an understanding of literature from outside the UK
- Communicate your response to a wide variety of texts and respond to texts of different types and periods
- Make informed opinions and judgements on literary texts
- Gain an understanding of cultural, historical and other influences on texts
- Gain experience of the Key Skills of Communication, Information Technology, Improving Own Learning and Performance and Working with Others.

## Summary of unit content

### Unit 1:

#### Explorations in Prose and Poetry

AS Prose and poetry, including texts from 1800 to 1945

One prescribed selection of poetry

One prescribed core literary heritage novel and one further novel or novella

## **Unit 2:**

### **Explorations in Drama**

AS Shakespeare and drama, including plays from 1300 to 1800  
Free choice of Shakespeare and other texts

## **Unit 3:**

### **Interpretations of Prose and Poetry**

A2 Prose and poetry, including texts published after 1990  
Three prescribed texts from a choice of six, including at least one text published after 1990, and must also include prose and poetry

## **Unit 4:**

### **Reflections in Literary Studies**

A2 Poetry, prose or drama for independent study  
Free choice of texts.

## **Summary of assessment requirements**

### **Unit number and unit title Level Assessment information**

#### **Unit 1:**

##### **Explorations in Prose and Poetry**

AS External examination: 2 HOURS

Clean copies of the prescribed examination texts must be used in the examination

Section A: unseen poetry or unseen prose, short answer response

Section B: poetry essay response

Section C: prose essay response

#### **Unit 2:**

##### **Explorations in Drama**

AS Internal assessment

2000 words maximum

Two responses: explorative study and creative critical response

Teacher assessed, internally standardised, externally moderated

### Unit 3:

#### Interpretations of Prose and Poetry

A2 External examination: 2  $\frac{1}{2}$  HOURS

Clean copies of the prescribed examination texts must be used in the examination

Section A: unprepared prose or poetry

Section B: analytical essay

### Unit 4:

#### Reflections in Literary Studies

A2 Internal assessment

2500 words maximum

Either one extended study, or two shorter studies, or a creative response with a commentary

Teacher assessed, internally standardised, externally moderated

#### Unit 1 description

##### Genre studies and critical appreciation of text

In this unit students will study the genres of prose and poetry. Groups of texts have been put together to draw out common or contrasting aspects. In poetry it is the use poets make of the conventions of writing poetry which should be taught alongside critical appreciation of the texts. Students will read one selection of poems identified for study from a choice of three published collections. Whilst it is acknowledged that narrative can be found across the genres of prose, poetry and drama, it is the use writers make of narrative in prose which should be taught alongside the critical appreciation of the novels. There is a choice of five groupings of texts. Students will read one core literary heritage novel and one further novel or novella from the same grouping to inform their reading and response. This unit meets the requirement for one genre from prose fiction, poetry or drama to be studied at Advanced Subsidiary and that one text should be included from the period 1800-1945.

#### Unit 2 description

##### Explorative study and creative critical response

In this unit students will explore drama texts by reading or watching performance (live or filmed), and by reading, viewing or listening to examples of others' responses. Texts may be studied and tasks chosen for the group or the individual as appropriate to the centre. The requirement that three texts should be studied in this unit should be interpreted to mean that in preparation for writing coursework students will study a play in detail, draw upon their knowledge of a further play(s) and/or explore relevant critical reception. This approach will enhance their ability to consider the contexts in which the texts were written and are received. Centres and students are **free to choose their texts** to comply with the need to include a play by Shakespeare and a further play written between 1300 and 1800. The further play may be another play by Shakespeare or a play from a different playwright in the period specified. Students will produce a coursework folder that demonstrates that the four assessment objectives have been fully met.

## Unit 3 description

### Comparing and contrasting texts from different genres

In this unit students will develop the skills they acquired at Advanced Subsidiary level in reading and responding to texts. As contemporary readers they will engage with recently published texts as well as other texts of different periods. In particular they should respond critically to at least one text published after 1990. They will be expected to comment on unseen prose or poetry and their response will be informed by the reading skills they have developed through their course as a whole. They will compare and contrast texts from different genres. Their independent responses will be informed by an appreciation of the contexts in which texts are written and read and by the interpretations of other readers over time. Students will study texts selected from **one** of the four text groupings offered below. In making the selection of **three** texts from a choice of six, centres and students must ensure that at least **one text** was published **after 1990** and that **prose and poetry** are **both included** in the reading preparation. Each section allows students the opportunity to select texts within or across periods. It is not necessary to study the three texts in the same level of detail and students should be encouraged to view the texts in relation to each other on key aspects. This unit and unit 4 are synoptic units and require students to demonstrate that they can read and respond independently and with increasing depth in their responses.

## Unit 4 description

### Independent reading and research

This unit allows teachers and students **free choice of texts**, unrestrained by date requirements or genre, in order to undertake independent reading and research. The three texts chosen could include works of literary criticism or cultural commentary. Texts may be studied and tasks chosen for the group or the individual as appropriate to the centre. The texts may relate to each other in a variety of ways such as by movement, or by period or by author. The requirement that three texts should be studied in this unit should be interpreted to mean that in preparation for writing coursework students will study one text in detail, draw upon their knowledge of a further text(s) and/or explore relevant critical reception. Teachers and students may take the opportunity to develop interests aroused by the study of texts in other units, or by types of texts not considered elsewhere. As readers and critics of literary texts, students should demonstrate that they have synthesised and reflected upon their knowledge and understanding gained throughout the course. Together with Unit 3, this unit is synoptic and requires students to demonstrate that they can read and respond independently and with increasing depth in their responses.

### What skills will I develop?

As well as covering advanced level study of English literature, this course will enable you to develop some Key Skills, which will be essential to you whatever you go on to do afterwards. The Key Skills you can develop during this course are listed below, together with some examples of how Key Skills can be used in the subject.

## **Communication**

- Taking part in group discussions about texts
- Making presentations on aspects of texts, eg staging a scene from Shakespeare
- Writing two different types of documents on complex subjects

## **Information Technology**

- Using two different databases such as CD-ROMS, Internet etc to search for information
- Presenting information from two different sources, using desk top publishing and word processing skills

## **Improving Own Learning and Performance**

- Planning your coursework folder or your reading of a number of texts over a period of time
- Following a plan to meet your coursework or reading targets

## **Working With Others**

- Working with others to plan and present a group performance of a scene from a play
- Working with others to plan a group presentation based on texts studied

## **What could I go on to do at the end of my course?**

Students with AS or Advanced GCE English Literature have a wide range of possible career and higher education opportunities. You will learn and use a wide variety of transferable skills during the course. These include writing for a variety of purposes, responding to literary texts, expressing informed and independent opinions and identifying and developing the links between different parts of the subject. These skills are in demand from employers, universities and colleges and are also valuable in their own right. English Literature can be studied as a single subject in higher education or can be combined with a wide variety of other subjects. It could form a good basis for study in any arts-based subject in combination with, for example, history, media studies, philosophy, law, politics or languages. Many students will also use their qualification to go straight into employment rather than into higher education. A wide range of occupations is open to students with an AS or Advanced GCE in English Literature. The qualification can lead to further training in areas such as journalism, the media or the law.

# Mathematics

## 1. What are the prerequisites and entry requirements for taking this course?

GCSE grade B or above in Mathematics.

## 2. Course Details and what you will learn on the course. (Give details of AS and A2 units structure and content)

### **COURSE DESCRIPTION:**

The AS course consists of three equally weighted modules.

All candidates study Core 1, Core 2 and Statistics 1.

The A2 course consists of three further modules.

All candidates study Core 3, Core 4 and Mechanics 1.

### **Year 12 AS**

In year 12 you will study 2 modules of Pure Mathematics (C1 and C2), and one module in Mechanics or Statistics, and take examinations in each of these areas. When studying Pure Mathematics at AS and A level you will be extending your knowledge of such topics as algebra and trigonometry, as well as learning some brand new ideas such as calculus.

If you choose to study Mechanics you will learn how to describe mathematically the motion of objects and how they respond to forces acting upon them, from cars in the street to satellites revolving around a planet. You will learn the technique of mathematical modelling; that is, of turning a complicated physical problem into a simpler one that can be analysed and solved using mathematical methods.

If you choose to study statistics you will learn how to analyse and summarise numerical data in order to arrive at conclusions about it. You will extend the range of probability problems that you started for GCSE by using the new mathematical techniques studied on the pure mathematics course.

### **Year 13 A2**

You will study two more modules of Pure Mathematics (C3 and C4) and choose another module in Mechanics or Statistics. It may be possible for suitably qualified individuals to take 3 extra modules towards an AS in Further Mathematics.

## Mathematics Structure of qualification

Compulsory unit	Optional Unit
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### GCE AS Mathematics

Core Mathematics 1	Core Mathematics 2	Application unit M1, S1 or D1
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### GCE AS Further Mathematics

Further Pure Mathematics 1	Application or FP unit	Application or FP unit
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### GCE AS Pure Mathematics

Core Mathematics 1	Core Mathematics 2	Core Mathematics 3
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### GCE AS Further Mathematics (Additional)

Application or FP unit	Application or FP unit	Application unit
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### Application

### GCE A Level Mathematics

Core Mathematics 1	Core Mathematics 2	Application unit M1, S1 or D1
Core Mathematics 3	Core Mathematics 4	Application unit M1, S1 or D1 or M2, S2 or D2

### GCE A Level Further Mathematics

Further Pure Mathematics 1	Application or FP unit	Application unit
Further Pure Mathematics 2 or 3	Application unit	Application unit

## GCE A Level Pure Mathematics

Core Mathematics 1	Core Mathematics 2	Core Mathematics 3
Core Mathematics 4	Further Pure Mathematics 1	Further Pure Mathematics 2 or 3

## GCE A Level Further Mathematics (Additional)

Application or FP unit	Application unit	Application unit
Application unit	Application unit	Application unit

### 3. How the course is assessed. (AS and A2)

#### Assessment

Each module is examined by a 1 hour 30 minute examination paper. (AS & A2)

Examining Board: Edexcel

#### TYPE OF ASSESSMENT

3 modules at AS and a further 3 modules at A2. Each module is assessed by a final examination.

## Assessment objectives and weightings

	<b>The assessment will test students' ability to</b>	<b>Minimum weighting</b>
A01	recall, select and use their knowledge of mathematical facts, concepts and techniques in a variety of context	30%
A02	construct rigorous mathematical arguments and proofs through use of precise statements, logical deduction and inference and by the manipulation of mathematical expressions, including the construction of extended arguments for handling substantial problems presented in unstructured form	30%
A03	recall, select and use their knowledge of standard mathematical models to represent situations in the real world; recognise and understand given representations involving standard models; present and interpret results from such models in terms of the original situation, including discussion of the assumptions made and refinement of such models	10%
A04	comprehend translations of common realistic contexts into mathematics; use the results of calculations to make predictions, or comment on the context; and, where appropriate, read critically and comprehend longer mathematical arguments or examples of applications	5%
A05	use contemporary calculator technology and other permitted resources (such as formulae booklets or statistical tables) accurately and efficiently; understand when not to use such technology, and its limitations. Give answers to appropriate accuracy.	5%

#### **4. What does this course combine well with and what skills you will develop?**

The study of Pure Mathematics, in core modules, develops a variety of skills which promote the understanding of coherence and progression in mathematics. In areas of mathematics such as algebra and trigonometry are extended and new areas such as co-ordinate geometry and calculus are introduced. Logical reasoning, modelling and problem solving are also developed. These skills play a crucial role in the study of the applied mathematics modules Statistics and Mechanics, where 'real-life' problems are tackled.

These skills encourage confidence, enjoyment and satisfaction through the development and use of Mathematics in a variety of contexts and promote an awareness of the relevance of Mathematics to other fields of study and the World of Work

#### **5. What opportunities does this course open up for you in the future?**

A level Mathematics is a much sought after qualification for entry to a wide variety of full-time courses in Higher Education. There are also many areas of employment that see a Mathematics A level as an important qualification and it is often a requirement for the vocational qualifications related to these areas. Higher Education courses or careers that either require A level Mathematics or are strongly related include Economics, Teaching, Medicine, Psychology, Architecture, Environmental Studies, Engineering, Computing and Accountancy. If you should wish to continue your study of mathematics after A levels you could follow a course in Mathematics at degree level or even continue further as a postgraduate and get involved in mathematical research.

# Physics

## What do I need to know, or be able to do, before taking this course?

The qualification builds on the knowledge, understanding and process skills that you achieved in *GCSE Science*. You will need at least a *GCSE* grade B in *Physics* or *Additional Science* (or equivalent). You should also have at least a grade C in *GCSE Mathematics* (or equivalent) as numerical and mathematical skills are important in physics. Communication is also important as you will need to be able to communicate effectively, carry out research and critically think about problems.

## What will I learn?

**Unit 1:** This unit leads on from your *GCSE* studies.

**Physics on the go** You will learn about motion, forces, energy, power, flow of liquids, viscosity and properties of materials. Applications that use these concepts include sports, the production of sweets and biscuits, and spare-part surgery.

**Unit 2:** The physics content of this unit is related to applications that include medical physics, music, technology in space and solar cells.

**Physics at work** You will learn about waves including standing waves, refraction, polarisation, diffraction and the nature of light. You will also learn about electric circuits, resistivity, thermistors, emf and internal resistance.

**Unit 4:** The physics content of this unit is related to applications that include transport, communications and display techniques. It is also related to exciting, current research in the field of particle physics.

You will learn about momentum, circular motion, electric and magnetic fields, evidence for a nuclear atom, particle accelerators, particle detectors and different types of sub-atomic particles.

**Unit 5:** The physics content of this unit is related to applications that include the construction of buildings in earthquake zones and a detailed exploration of astrophysics and cosmology.

**Physics from the Big Bang to the Big Crunch** You will learn about thermal energy, radioactive decay, simple harmonic motion, resonance, gravitation, the life cycle of stars, fission, fusion and the fate of the universe.

While studying these units you will develop practical skills that include planning experiments, collecting data, analysing experimental results and making conclusions. You will also gain an appreciation of how scientific models are developed and evolve, the applications and implications of science, the benefits and risks that science brings, and the ways in which society uses science to make decisions.

Two other units (**3: Exploring physics** and **6: Experimental physics**) are not shown in the above table because they are experimental skills you will develop while you are studying the above units.

### **Is this the right subject for me?**

**AS Physics** is suitable if you:

- want to progress to the full A-level
- want a grounding in a relevant worthwhile qualification of recognised value
- want to broaden your educational experience before making a decision about which A-levels to take
- are taking A-levels in the other Sciences and/or Mathematics or other relevant courses such as Design and Technology and want to take another course that will support your studies.

**A2 Physics** is suitable if you:

- have an interest in, and enjoy, physics
- want to find out about how things work in the physical world
- enjoy applying your mind to solving problems
- enjoy carrying out investigations by the application of imaginative, logical thinking
- want to use physics to move on to further studies in Higher Education, support other qualifications or enter physics-based employment.

### **How will I be assessed?**

**AS** For Units 1 and 2 you will do a written paper that lasts for 80 minutes. The papers will contain objective questions, short questions and longer questions. For Unit 3 you will do an experiment that is based on either a physics-based visit or a case study of a practical application of physics. You will use the skills that you have gained while studying the AS to plan an experiment, do the experiment to obtain data, analyse the data and produce conclusions.

**A2** For Units 4 and 5 you will do a written paper that lasts for 95 minutes. The papers will contain objective questions, short questions and longer questions. For Unit 6 you will use the skills that you have gained to plan an experiment, do an experiment to obtain data, analyse the data and produce conclusions.

### **What can I do after I've completed the course?**

Physics leads on to a wide range of courses and careers. You could use Physics to support other qualifications or move on to further studies or employment, including:

- a BTEC Higher National (HNC and HND) or a degree course such as Physics, the Sciences, Medicine, Metrology, Engineering (including Chemical Engineering) and related programmes
- employment in the area of, for example, radiography or biotechnology.

In fact, Physics is recognised as an entry qualification for a wide range of Higher Education courses and employment opportunities.

## Next steps!

You could:

- visit [http://learningphysics.iop.org/beyond\\_school/careers/index.html](http://learningphysics.iop.org/beyond_school/careers/index.html) for further information on careers in physics
- discuss the possibility of studying this subject with your Physics or Science teacher(s)
- visit your careers office to find out more about careers and Higher Education courses that need GCE Physics
- order free physics careers booklets from the Institute of Physics website:  
[http://www.iop.org/activity/education/Promoting\\_Physics/Career\\_Resources/page\\_5893.html](http://www.iop.org/activity/education/Promoting_Physics/Career_Resources/page_5893.html)
- visit the Edexcel website, [www.edexcel.org.uk](http://www.edexcel.org.uk), to obtain a full copy of the Edexcel GCE in Physics specification.